

Palomar Heights – Palomar Health Downtown Campus

January 20, 2021

Request to Deny the Palomar Heights Project

Honorable Mayor McNamara and Honorable City Councilmembers,

The approved Downtown Specific Plan (DTSP) was developed over an eight-year period and adopted in August 2013. During this time, residents, downtown business owners, Downtown Business Association, City staff, Planning Commissions and City Councils gave input, discussed, and debated the proposed specific plan with the goal of updating the vision for Downtown.

This effort not only recognized and respected the historic character of downtown but also considered the future; envisioning an attractive, pedestrian friendly, economically vital city center providing social, cultural and residential focus. To ensure all Downtown development fulfills the vision of the DTSP, as the governing document, proposed projects are to be reviewed and assessed for compliance by its principles and guidelines. The current proposal completely misses the mark.

I have reviewed the Developer's five submittals with observations and comments based on the approved DTSP. More detailed observations are on the second page of this letter.

General Observations:

The proposed project employs site and grading designs that ignore existing site topography and the surrounding context resulting in significant grade change along street edges and public sidewalks. This approach, along with the fact that Buildings 1, 18, 23 & 24 propose parking garages on the ground floor level, isolates the project physically, visually and psychologically from the surrounding neighborhoods and does not provide the pedestrian environment which is a central goal of the DTSP.

Conclusions:

- This site is a once-in-a-generation opportunity. Any project built here will likely remain for many years and will, for better or worse, greatly impact Downtown and Escondido.
- The project as proposed is a forced fit. It is a suburban solution that can be found on any flat site, anywhere in Southern California. It does not add to the character, scale and established walkable rhythm of downtown. It is, in fact, the antithesis of what was envisioned by the Downtown Specific Plan.
- Every building matters. Each one – good or bad – is part of the visual fabric that expresses Escondido's character and values. We should not accept, just for the sake of adding more housing, compromised site planning, grading design and architecture.
- We live in an age of indistinguishable architecture that erodes the differences and distinctiveness of cities and neighborhoods. This site, our historic downtown and Escondido residents deserve a project designed specifically for this site, in a unique neighborhood and city.
- We have a thoughtful Downtown Specific Plan that, by employing time tested planning principles, honors the scale and rhythm of the historic character of downtown, yet embraces this current place in time and the future.
- Successful planning and architecture must embrace and react to the nature of its site and surrounding context. It is important to note that the proposed development will require a Specific Plan Amendment, General Plan Amendment, and Grading Exemptions

This site, Downtown and the residents of Escondido, deserve an extraordinary project that contributes to the character, vitality and Pride in Place of Escondido. What has been proposed is ordinary, at best.

Respectfully,



Ken Erickson, Architect

Detailed Observations

Apartment Buildings:

Building One

- Along East Valley Parkway, there are retaining walls 2'-21' in height and with slope banks, results in the ground-floor garage being an average of 11' above the adjacent sidewalk. The first floor of residential is approx. 9-10' above that. Distances from building to street and sidewalk are approx. 20' and 35'.

Building 18

- Limited grade elevation information was provided, but based on section B, it appears at one point the ground-floor (garage level) is 10 -12' below Grand Avenue with the face of building 8-10' away from a retaining wall. The first floor of residential is approx. 9-10' above that.

Building 23

- Limited grade elevation information was provided, but it appears the ground-floor (garage level) is 5 - 10' above Valley Boulevard. The first floor residential is approx. 9-10' above that.

Building 24: Senior Apartments :

- The first floor of residential varies in height from 10-12' above the adjacent sidewalk
- The small lobby has solid walls with only one door to Valley Boulevard. This will appear as a secondary entrance and does not contribute to the activation of the pedestrian experience.
- On the front elevation, several openings for garage ventilation are shown. With the garage floor below the sidewalk level, there will be views into the parking area, which is strongly discouraged in the DTSP.

The "Villas" and "Rowhomes":

- The Villas and Rowhomes are automobile-orientated suburban solutions. With surface parking, drive aisles and driveways, these buildings (the "Villas" in particular) will be surrounded by large areas of asphalt.
- The majority of Villas have unit entries located on drive aisles where cars access garages. The landscaping in this area amount to small pockets every 20'. This space, with 3-story buildings on either side, is essentially an alley, which does not provide pedestrian oriented entries.
- Adjacent to Fig Street, with the combination of retaining walls and slope banks, the building ground-floors range from 11'- 20' above the adjacent sidewalk.
- Adjacent to Grand Avenue, some buildings are approx. 7' away from retaining walls and as much as 8' below street level.



North County Group
Sierra Club San Diego
P.O. Box 2141
Escondido, CA 92033

January 19, 2020

Mayor and City Council
City of Escondido
Via Email

RE: Request to DENY Specific Plan amendments and Palomar Heights proposal; recommend that the City Council convey a recommendation to the Palomar Hospital Board to re-issue a Request for Proposals

Dear Mayor and Councilmembers:

Sierra Club North County Group (NCG) represents 2,700 members in inland North San Diego County and our Chapter has 20,000 members and supporters in the County. NCG has a long-standing interest in this issue and has been very involved in efforts to secure the kind of high-density, transit-oriented infill project the community needs. NCG has been an active participant in the Palomar Heights environmental review process.

Sierra Club strongly supports transit-oriented development and **the old hospital site is probably the premier location in the entire city for a signature, quality, high-density project offering a range of housing options.** The site is currently zoned for 1,350 DU. The Integral proposal includes only 510 DU. It includes no deed-restricted affordable units. This location should be for a transportation supported development and should not be squandered on an ordinary townhome product like the proposed Palomar Heights.

Summary of Objections

- a. Any development at this site should be high-density, 900-1,000 units at least.
- b. Any exemption to the Community Facilities District (CFD) fees is inappropriate.
- c. Any development in this location must include affordable housing.
- d. Any development here should integrate walkable/bikeable and transit use and GHG reduction measures into its design.
- e. The needs of the city have changed and this project should be required to meet them.
- f. There should be a commitment that construction jobs pay family-supporting wages, build capacity in the region, contain workforce standards, and commit to local hire from vulnerable populations.
- g. The project should be denied, a true objective appraisal be conducted, and the Request for Proposals re-issued.
- h. Site should be integrated into the East Valley Specific Plan Initiative

- i. The City should not/cannot move forward until it has a qualified climate plan in effect and until public comments are adequately addressed in the FEIR.
- j. Due to the excessive length of time Integral has tied up this project, the city has been unable to capitalize in renewed interest in Escondido by other developers.

1. Any development at this site should be of higher-density, closer to the planned zoning.

This site is perfect for higher density development. Just some of the reasons include:

- It has high density zoning already.
- It will not dislocate residents in an existing neighborhood.
- It is in close proximity to services, downtown Escondido, and transit.
- Taller buildings should be acceptable there since site already has high-rise buildings.
- It is the signature, cornerstone location in downtown Escondido.

We understand that staff has suggested that 1,500 DU is too high logistically, however, a future project should get much closer to this density. **We recommend at least 900-1,000 DU minimum density.**

2. Any exemption to the Community Facilities District (CFD) fees is inappropriate.

We understand Integral is resisting the necessary Community Facilities District (CFD) fees appropriate to its project. CFDs are important because they ensure that developer profits are not subsidized by future generations of taxpayers. The time is long-overdue for developers to pay, at least closer to, the true cost of their projects. To more properly reflect the cost of development, Escondido City Council necessarily adopted a Community Facilities District rules for significant new development in the city. Appropriate development in the city should be required to pay these fees. It is the cost of doing business.

Last, our experts have advised us that **any reduction or exemption to fees will constitute a public subsidy under the law and additional requirements must be applied.**

3. Any development in this location must include significant affordable housing.

Done correctly, this project has an opportunity to fulfill both above moderate (market rate), work force, **and** affordable categories needs by leveraging as much of the current density and taking advantage of incentives such as the state's density bonus program (up to 35% additional density and other incentives if there is provision of deed-restricted affordable units).

The community has long requested, as did some on the Planning Commission, that this site must include significant affordable housing at this site. The response from the developer that the presence of some age restricted housing is sufficient is incorrect. Our need is maximum production of deed-restricted affordable housing for low-income people and is still not included. **The project should be denied on this deficiency alone.**

We need to expand and diversify our housing options to include designated affordable housing and workforce market rate housing affordable to our professional families, teachers, public safety, health care, construction labor force, and other working families.

It is worth pointing out that the new state requirements for surplus land disposed by public entities ([AB 1486](#)) would require 25% affordable units for a mixed-use development like this one. While Integral may have met an earlier deadline that does not require such inclusion of affordable housing, the times demand it. We hope that once this project is rejected, a future builder will support our local need and rules.

4. Any development here should integrate walkable/bikeable and transit use and GHG reduction measures into its design.

A primary feature of this location is its location along a major transportation corridor, next to downtown, two blocks from the Escondido Bike Trail, and one mile from a major transit stop. To meet climate goals, new housing like this should incorporate easy access to transportation options. Innovative car sharing, cost of use parking, free and subsidized transit passes for youth, seniors, and other users, and aspects to reduce other car commuting should be part of the proposal.

In addition to major environmental benefits, maximizing location of housing closer to jobs and transit also lowers the transportation burden for households. In [Escondido](#), transportation costs range from 22% of the household budget. The California Air Resources Board's 2018 report on SB 375 implementation identified a need to provide more affordable housing choices near jobs and transit to help reverse the trend in rising Vehicle Miles Traveled (VMT). Escondido is lucky to have a Sprinter station and well-defined transportation corridors in place. This project doesn't capitalize on any of them.

Location on the transportation corridor



5. The needs of the city have changed and this project should be required to meet them.

In so many ways, Escondido and the world have changed since the RFP was initially awarded. The region and the city need a partner that reflects those needs and changes. We have seen the 'highest-and-best' proposal from Integral of what their vision for the site is, and it is not the vision of our members or our community. Primarily, it includes no affordable housing, no meaningful links to transit, and leaves over 500 units of potential affordable and first-time buyer units 'on the table'. It fails to meet our current needs.

6. There should be a commitment to labor standards to ensure jobs pay family-supporting wages, build capacity in the region, and commit to local hire from vulnerable populations.

The region has cutting-edge, state-approved apprenticeship facilities and a highly skilled, trained, and qualified construction workforce. As we have seen many times, linking strong job quality and workforce standards with development projects that provide training and work opportunities for County residents through a Project Labor Agreement with key provisions including participation in state-approved joint labor-management apprenticeship; local hire with enforceable standards targeting vulnerable communities and populations, like veterans; and labor peace result in successful projects that deliver community and local economic benefits.

7. The project should be denied, an updated and objective appraisal be conducted, and the Request for Proposals re-issued.

We join others in wanting housing and progress on this site and believe the best and the most expedient way to sell the property and secure a quality project is to re-open the option to compete for this site to other development interests.

8. Site should be integrated into the East Valley Specific Plan Initiative

The target area due east of the old hospital site is currently undergoing re-visioning by the city. This is an exciting development that any project at the old hospital site should anchor. Sierra Club NCG has submitted comments separately on that effort, but the plans should be integrated. Piece-meal planning of a city center is bad practice.

9. The City should not/cannot move forward until it has a qualified climate plan in effect and until public comments are adequately addressed in the FEIR.

The previous climate action plan expired at the end of 2020. The city currently does not have a climate plan in effect, therefore, we are unclear how this project can legally move forward until a qualified plan is adopted. Further, a majority of the Planning Commission forwarded a deficient ECAP to you for consideration so, until the Council acts, the realization of an adequate climate plan is now in question.

Further, responses to comments on hazardous building materials in the FEIR are inadequate. A mere statement that the developer will comply with the law is totally insufficient. Of course, they must comply with the law. Knowing, as they do, that there are USTs and asbestos in the building the FEIR must include the specific removal plan, provide detailed community and worker health and safety plans, air monitoring plan, designation of the location where materials will be taken and the GHG analysis of transporting the wastes there. A soil management plan should be prepared as a contingency in the event that petroleum-hydrocarbon soil is encountered during removal of the existing underground storage tanks and/or during site preparation and grading. As written, this 'mitigation' measure is insufficient.

10. Due to the excessive length of time Integral has tied up this project, the city has been unable to capitalize in renewed interest in Escondido by other developers.

We have heard many opine, while they don't like the project, they are concerned this is the only project available to us. It is important to remember due to legal restrictions, non-

compete rules, and other practices, developers who may be interested in the site are unable to propose any alternatives.

To begin to understand the kind of project other communities have developed in their city centers and other key properties, please consider the housing sections of the Chula Vista Bayfront Master Plan and projects outlined by the Partnership for Downtown Escondido in its website <https://www.downtownescondido.org/>. We agree with the Partnership that this project will not achieve the economic potential for the city promised by the quality of this location. The Council is missing a huge opportunity by accepting this grossly inappropriate and underwhelming project for this iconic location.

In conclusion, there are new realities our city and world face now and there is new interest in our city. We should ensure that we capitalize on these changing dynamics. **There is no more perfect location for high-density development on a transportation route.** The Council should demand more from this developer or find a new one.

Thank you for the opportunity to comment on this important issue.

Sincerely,



Chair, Conservation Committee
Sierra Club North County Group

cc.

Mike Strong, Community Development Director
Adam Finestone, Principal Planner
Planning Commission
Coleen Clementson, SANDAG



**2020-2021
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- John Schwab
All Brand Toner
- Cassandra Schaeg
Sip Wine & Beer
- Stan Weiler
Howes, Weiler, & Landy

December 18, 2020

City of Escondido

City Council

201 North Broadway

Escondido, CA 92025

RE: Escondido Chamber Supports Harvest Hills Approval

Dear Council Members,

The Escondido Chamber of Commerce is proud to support the Palomar Heights development project as approved by the Escondido Planning Commission on September 22, 2020.

Palomar Heights is the type of development that is essential to the revitalization of downtown Escondido. The type of housing that is provided is a good mix for the downtown area. It provides a range of housing types including a senior housing component that will bring with it a variety of people living within walking distance of local shopping and dining opportunities.

The project also contains retail and restaurant uses that will bring additional visitors to the downtown area. With the restaurant and bar being located on the upper floors of the large building at the corner of Grand Avenue and Valley Boulevard, patrons will be able to look westward down Grand Avenue to enjoy the view of the sunset and the resurgence of local visitor activity.

In addition to the much-needed housing and dining opportunities, Palomar Heights also brings a significant economic benefit to the City of Escondido. It is estimated that the city will receive over \$8,400,000 in development impact fees and approximately \$2,200,000 in school fees. It is also anticipated that the city will receive over \$700,000 annually into the City General fund via property tax and sales tax revenue. It is interesting to note that although Palomar Hospital generated jobs, it did not generate tax revenues being that it was a quasi-governmental entity. The additional tax revenues generated by the Palomar Heights project are the type of funds that the City uses to pay for the benefits all Escondido citizens will enjoy.





During the 4-year construction period, the project should generate approximately 317 jobs with nearly \$19,000,000 in annual labor income as well as 272 permanent jobs with an annual labor income of just under \$14,000,000 after the completion of the project.

Based on the careful review and consideration of the Board of Directors, the Escondido Chamber of Commerce supports the Palomar Heights project and urges the City council to approve this project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'JRK'.

James Rowten

President & CEO

Escondido Chamber of Commerce

From: info@domainworld.com
To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Heights
Date: Friday, October 2, 2020 8:14:28 AM

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Tuesday, September 22, 2020 6:42:41 PM

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Friday, September 25, 2020 1:45:57 PM

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

From: info@domainworld.com
To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Wednesday, October 7, 2020 9:29:43 PM

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Monday, October 12, 2020 10:53:15 AM

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Friday, October 30, 2020 12:05:46 PM

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

From: info@domainworld.com
To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Tuesday, November 17, 2020 4:33:51 AM

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Wednesday, November 18, 2020 8:46:00 AM

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To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Friday, November 20, 2020 8:44:53 AM

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To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Monday, November 23, 2020 2:06:17 PM

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To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Monday, December 7, 2020 11:37:15 AM

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To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Monday, December 14, 2020 9:56:00 AM

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Monday, December 14, 2020 9:56:02 AM

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To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Monday, December 14, 2020 9:56:11 AM

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From: info@domainworld.com
To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Tuesday, December 22, 2020 5:26:48 PM

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From: info@domainworld.com
To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Monday, January 4, 2021 12:42:36 PM

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

From: henryquinnhammond@gmail.com
To: [Palomar Heights Project](#)
Subject: [EXT] I Support Palomar Hieghts
Date: Saturday, January 16, 2021 2:01:29 PM

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

From: [Lori Pike](#)
To: [Adam Finestone](#)
Subject: FW: Contact Council (select recipient from drop-down list): Opposing Palomar Heights
Date: Wednesday, January 20, 2021 1:12:16 PM

From: Bernadette Bjork
Sent: Wednesday, January 20, 2021 12:58 PM
To: Lori Pike <lpike@escondido.org>
Subject: FW: Contact Council (select recipient from drop-down list): Opposing Palomar Heights



Bernadette Bjork
Executive Office Coordinator
City Manager's Office
Office: 760-839-4631
www.escondido.org

From: noreply@escondido.org <noreply@escondido.org>
Sent: Tuesday, January 19, 2021 5:48 PM
To: Joe M. Garcia <jgarcia@escondido.org>
Subject: Contact Council (select recipient from drop-down list): Opposing Palomar Heights

Mark Kalpakgian
mark.kalpakgian@gmail.com

Dear Councilmember Garcia,

I implore you to vote no on the Palomar Heights proposal – this plan is a poor and short-sighted decision for Downtown Escondido's most iconic property.

Escondido deserves a true mixed-use development that delights its occupants; that welcomes all us residents of Escondido to walk, sit, shop, eat; that draws our neighbors from throughout San Diego and Riverside Counties to come to experience an afternoon in Downtown Escondido, all while bolstering our local businesses located nearby.

The Palomar Heights proposal falls desperately short of this vision. The lack of meaningful street-front retail space fails to continue the walkable rhythm of Grand Avenue that we all love. The proposed architecture clashes with our downtown's historic buildings. Rather than embracing the hilly topography that is so emblematic of Escondido, the grading plan essentially cuts the site flat and surrounds the property with retaining walls.

A better solution exists.

Escondido has been billed as the City of Choice – and I ask you to choose wisely for my sake, my family’s sake, and the sake of Escondido’s future residents.

Sincerely,
Mark Kalpakgian, District 3

HTTP_USER_AGENT: Mozilla/5.0 (Macintosh; Intel Mac OS X 11_1_0) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.141 Safari/537.36

REMOTE_HOST: 70.166.33.112

REMOTE_ADDR: 70.166.33.112

LOCAL_ADDR: 10.255.2.56

From: [Lori Pike](#)
To: [Adam Finestone](#)
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights
Date: Wednesday, January 20, 2021 1:12:06 PM

From: Bernadette Bjork
Sent: Wednesday, January 20, 2021 12:58 PM
To: Lori Pike <lpike@escondido.org>
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights



Bernadette Bjork
Executive Office Coordinator
City Manager's Office
Office: 760-839-4631
www.escondido.org

From: noreply@escondido.org <noreply@escondido.org>
Sent: Monday, January 18, 2021 12:20 PM
To: Joe M. Garcia <jgarcia@escondido.org>
Subject: Contact Council (select recipient from drop-down list): Palomar Heights

Leslie J McCormick, MD, FAAP
mpm2look@att.net

As a 32 year resident of Escondido and concerned citizen, I urge you to vote against the Palomar Heights development. Escondido deserves better.

We all deserve a true mixed-use development that will serve the residents of the development, other residents of Escondido, as well as draw those that reside in surrounding regions. Curbside retail space needs to increase significantly. The planned architecture needs to be different in order to fit in with other development in downtown Escondido.

Please vote against this development and encourage the solicitation of other proposals for the space.

Respectfully,

Leslie J. McCormick, MD, FAAP

HTTP_USER_AGENT: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.141 Safari/537.36 Edg/87.0.664.75

REMOTE_HOST: 99.33.178.220

REMOTE_ADDR: 99.33.178.220

LOCAL_ADDR: 10.255.2.56

From: [Lori Pike](#)
To: [Adam Finestone](#)
Subject: FW: Contact Council (select recipient from drop-down list): No on Palomar Heights proposal
Date: Wednesday, January 20, 2021 1:12:00 PM

From: Bernadette Bjork
Sent: Wednesday, January 20, 2021 12:57 PM
To: Lori Pike <lpike@escondido.org>
Subject: FW: Contact Council (select recipient from drop-down list): No on Palomar Heights proposal



Bernadette Bjork
Executive Office Coordinator
City Manager's Office
Office: 760-839-4631
www.escondido.org

From: noreply@escondido.org <noreply@escondido.org>
Sent: Sunday, January 17, 2021 1:05 PM
To: Paul McNamara <pmcnamara@escondido.org>
Subject: Contact Council (select recipient from drop-down list): No on Palomar Heights proposal

Laura Jewett
Crjewett@aol.com

No on Palomar Heights proposal

HTTP_USER_AGENT: Mozilla/5.0 (iPhone; CPU iPhone OS 14_2 like Mac OS X) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/14.0.1 Mobile/15E148 Safari/604.1
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REMOTE_ADDR: 75.39.180.92
LOCAL_ADDR: 10.255.2.56

From: [Lori Pike](#)
To: [Adam Finestone](#)
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights Project
Date: Wednesday, January 20, 2021 1:11:51 PM

From: Bernadette Bjork
Sent: Wednesday, January 20, 2021 12:57 PM
To: Lori Pike <lpike@escondido.org>
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights Project



Bernadette Bjork
Executive Office Coordinator
City Manager's Office
Office: 760-839-4631
www.escondido.org

From: noreply@escondido.org <noreply@escondido.org>
Sent: Sunday, January 17, 2021 12:15 PM
To: Michael Morasco <Mmorasco@escondido.org>
Subject: Contact Council (select recipient from drop-down list): Palomar Heights Project

Nick Knudsen
nick.knudsen@gmail.com

Dear Mr. Morasco,

I implore you to vote no on the Palomar Heights proposal – this plan is a poor and short-sighted decision for Downtown Escondido's most iconic property.

Escondido deserves a true mixed use development that delights its occupants; that welcomes all us residents of Escondido to walk, sit, shop, eat; that draws our neighbors from throughout San Diego and Riverside Counties to come experience an afternoon in Downtown Escondido, all while bolstering our local businesses located nearby.

The Palomar Heights proposal falls desperately short of this vision. The lack of meaningful street front retail space fails to continue the walkable rhythm of Grand Avenue that we all love. The proposed architecture clashes with our downtown's historic buildings. Rather than embracing the hilly topography that is so emblematic of Escondido, the grading plan essentially cuts the site flat and surrounds the property with retaining walls.

A better solution exists.

Escondido has been billed as the City of Choice – and I ask you to choose wisely for my sake, my family’s sake, and the sake of Escondido’s future residents.

Sincerely,

Nick Knudsen

HTTP_USER_AGENT: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.141 Safari/537.36

REMOTE_HOST: 76.216.175.47

REMOTE_ADDR: 76.216.175.47

LOCAL_ADDR: 10.255.2.56

From: [Lori Pike](#)
To: [Adam Finestone](#)
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights Project
Date: Wednesday, January 20, 2021 1:11:45 PM

From: Bernadette Bjork
Sent: Wednesday, January 20, 2021 12:56 PM
To: Lori Pike <lpike@escondido.org>
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights Project



Bernadette Bjork
Executive Office Coordinator
City Manager's Office
Office: 760-839-4631
www.escondido.org

From: noreply@escondido.org <noreply@escondido.org>
Sent: Sunday, January 17, 2021 12:12 PM
To: Paul McNamara <pmcnamara@escondido.org>
Subject: Contact Council (select recipient from drop-down list): Palomar Heights Project

mindy knudsen
mrsmindyknudsen@gmail.com

Dear Mayor McNamara,

I implore you to vote no on the Palomar Heights proposal – this plan is a poor and short-sighted decision for Downtown Escondido's most iconic property.

Escondido deserves a true mixed use development that delights its occupants; that welcomes all us residents of Escondido to walk, sit, shop, eat; that draws our neighbors from throughout San Diego and Riverside Counties to come experience an afternoon in Downtown Escondido, all while bolstering our local businesses located nearby.

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A better solution exists.

Escondido has been billed as the City of Choice – and I ask you to choose wisely for my sake, my family’s sake, and the sake of Escondido’s future residents.

Sincerely,
Mindy Knudsen

HTTP_USER_AGENT: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.141 Safari/537.36

REMOTE_HOST: 76.216.175.47

REMOTE_ADDR: 76.216.175.47

LOCAL_ADDR: 10.255.2.56

From: [Lori Pike](#)
To: [Adam Finestone](#)
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights Proposal
Date: Wednesday, January 20, 2021 1:11:39 PM

From: Bernadette Bjork
Sent: Wednesday, January 20, 2021 12:56 PM
To: Lori Pike <lpike@escondido.org>
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights Proposal



Bernadette Bjork
Executive Office Coordinator
City Manager's Office
Office: 760-839-4631
www.escondido.org

From: noreply@escondido.org <noreply@escondido.org>
Sent: Thursday, January 14, 2021 7:12 PM
To: Joe M. Garcia <jgarcia@escondido.org>
Subject: Contact Council (select recipient from drop-down list): Palomar Heights Proposal

Christine Riley
christy.riley@yahoo.com

Dear Mr. Garcia.

I strongly request that you vote NO on the Palomar Heights proposal. It is not what is best for the future of Escondido.

We need a mixed-use venue that will not only provide residential space but will also have places that will draw in Escondido residents as well as people throughout the county. This would mean offering dining, shopping, places to meet, walk, and sit, which would provide an experience that brings people in to spend time in our wonderful city.

Please vote for what is best for our city, our current, and future residents. There are many more beneficial plans that would have a positive impact on everyone instead of a select few.

Thank you for your service to Escondido.

Christy Riley

HTTP_USER_AGENT: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.141 Safari/537.36

REMOTE_HOST: 162.201.151.73

REMOTE_ADDR: 162.201.151.73

LOCAL_ADDR: 10.255.2.56

From: [Lori Pike](#)
To: [Adam Finestone](#)
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights plan
Date: Wednesday, January 20, 2021 1:11:34 PM

From: Bernadette Bjork
Sent: Wednesday, January 20, 2021 12:55 PM
To: Lori Pike <lpike@escondido.org>
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights plan



Bernadette Bjork
Executive Office Coordinator
City Manager's Office
Office: 760-839-4631
www.escondido.org

From: noreply@escondido.org <noreply@escondido.org>
Sent: Thursday, January 14, 2021 9:27 AM
To: Joe M. Garcia <jgarcia@escondido.org>
Subject: Contact Council (select recipient from drop-down list): Palomar Heights plan

Margaret McManus
mtmcmanus2@gmail.com

Dear Council member Garcia

I am writing as your constituent in district 3 to ask you to vote NO on the Palomar Heights proposal. This plan is a poor choice for Escondido's most iconic property.

The plan is short sighted and does not meet the mixed used development concept that is what is best for Downtown Escondido. A shining example of mixed use incorporating an iconic design is the new Grand Escondido. Escondido deserves a true mixed use development that welcomes all residents to walk, sit, shop and eat. The current transformation that is taking place in downtown Escondido despite COVID draws many locals as well as people from across San Diego and Riverside county.

The Palomar Heights project proposal is poorly envisioned with no walkable space to connect downtown Escondido to such a beautiful hilltop location. The architecture clashes with

downtown's historic buildings. It does not capture the hilly topography that is characteristic of Escondido. I live on 7th Ave and that location is one of the best spots to witness some of the most beautiful sunsets in San Diego County.

Escondido could create a masterpiece with a new set of eyes that focus on a true mixed development that everyone in Escondido and beyond can enjoy for decades to come.

Thank you for your consideration,

Margaret McManus

HTTP_USER_AGENT: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_6) AppleWebKit/605.1.15
(KHTML, like Gecko) Version/14.0.2 Safari/605.1.15
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From: [Lori Pike](#)
To: [Adam Finestone](#)
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights Proposal
Date: Wednesday, January 20, 2021 1:11:27 PM

From: Bernadette Bjork
Sent: Wednesday, January 20, 2021 12:55 PM
To: Lori Pike <lpike@escondido.org>
Subject: FW: Contact Council (select recipient from drop-down list): Palomar Heights Proposal



Bernadette Bjork
Executive Office Coordinator
City Manager's Office
Office: 760-839-4631
www.escondido.org

From: noreply@escondido.org <noreply@escondido.org>
Sent: Thursday, January 14, 2021 7:33 AM
To: Paul McNamara <pmcnamara@escondido.org>
Subject: Contact Council (select recipient from drop-down list): Palomar Heights Proposal

Tena Marshall
bret.tena.marshall@gmail.com

Dear Mayor Mac,

I implore you to vote no on the Palomar Heights proposal – this plan is a poor and short-sighted decision for Downtown Escondido's most iconic property.

Escondido deserves a true mixed use development that delights its occupants; that welcomes all us residents of Escondido to walk, sit, shop, eat; that draws our neighbors from throughout San Diego and Riverside Counties to come experience an afternoon in Downtown Escondido, all while bolstering our local businesses located nearby.

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A better solution exists.

Escondido has been billed as the City of Choice – and I ask you to choose wisely for my sake, my family’s sake, and the sake of Escondido’s future residents.

We live in Historic Escondido and love this area. This new project is just a few blocks from us. I love that we will be getting more living spaces, but we really need to incorporate mixed use (more than just two spaces!) if we want our Grand community to grow to it’s potential.

Thank you for your consideration!

Sincerely,
Tena Marshall

HTTP_USER_AGENT: Mozilla/5.0 (iPhone; CPU iPhone OS 14_2 like Mac OS X) AppleWebKit/605.1.15
(KHTML, like Gecko) Version/14.0.1 Mobile/15E148 Safari/604.1
REMOTE_HOST: 107.77.230.17
REMOTE_ADDR: 107.77.230.17
LOCAL_ADDR: 10.255.2.56

August 3, 2020

VIA E-MAIL AND
FIRST CLASS MAIL

Jeffrey R. Epps,
City Manager
CITY OF ESCONDIDO
201 North Broadway
Escondido, CA 92925

Mike Strong,
Director of Community Development
CITY OF ESCONDIDO
201 North Broadway
Escondido, CA 92925

Re: **Palomar Heights: Scheduling of Planning Commission Hearing and**
Objections to unlawful demand for annexation to CFD 2020-1

Dear City Manager Epps and Director Strong:

On behalf of our clients, The Palomar Heights Project, LLC (and “Integral Communities” or “Integral”), we urgently reiterate their requests that the City of Escondido immediately resume the timely processing of the completed development applications for the Palomar Heights Project, and schedule those applications for Planning Commission hearing no later than August 25, 2020 – and that the City abandon the City Staff’s unlawful new demand that our clients “agree” to annex this property to newly-established Community Facilities District No. 2020-1 (the “CFD”) as a condition of any further City action on the development applications. The City’s untimely attempt to impose a new condition requiring that the Project be subjected to discriminatory and unlawful CFD burdens threatens to unjustifiably inflict further costs and delays that substantially impede, if not imperil, Integral’s ability to provide these critically-needed new housing resources.

We just received Director Strong’s letter of July 30, 2020, and we also take this opportunity to respond to some of the erroneous assertions in that letter. While Director Strong’s efforts to suggest some new “options for moving the Project forward” are appreciated, we must emphatically point out that the only lawful “option” for moving this Project forward at this point is for the City to immediately and expeditiously resume processing the Project applications -- without any new conditions or delays. We urge the City to immediately withdraw the CFD demand, to abandon the notion of requiring new “revisions” to the EIR on the pretext that there has been any “change” in the Project, and to schedule the Palomar Heights applications for Planning Commission hearing no later than August 25, 2020 – as we had been led to expect.

As you know, Integral has been working constructively for years with City of Escondido to provide the City with all necessary information requested, and has agreed to comply with all reasonable and lawful conditions, in order to facilitate the timely processing and consideration of its development applications. The City properly acknowledged these applications to be

Jeffrey Epps,
August 3, 2020
Page 2

“complete” at least five (5) months ago (by letter dated February 28, 2020), and staff has previously assured Integral that the applications are ready and able to be considered by the Planning Commission. We had been led to anticipate that the applications would be scheduled for a Planning Commission hearing no later than August 25, 2020.

Our client was just informed last week, however, that City staff is refusing to move these applications forward for Planning Commission review unless our client “agrees” to become subject to the City’s newly-established Community Facilities District No. 2020-01 and to subject its property to the “special taxes” imposed under that CFD. Those demands by City staff for CFD annexation are confirmed in the letter dated July 30, 2020, from Director Strong. That letter, however, does not accurately state the facts regarding the interplay between the Palomar Heights entitlements and the City’s hasty and non-compliant efforts to establish the new CFD, nor does it address the insurmountable legal obstacles precluding the staff’s new attempts to impose CFD annexation demands against this project. Nor does that letter or any other recent communication from City staff cite any Council-adopted policy explicitly authorizing staff to impose such demands as mandatory conditions of processing or approving new residential developments. Such demands are manifestly unlawful, indeed unconstitutional. We urge the City to reconsider.

Staff’s insistence on imposition of this CFD “requirement” on the project, arbitrarily imposing burdens on new residents far out of proportion to any demonstrated impacts on public facilities or services, is the type of misuse of governmental land use authority that the United States Supreme Court has repeatedly condemned and invalidated. (See, e.g., *Koontz v. St. John’s River Water Management Dist.* (2013) 133 S.Ct. 2586; *Dolan v. City of Tigard* (1994) 512 U.S. 364, 387 [city’s imposition of exactions “through gimmickry” and without showing of nexus or rough proportionality to impacts converted land use regulation into “an out-and-out plan of extortion.”].)

A. THE CITY CANNOT LAWFULLY COMPEL THE PALOMAR HEIGHTS PROJECT TO “AGREE” TO ANNEXATION INTO NEW CFD 2020-01.

Integral has previously communicated some of its objections regarding this new demand for annexation into CFD 2020-01 to City staff, along with a detailed financial analysis demonstrating inconsistencies and flaws in the CFD’s special tax calculations. The City’s threatened actions are inconsistent with the Mello-Roos Community Facilities District Act of 1982 (the “Act”) as well as other state legislation governing land use and housing. Integral has also pointed out the discriminatory and excessive financial burdens that the CFD would impose on the Palomar Heights property and its prospective new residents, in violation of state and federal housing laws and contrary to fundamental principles of the City’s own General Plan.

We reiterate and summarize, below, some of the many legal problems with the City’s attempt to coerce the annexation of the Palomar Heights project to CFD No. 2020-1:

Jeffrey Epps,
August 3, 2020
Page 3

1. **The City cannot require property owners to “vote” to annex their property into the new Mello Roos CFD or for new “special taxes” as a condition of entitlement approvals.**

The City apparently now intends to “require all new residential development to annex into a maintenance and services CFD” as a condition of processing applications and approvals of “entitlements.” As previously noted, however, City staff has not cited any City Council-approved ordinance or resolution authorizing staff to impose such new requirements or demands. If the City intends to apply or enforce such a new policy to require applicants for new development “entitlements” to vote to annex their property into the new CFD and to pay its “special taxes” as a condition of approval, the City would be unlawfully abridging the constitutional and statutory rights of property owners to vote freely on such issues. *See generally*, California Elections Code § 18540 [it is illegal, and may be prosecuted as a felony, for anyone to induce or coerce a vote for or against any particular person or measure].

Where, as in this case, the state has established an electoral process involving a “vote,” the constitutional principles governing elections apply. (See, e.g., *City of San Diego v. Shapiro* (2014) 228 Cal.App.4th 756 [invalidating city’s election approving a “special tax” on certain land owners under the Mello-Roos Act for failure to comply with constitutional restrictions of Prop 13 and Prop 218].) The right to vote “may be the most fundamental of all rights” (*Bd. of Supervisors v. LAFCO of Sacramento County* (1992) 3 Cal.4th 903, 913.) Unjustified or discriminatory interference with the “fundamental right” to vote freely may also be viewed as a violation of the FEDERAL CIVIL RIGHTS ACT (42 U.S.C. §§ 1980 et seq.). The recent attempts by City staff to apply that unlawful new CFD requirement against Integral -- and use it as a pretext for further delaying the processing of the Palomar Heights project -- are particularly egregious violations of this fundamental right.

Indeed, the Home Builders Association of Northern California (HBANC) successfully challenged a very similar “mandatory CFD” scheme in Santa Rosa in 2011-12 on these grounds. The City Council there adopted its ordinance expressly providing that all residential property for which any discretionary permit or approval is sought “is required to be annexed into the CFD and pay its annual Special Tax.” The Court granted summary judgment in favor of HBANC, invalidated the requirement of voting into a CFD as a condition of development approval, and awarded \$243,000 as attorney fees to HBANC against the City. (*BIA of the Bay Area/HBANC v. City of Santa Rosa* (Sonoma County Sup. Ct. No. SCV 244441.) The City did not appeal the judgment invalidating its CFD requirement, and the award of more than \$200,000 in attorneys’ fees against the City was affirmed on appeal (Appellate No. A132839).

If the City staff persists in refusing to process Integral’s applications because of Integral’s rejection of the unlawful demands to acquiesce in the unjustified demand for CFD participation, such refusal would be regarded in law as if the City has denied the application. Such wrongful action by the City would be subject to correction in court by immediate injunctive and/or

Jeffrey Epps,
August 3, 2020
Page 4

mandamus relief. (See, e.g., *Koontz v. St. John's River Water Management Dist.* (2013) 133 S.Ct. 2586 [government's refusal to grant permit unless applicant agreed to pay unjustified 'in-lieu fees' was equivalent to imposition of unlawful demand subject to judicial review and correction].)

2. The City cannot impose unconstitutional conditions even on “discretionary” actions or “entitlement” approvals.

A governmental requirement that an applicant agree to vote in a particular way, or agree to subject the applicant's property to a special tax, or give up any other constitutionally-protected right, as a condition of approval is an unconstitutional condition. (See, e.g., *Parrish v. Civil Service Commission* (1967) 66 Cal.2d 260, 271.)

A government may not condition the approval of a permit or benefit, such as land use entitlements, on an applicant's agreement to surrender a constitutional right (e.g., the right to vote freely; the right to just compensation for taking of property). The doctrine prohibiting such “unconstitutional conditions” applies even where the applicant seeks a discretionary approval. (*Koontz v. St. John's River Water Management Dist.* (2013) 133 S.Ct. 2586 [denial of permit because applicant refused to agree to unconstitutional monetary exactions demanded by district]; *Stamper v. City of Perris* (2016) 1 Cal.5th 576, 592-96 [courts carefully scrutinize governmental demands and conditions of development approval in recognition of landowners' “vulnerability to the type of coercion that the unconstitutional conditions doctrine prohibits.”]; *San Diego County Water Authority v. Metropolitan Water Dist. of So. Calif.* (2017) 12 Cal.App.5th 1124, 1158-68 [invalidating provision in water supply “agreement” that required plaintiff to “waive” its constitutional right to petition re grievances or to seek judicial relief from the “agreement.”].)

3. The project applications were complete before the new CFD was established and there is no legal basis for attempting to impose a new CFD requirement on this project.

The unlawful City policy, requiring “new” residential developments to annex into a CFD as a condition of entitlement processing, was not in existence or in legal effect at the time the Project applications were submitted in late 2018 and deemed “complete” in February 2020. The City appears to acknowledge that it cannot legally attempt to apply that policy retroactively. The City's website states that projects which “received entitlements” at least before May 13, 2020, are not subject to the purported requirement of CFD annexation. It appears that the City Council's first reading and approval for new Ordinance No. 2020-10 and Resolution No. 2020-44 occurred on May 13, 2020, and the second reading of the Ordinance did not occur till May 20, 2020. By its own terms, Ordinance No. 2020-10 did not “take effect” until “thirty (30) days after its final passage.” Therefore, any projects – including this Project – which had received entitlements before June 19, 2020 (rather than May 13), could not be subject to the new CFD policy, even if that policy were lawful.

Jeffrey Epps,
August 3, 2020
Page 5

The development applications for the Palomar Heights Project were submitted in 2018 -- long before any City efforts toward creation of a “services CFD.” The City confirmed in writing that those applications were recognized as “complete” no later than February 28, 2020. Accordingly, the Project may be subject only to the ordinances, policies, and standards that were already in effect as of February 28, 2020. (Gov. Code § 66474.2.) Those ordinances and policies did not include any mandatory requirement of annexation into any CFD – and the City Council had not even confirmed its “intention” to form a new CFD 2020-1 at that time. The Project EIR was also completed, and the initial public review period expired, before the CFD was created. The City Council did not adopt the initial “Resolution of Intention” to form a new CFD until April 8, 2020 (Res. No. 2020-24). The City is thus absolutely precluded by law from attempting to require annexation or other action under its new, subsequently-adopted, CFD policies. (*Kaufman & Broad Central Valley, Inc. v. City of Modesto* (1994) 25 Cal.App.4th 1577; *Bright Development Co. v. City of Tracy* (1993) 20 Cal.App.4th 783.)

4. Imposing a CFD annexation requirement on this project would violate the Housing Accountability Act.

As part of California’s enhanced efforts to facilitate the construction of much-needed new housing throughout the state, the California Housing Accountability Act (HAA) now severely limits the authority of a city or other local governments to deny or impede a residential development project that complies with applicable, objective planning and zoning standards – such as the Palomar Heights project. A city may only deny such a project if the City is able to make specific findings supported by a preponderance of the evidence that: (1) the housing development project would have a specific, adverse impact upon the public health or safety and (2) there is no feasible method to satisfactorily mitigate or avoid the adverse impact. (Gov. Code § 65589.5(j).)

The Legislature has defined a “specific adverse impact” to mean a “significant, quantifiable, direct, and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.” (Gov. Code § 65589.5(j)(1)(A).) As explained previously, the City confirmed that the Project application was “complete” well before the City created the new CFD. See also, Gov. Code § 65589.5(o) further provides that the City may apply only such charges or fees as may have been in effect at the time the application was submitted.¹ Because the CFD would result in a new set of charges or exactions that were not in effect when the application was submitted, the project cannot be subjected to the new demands that Palomar Heights agree to be annexed to the CFD and subjected to its new special taxes. Integral’s decision not to become subject to the newly created CFD is not valid grounds for the City refusing to process or approve the Project applications.

¹ The HAA includes a limited exception, not applicable here, for increases to fees, charges, or other monetary exactions, resulting from an automatic annual adjustment based on an independently published cost index. (Gov. Code § 65589.5(o)(2)(A).)

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The Palomar Heights Project complies with the applicable, objective planning and zoning standards. There is no evidence, let alone a preponderance of the evidence, that the project would result in a specific adverse impact upon the public health or safety, or that such impacts (if any) could not be mitigated or avoided through other feasible means. Accordingly, if the City were to persist in denying a hearing or denying approval of the project because Integral refuses to yield to the unjustified demand for CFD annexation, such actions would be deemed to violate the HAA. (Gov. Code § 65589.5(j).)

Significantly, the Legislature specifically provided that successful enforcement of claims under the HAA, such as either or both of these claims, would entitle the applicant to an award of attorneys' fees against a non-compliant city. (Gov. Code § 65589.5(k).)

5. Imposition of the special tax on multi-family housing in an opportunity site is contrary to the City's Housing Element.

As recognized by the City's General Plan, the Housing Element must demonstrate the City's ability to accommodate the RHNA numbers. (City's Housing Element, p. IV-107.) To meet this requirement, the City's Housing Element references the Palomar Medical Center site, asserting that the contemplated improvements could add up to 300 housing units. (City's Housing Element, p. IV-111.) By imposing a special tax of the magnitude proposed by the City, the City would essentially be erecting a significant financial barrier to achieving its own clearly-identified housing objective, thus undermining the City's attempts to comply with its RHNA obligations.

6. The special tax on the project creates an unjustified disparate impact on protected populations, including low-income, minority, and the elderly population.

The proposed special tax creates a greater financial burden on new multi-family housing, which is traditionally utilized by lower-income individuals as well as minority populations, than on other types of new residential development or existing multi-family housing in the City. Furthermore, the proposed special taxes would have the greatest financial impact as applied to housing intended to be provided for seniors. Such a disparate, unreasonably-discriminatory, impact could result in a finding that the City is in violation of either the State or Federal fair housing laws, as would be inconsistent with the City's Housing Element.

7. The City cannot show that CFD 2020-1 complies with the Mello-Roos Act.

Under the Mello-Roos CFD Act, "[a] community facilities district tax approved by vote of the landowners of the district may only finance the services authorized in this section to the extent that they are in addition to those provided in the territory of the district before the district was

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created. The additional services shall not supplant services already available within that territory when the district was created.” (See Gov. Code § 53313.) Likewise, a CFD cannot impose fees on the proposed property, unless the district can show that the fees are necessary to pay for the “additional services” as authorized by Government Code § 53313. (Gov. Code § 53330.5 [“In addition, the special tax may be levied only so long as it is needed to pay the principal and interest on debt incurred in order to construct facilities under authority of this chapter, or so long as it is needed to pay the costs and incidental expenses of services or of the construction of facilities authorized by this chapter.”].) The “chapter” does not authorize the use of the special tax for general city services.

In particular, while Government Code section 53313 provides that a CFD “may be established ... to finance ... the following types of services within an area ...,” it also makes it clear that such services are limited to those to be provided in the area paying the special tax. (*Friends of the Library of Monterey Park v. City of Monterey Park* (1989) 211 Cal.App.3d 358, 376.)

The new CFD is not supported by sufficient evidence or analysis demonstrating how the proposed “Services” are “additional services” that are authorized within the limitations of the Act; much less by substantial evidence showing that these taxes are justified to fund additional services required as a result of the new project. Integral has provided staff with a detailed analysis by DPF&G, which critiques the KMA Fiscal Impact Analysis and demonstrates several critical flaws in its assumptions and calculations. For example, DPF&G points out that the FIA based its calculation of “impacts” on police services on the unfounded assumption that its proposed new CFD special taxes were “necessary” in order to maintain a level of service of 1.28 sworn police officers per 1,000 residents. However, the FIA itself confirms that the City’s existing level of service is only 1.04 sworn officers per 1,000 residents. Thus, contrary to the City’s declared CFD policy, the new special taxes would actually be used to substantially upgrade the existing level of services, rather than to “maintain” them.

Also, the FIA’s “one-size-fits-all” approach failed to take into account the fact that the Palomar Heights project involves conversion of a previous hospital property to multi-family residential with a commercial element. The ‘fiscal impacts’ of this project are thus far different than, and substantially less than, impacts of residential development on previously-undeveloped land, such as the Lennar project which was in a suburban area, and previously consisted entirely of a golf course.

8. The CFD cannot be used to backfill the City’s structural budgetary deficit.

Here, the City appears to be attempting to address an existing structural deficit by forcing new development to essentially backfill the budgetary gap, rather than to cover the cost of any true “additional services” that are necessitated by new development in general, much less this particular

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new development. Such a use is prohibited under the Act. (Gov. Code § 53340(d) [“The proceeds of any special tax may only be used to pay, in whole or part, the cost of providing public facilities, services, and incidental expenses pursuant to this chapter.”]; Gov. Code § 53343 [“Any special taxes collected pursuant to this chapter may only be used for facilities and services authorized by this chapter.”].) In light of these legal restrictions, even if the developer were to agree to be included in a CFD, the City’s annexation of the property could be considered an *ultra vires* act if the CFD taxes are not limited to, and applied only to, covering the authorized costs of the additional services.

9. The new “special taxes” will chill the development of needed higher density housing options.

As explained above, the proposed special tax is considerably greater for multi-family development than for single-family detached development. In imposing these special taxes, the City is impairing the ability of Integral and other housing providers to develop much needed high-density housing to address the State’s housing crisis, and vitiates the stated objectives of incentivizing this very type of development.

10. The proposed rate of “special taxes” is excessive and unreasonable.

Under Government Code § 53339.3(d), when annexing property into an existing CFD, a “lower tax may be levied within the territory proposed to be annexed or to be annexed in the future to the extent that the actual cost of providing the services in that territory is higher or lower than the cost of providing those services in the existing district.” Here, the property at issue was already developed, and thus already required many, if not all, of the services that the CFD purports to cover. Conversely, the Lennar project involved a residential project to be developed on a former golf course, which clearly did not require the same level of service.

Accordingly, if Integral were to ultimately agree to be subject to the CFD, the special tax to be imposed on the Palomar Heights property would have to be significantly lower. (See Gov. Code § 53340(a) [“After creation of a community facilities district that includes territory proposed for annexation in the future by unanimous approval as described in subdivision (b) of Section 53339.3, the legislative body may, by ordinance, provide for the levy of special taxes on parcels that will be annexed to the community facilities district at the rate or rates to be approved unanimously by the owner or owners of each parcel or parcels to be annexed to the community facilities district and for apportionment and collection of the special taxes in the manner specified in the resolution of formation.”].)

As previously noted, Integral’s consultants, DPF&G, have reviewed KMA’s report and the proposed special tax levels, and have found certain inconsistencies, as well as a variety of reasons as to why the hospital site property should not be subject to the same analysis and conclusions as

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was applied to the Lennar project. Those initial comments and analysis by DPF&G were previously provided to City staff but will gladly be provided again if requested.

B. RESPONSES TO ERRORS IN LETTER OF JULY 30, 2020 FROM DIRECTOR STRONG.

We have just been provided a copy of the letter from Director Strong to Integral, dated July 30, 2020, purporting to provide some “options on how best to move forward” with “reasonable expediency” in the City’s processing and consideration of the Palomar Heights applications. As should be apparent from the preceding sections of this letter, we believe the “best” way – and the only lawful way – for the City to move forward with Integral’s applications is to immediately set them for hearing with the Planning Commission no later than August 25, 2020, without any insistence upon Integral “agreeing” to annex into the new CFD.

1. The City did NOT put Integral “on notice” of any intention to require that the Palomar Heights project “agree” to annex to a new CFD as a condition of approval.

The recent letter from Director Strong summarizes some of the background leading up to the Council’s action on May 13, 2020, establishing new CFD 2020-1 as though to imply that the City was thereby somehow putting Integral on notice that the City would be creating these unlawful new policies and demands for annexation into the CFD as a condition of the City’s continued processing of the Palomar Heights applications. The facts, however, do not support any such implication that the City actually gave lawful notice of these new policies (if they are in fact Council-adopted policies).

None of the actions mentioned in Director Strong’s letter include any express notice to Integral or to the public generally indicating that the City might at some unspecified point in the future demand that “all new residential development in the City” must vote to annex into a vaguely-described prospective CFD as an absolute precondition to the City’s continued consideration of new applications for development “entitlements.” Much less did any of those actions give notice that the City might intend to try to apply these new CFD demands against the Palomar Heights project, which was already far along in the entitlements process. Resolution No. 2020-2 (January 15, 2020) merely directed City staff to “prepare documents necessary *to consider* the formation of a Citywide CFD to offset ongoing municipal costs of serving new residential development.” Nothing gave any notice as to when or how any such possible new CFD might be applied (“voluntary” or otherwise), or to which properties it might apply, or what type of “entitlements” might trigger its application, etc.

Similarly, nothing in the Council’s actions of April 8, 2020, or May 13, 2020, gave any such “notice” that the newly-created CFDs (one for Lennar’s “Villages” project and the other

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vaguely-described “Citywide” CFD) were intended to be applicable to Palomar Heights, much less intended to be mandatory preconditions to the continued processing of the Integral project. To the contrary, the terse discussions of the proposed CFD in the staff reports indicated that new development projects would be “allowed” to voluntarily participate in the CFD – not “compelled” to do so.

The City gave no “Notice of Special Tax” to Integral during the process of creating CFD 2020-1. To the contrary, the Staff Report for the January 15, 2020, Council meeting stated that “a special tax would not be assessed until after the City Council conditions a development project to annex to the Services CFD (upon development) and the property owner votes affirmatively to annex.” A “vote” implies an “election,” i.e., free choice.

Despite the extensive and detailed discussions over the years between City staff and Integral regarding the Project, the EIR, and possible conditions of approval, there was no mention of any prospective requirement mandating annexation to the new CFD. As discussed below, any mention of the new CFD and its proposed new special taxes was conspicuously absent from the Project EIR and the otherwise comprehensive communications from the City staff regarding proposed conditions of approval for the project.

2. Nothing in the Project EIR misled the City to assume that Palomar Heights would voluntarily agree to annex to the not-yet-existing CFD or pay its “special taxes.”

The assertion in the letter from Director Strong that the Project EIR somehow misled City staff to assume that the Project would be annexing into the CFD is similarly unsupported by the facts or applicable law. The Project EIR was completed, published and circulated for public comment on March 20, 2020. At that time, the City had not provided the public with any details about a possible new services CFD, and the City Council had not taken any action to legally form a new “Citywide services CFD.” It would have therefore required incredible prophetic powers for the EIR preparers to have anticipated such a CFD and include CFD special taxes as any kind of possible mitigation measure. As Director Strong candidly admits, “there is no direct reference to the Services CFD in the EIR currently.” There is no “indirect” reference either.

The City’s assertions are not bolstered by the occasional references to payment of City “fees” in the EIR. Such references to “development fees” are quite distinct from any not-yet-established CFD “special taxes.” It is well established in California law that “fees” are not the same as “taxes,” special or otherwise. (E.g., Gov. Code § 66000(b) [development “fees” exclude “special taxes”]; *Silicon Valley Taxpayers’ Ass’n v. Santa Clara County etc.* (2008) 44 Cal.4th 431.) One critical distinction is that “fees” are not valid unless the City imposing the fees produces evidence demonstrating a reasonable “nexus” between the fee or exaction imposed and the project’s impacts, and rough proportionality between the amounts charged and the actual

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“impacts” on public facilities or services caused by the development. (Gov. Code §§ 66001, 66006.)

In that regard, the letter further errs by asserting that “the Services CFD was established through a *nexus study*...” The City has never provided any such “nexus study” to try to justify the new special taxes, and there is no way that the KMA “Fiscal Impact Analysis” even pretends to serve as a legitimate “nexus study.” Nor did the City even attempt to comply with the statutory requirements of the Mitigation Fee Act necessary to establish lawful “development fees.”

In sum, there is no evidence anywhere in the City’s EIR or in the processing of the project applications that would have ever justified the new claim that staff “reasonably understood” that this Project would agree to annex or otherwise be subjected to the newly-created CFD.

3. The City CANNOT now use the failure to include provisions for payment of special taxes as a pretext to require “revisions” to the Project EIR

Apparently conceding that there is absolutely no legal basis for the City staff to now refuse to continue timely processing of the Palomar Heights project, Director Strong’s letter improperly resorts to raising thinly-disguised threats to further delay under the pretext of making “revisions to the EIR” to analyze “potential effects resulting from this change (*sic*) to the Project.”

There is no “change to the Project” since neither the Project nor the EIR ever contemplated or required CFD annexation or payment of “special taxes” in the first place. The CFD’s special taxes were never expressed as mitigation in the EIR – and they never could have been lawfully contemplated as feasible mitigation measures under CEQA. Payment of “special taxes” – as distinct from lawfully-established impact fees -- are not appropriate or legitimate “mitigation” under CEQA. CEQA expressly states that it creates no new authority for lead agencies to impose mitigation requirements. (CEQA Guidelines, § 15040(b).) And CEQA specifies that any mitigation measures must comply with applicable constitutional requirements including the nexus and rough proportionality requirements of *Nollan* and *Dolan*. (CEQA Guidelines, §15041(a).)

The threats of further delays raised in Director Strong’s letter are wholly unjustified, either by the facts or by any provision of CEQA. The infliction of any further delays to allow the City to either coerce involuntary CFD annexation or to fabricate new measures to “mitigate” for non-existent “change” in the Project would be clearly recognized as an abuse of the CEQA process. (Cf., *Sunset Drive Corp. v. City of Redlands* (1999) 73 Cal.App.4th 215.)

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CONCLUSION

We respectfully but firmly reiterate Integral's requests that the City immediately drop its demands that Integral "agree" to annex to the new CFD as a condition of approval for the Palomar Heights Project. We further urge the City to immediately resume timely and expeditious processing of the Palomar Heights Project applications for Planning Commission review, and set them for hearing by the Planning Commission on the August 25, 2020 agenda – without any conditions relating to CFD annexation.

We look forward to the City's urgent review and serious consideration of the points set forth above, and look forward to your reply as soon as possible. Thank you.

RUTAN & TUCKER, LLP



David P. Lanferman

DPL

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September 23, 2020

Honorable Mayor McNamara
and Honorable Members of the City Council
CITY OF ESCONDIDO
201 North Broadway
Escondido CA 92025

Re: **City Council Meeting - September 23, 2020**
Agenda Item No. 14:

*“Citywide Services CFD 2020-1;
Annexation of Projects Under Entitlement Review” –
and
Options for Exempting “Pipeline Projects”*

Comments and Responses

Dear Honorable Mayor and Members of the City Council:

On behalf of Integral Communities and The Palomar Heights Project Owner, LLC, we appreciate this opportunity to comment on the City’s recent use, and possible misuse, of the Mello-Roos Community Facilities Act in order to levy special taxes on new residential development to fund City services.

According to the Staff Report, this Agenda Item includes two (2) distinct Staff proposals, one of which we oppose, and the other we would conditionally support:

First – we respectfully object to Staff’s request that the Council now “direct Staff to continue requiring projects” to annex into the newly-created Community Facilities District 2020-1 (“CFD”) or to enter into some other City-approved “funding mechanism” to pay for ongoing public services that are enjoyed by entire community. We note that there is no proposed form of Resolution or Ordinance or other Council action included in the Staff Report for this Agenda Item # 14, so there remains some uncertainty as to what “direction” in particular is being requested. We incorporate our objections to Agenda Item # 13 and proposed Ordinance No. 2020-24 here.

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Second – in the event that it becomes the City Council’s official policy to mandate annexation to the CFD (or alternative unspecified funding mechanism) policy – despite the many problems such a policy would raise – we would support the second part of the Staff Report – its “Option 4” proposal – exempting all projects under review at the time of such new Council action.

Staff has acknowledged that several development projects, including Palomar Heights, were already in various stages of City review and entitlement processing before the City Council created CFD 2020-1 on May 13, 2020. This second part of the Staff Report proposes three additional options for “phasing in” the proposed new policy mandating CFD annexation or for exempting projects at other stages in the entitlement process – if adopted by Council -- all of which are better than Staff’s current position.

IF the Council were to decide to now authorize and persist in the new “mandatory CFD” policy – despite the many problems it would raise – we would support Staff’s “Option 4” proposal – exempting all projects under review at the time of such new Council action. Such an approach would provide for a more reasonable phasing in of the very costly new requirements and to reduce the unforeseen financial impacts and harm to projects already under consideration by the City. Such an exemption is compelled by concerns for basic “fairness” – as well as by fundamental requirements of “Due Process of Law.”

Such an exemption for “pipeline” projects would more closely conform to State law.

As we have previously pointed out, at least in the case of projects which include applications for subdivision map approval – such as Palomar Heights -- State law prohibits a city from basing its decision on a tentative map (whether a ‘vesting’ map or otherwise) on newly enacted policies or requirements that were not “in effect” at the time the map application was deemed complete. (Government Code Section 66474.2.) Thus, any new mandatory CFD requirements could not lawfully be applied to subdivision projects that have complete applications already in the entitlement review “pipeline.” Failure to exempt Palomar Heights would thus put the City in violation of the State Subdivision Map Act.

Similarly, under the State Housing Accountability Act (“HAA”) as recently amended by the Legislature, residential development projects that are covered by the HAA and which have submitted a preliminary application conforming to the HAA may not be denied or impeded by newly-enacted ordinances, policies, or requirements – such as the proposed new “mandatory CFD or funding mechanism” proposals. (Government Code § 65589.5(j)(1)(A).)

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We appreciate your consideration of our comments and suggestions.

Very truly yours,

RUTAN & TUCKER, LLP



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Kimberley Foy, Gatzke Dillon & Ballance LLP

November 16, 2020

Honorable Mayor McNamara
and Honorable Members of the City Council
CITY OF ESCONDIDO
201 North Broadway
Escondido CA 92025

Re: **Objections and Request for Reconsideration/Repeal of Ordinance No. 2020-24:**

Invalid and Discriminatory New Requirement for New Housing Projects to Annex to CFD 2020-1 and Unlawful Exactions for Ongoing Municipal Services.

Dear Honorable Mayor and Members of the City Council:

On behalf of the Building Industry Association of San Diego County (“BIA”), its members, and the widespread general public interest in promoting more affordable and available housing throughout California, we respectfully but urgently **request that the City Council take immediate action to reconsider and repeal newly-enacted Ordinance 2020-24.** That Ordinance – hastily and improperly rushed before the Council on September 23, 2020, based on false representations – would now require that all new residential development projects “vote” to impose discriminatory special taxes on their new residents or otherwise requires unspecified, arbitrary, and unjustified “funding mechanisms” from such new developments.

BIA strongly urges the City Council to act quickly to repeal this Ordinance not only because its requirements are unlawful, and violate federal and state constitutional constraints on taxes and development exactions, but also in order to prevent the counter-productive and destructive effects such unjustified burdens will otherwise inflict on the community’s ability to provide housing and on the overall economic vitality of Escondido. Many property owners, builders and developers, including many BIA members, will likely suffer severe impacts, losses, and massive financial damages – for which the City may be found liable -- unless these issues are resolved and corrected immediately

BIA trusts that the City Staff and Council will give urgent and effective consideration to these objections and to our requests for timely corrective action – **no later than December 11, 2020** – so that it will not become necessary for BIA to bring litigation to obtain relief through judicial action. BIA’s representatives are ready and anxious to discuss these issues and possible solutions with the City as soon as possible.

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When the City Council in late 2019 initially authorized City Staff to investigate the possible establishment of a new “Mello-Roos Community Facilities District (“CFD”), at the request of one specific development project, that proposed action was presented as a voluntary accommodation to the developer’s proposal for funding project-specific impacts on public services and facilities, consistent with the lawful purposes and scope of the Mello-Roos Act. Although City Staff provided BIA an informal head’s up meeting in January focused on the proposed facilities CFD for The Villages project, there was little discussion of a possible optional services CFD, there was no disclosure of any City intentions to make annexation into such a new “Services CFD” mandatory precondition to the approval of all new residential development projects, or the magnitude of the possible special taxes. We are not aware of any written notice or documentation in the public record -- much less any Council action -- during the following months that provided any notice to BIA or to the public generally of such intentions.

The City’s subsequent enactment of Ordinance 2020-24 – transforming the initial, project-specific, voluntary CFD financing proposal into a new mandatory “public services funding requirement” on all new residential developments – is not only contrary to many constitutional and statutory prohibitions, but also contrary to statewide and regional policies discouraging new “governmental constraints” on housing production. Ordinance 2020-24 is inconsistent with the Mello-Roos Community Facilities District Act of 1982 (the “Act”) as well as other state legislation governing land use and housing.

Some of those legal and policy problems are summarized below, in support of our appeal for reconsideration of Ordinance 2020-24:

1. The City cannot lawfully compel annexation to a Mello-Roos CFD nor compel payment of unlawful exactions or fees as conditions of development approval.

The exactions imposed by new Ordinance 2020-24 are precisely the type of “extortionate” misuse of governmental land use authority that courts, including the United States Supreme Court, have repeatedly condemned and invalidated. (See, e.g., *Koontz v. St. John’s River Water Management Dist.* (2013) 133 S.Ct. 2586; *Dolan v. City of Tigard* (1994) 512 U.S. 364, 387 [city’s imposition of exactions “through gimmickry” and without showing of nexus or rough proportionality to impacts converted land use regulation into “an out-and-out plan of extortion.”]; *Nollan v. California Coastal Comm.* (1987) 107 S.Ct. 3141.)

2. Property owners cannot be compelled to “vote” to annex into the new Mello-Roos CFD or to become subject to new “special taxes” as a development condition.

New Ordinance 2020-24 ostensibly requires all new applicants for new development “entitlements” to vote to annex their property into the new CFD and to pay its “special taxes” as a condition of approval. It thus unlawfully abridges the constitutional and statutory rights of

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property owners to “vote freely” on such issues – and may raise issues of criminal exposure for the City. *See generally*, California Elections Code § 18540 [it is illegal, and may be prosecuted as a felony, for anyone to induce or coerce a vote for or against any particular person or measure].

Where, as in the case of the Mello-Roos Act, the state has established an electoral process involving a “vote,” the constitutional principles governing elections apply. (See, e.g., *City of San Diego v. Shapiro* (2014) 228 Cal.App.4th 756 [invalidating city’s election approving a “special tax” on certain land owners under the Mello-Roos Act for failure to comply with constitutional restrictions of Prop 13 and Prop 218].) Unjustified or discriminatory interference with the “fundamental right” to vote freely may also be viewed as a violation of the Federal Civil Rights Act (42 U.S.C. §§ 1980 et seq.). Ordinance 2020-24 appears to be a particularly egregious violation of these fundamental rights.

The Home Builders Association of Northern California (HBANC) successfully challenged a very similar attempt to impose a “mandatory CFD” scheme in Santa Rosa in 2011-12 on these grounds. The Court granted summary judgment in favor of HBANC, invalidated the requirement of voting into a CFD as a condition of development approval, and imposed an award of \$243,000 as attorney fees against the City, which was affirmed by the Court of Appeal. (*BIA of the Bay Area/HBANC v. City of Santa Rosa* (Sonoma County Sup. Ct. No. SCV 244441; First Dist. Court of Appeal Case No. A132839.)

3. The City cannot impose unconstitutional conditions on development approvals, whether “discretionary” or otherwise.

A governmental requirement that an applicant agree to vote in a particular way, or agree to subject the applicant’s property to a special tax, or give up any other constitutionally-protected right, as a condition of approval is an invalid “unconstitutional condition.” (See, e.g., *Parrish v. Civil Service Commission* (1967) 66 Cal.2d 260, 271.)

A City may not condition the approval of a permit or benefit, such as land use entitlements, on an applicant’s agreement to surrender a constitutional right (e.g., the right to vote freely; the right to just compensation for taking of property). The doctrine prohibiting such “unconstitutional conditions” applies even where the applicant seeks a discretionary land use approval. (*Koontz v. St. John’s River Water Management Dist.* (2013) 133 S.Ct. 2586 [denial of permit because applicant refused to agree to unconstitutional monetary exactions demanded by district]; *Stamper v. City of Perris* (2016) 1 Cal.5th 576, 592-96 [courts carefully scrutinize governmental demands and conditions of development approval in recognition of landowners’ “vulnerability to the type of coercion that the unconstitutional conditions doctrine prohibits.”]; *San Diego County Water Authority v. Metropolitan Water Dist. of So. Calif.* (2017) 12 Cal.App.5th 1124, 1158-68 [invalidating provision in water supply “agreement” that required plaintiff to “waive” its constitutional right to petition re grievances or to seek judicial relief from the “agreement.”].)

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4. The City cannot impose new exactions which duplicate its impact fees.

The City already charges “development fees” that are supposed to cover the impacts on the City’s public services that are reasonably and proportionally attributable new development. Ordinance 2020-24 imposes substantial and discriminatory burdens on new residents far out of proportion to any demonstrated impacts on public services, and imposes exactions which appear to largely duplicate the burdens already imposed by the City’s development impact fees.

5. The City cannot lawfully use Mello-Roos special taxes to patch an existing “structural budgetary deficit.”

The City identified a perceived “structural budgetary deficit” problem as long ago as June 2019. The Council received a Staff Report, along with the FY 2019/20 Annual Operating Budget, on June 12, 2019, warning of a looming, long-term, fiscal crisis for the City:

“Revenue growth is not keeping pace with the growing costs of municipal services. Increasing operational and retirement costs have added pressure on our ability to maintain current service levels with projected revenue streams....”

The City described this situation as a “structural deficit” – caused by “increasing operational and retirement costs.” No part of the City’s perceived structural deficit or revenue “shortfall” was blamed on impacts of new residential development.

New development and new residents should not be forced to bear Special Taxes to patch that existing structural deficit that they did NOT cause. Such a use is prohibited under the Mello-Roos Act. (Gov. Code § 53340(d) [“The proceeds of any special tax may only be used to pay, in whole or part, the cost of providing public facilities, services, and incidental expenses pursuant to this chapter.”]; Gov. Code § 53343 [“Any special taxes collected pursuant to this chapter may only be used for facilities and services authorized by this chapter.”].)

6. The City has NOT complied with the Mello-Roos Act.

In addition to the failings described above, the City has not shown that the Special Taxes proposed for CFD 2020-001 are justified by evidence of “authorized costs” under the Mello-Roos Act. (Gov. Code § 53313; § 53330.5.) The City’s proposed uses of the special tax revenue of CFD 2020-1 would violate the Act. Particularly if the City intends to mandate annexation to CFD 2020-1 on a “citywide” basis by Ordinance 2020-24, the City would need to demonstrate compliance with the strict legal limitations on the use of Special Tax revenues – which would defeat the stated purposes of CFD 2020-1. (*See* Gov. Code § 53313.)

Under the Mello-Roos Act, “[a] community facilities district tax approved by vote of the landowners of the district may only finance the services authorized in this section to the extent that they are in addition to those provided in the territory of the district before the district was created.

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The additional services shall not supplant services already available within that territory when the district was created.” (See Gov. Code § 53313.) In addition, the special tax may be levied only “so long as it is needed to pay the principal and interest on debt incurred in order to construct facilities under authority of this chapter, or so long as it is needed to pay the costs and incidental expenses of services or of the construction of facilities authorized by this chapter.” (Gov. Code § 53330.5.)

7. The CFD’s assessments are not justified by the evidence in the record.

The KMA *Fiscal Impact Analysis* is flawed and over-states the actual fiscal impact of new residential development – especially multi-family and senior housing – on the City’s costs of providing services. For example, the FIA based its calculation of “impacts” on police services on the unfounded assumption that its proposed new CFD special taxes were “necessary” in order to maintain a level of service of 1.28 sworn police officers per 1,000 residents. However, the City’s existing level of service is only 1.04 sworn officers per 1,000 residents. Thus, contrary to the City’s declared CFD policy, the new special taxes would be unlawfully used to substantially upgrade the existing level of services, rather than to “maintain” them.

The new Special Taxes create a disparate impact and burden on protected populations, targeting housing for low-income, minority, and seniors. The proposed Special Taxes fail to distinguish between “For Sale” and “For Rent” residential projects

8. Ordinance 2020-24 is inconsistent with state and local housing policies, including General Plan policies.

Attempting to fund City-wide public services by imposing Special Taxes on the backs of new residents would create new “governmental constraints” on the provision of housing, in violation of the State Housing Law and the City’s Housing Element.

As recognized by the City’s General Plan, the Housing Element must demonstrate the City’s ability to accommodate the RHNA numbers. (City’s Housing Element, p. IV-107.) By imposing new special taxes or exactions of the magnitude required under Ordinance 2020-24, the City created a significant financial barrier to achieving its own clearly-identified housing objective, thus undermining the City’s attempts to comply with its RHNA obligations.

The proposed new “Special Taxes” as applied to multi-family housing would unreasonably burden and “chill” the development of needed higher density housing options.

The City’s Planning Commission recently called out the City’s perceived need to provide more opportunities for “affordable housing” in Escondido. The new burdens required under Ordinance 2020-24 are diametrically contrary to such affordable housing goals.

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9. **The special tax on the project creates an unjustified disparate impact on protected populations, including low-income, minority, and the elderly population.**

The new policies create a greater financial burden on new multi-family housing, which is traditionally utilized by lower-income individuals as well as minority populations, than on other types of new residential development or existing multi-family housing in the City. Furthermore, the proposed special taxes would have the greatest financial impact as applied to housing intended to be provided for seniors. Such a disparate, unreasonably-discriminatory, impact could result in a finding that the City is in violation of either the State or Federal Fair Housing laws, as would be inconsistent with the City's Housing Element.

10. **Bad Public Policy:**

Even if there were no "legal" problems with the City's new mandatory CFD policy, it is divisive, and bad public policy. One class of residents will be *paying twice* for the same level of services enjoyed by the entire community, while existing residents would not be providing additional funds for the increasing costs of the same services that they enjoy

Moreover, Mello-Roos "special taxes" are not a long-term solution to the City's "structural" budget problems nor are they a reliable source of "funding" for public services; tax-burdened property owners may subsequently act to challenge assessments or to repeal them.

11. **Inadequate Public Notice:**

Not only is the City legally-obligated to give reasonable and adequate advance notice to the public before the takes new legislative action, but the Escondido City Council has traditionally made a point of seeking input from impacted stakeholders and assuring that the public and affected parties are well informed about proposed changes before the Council enacts or implements major changes in the City's land use planning and development policies – especially where the changes will have critical impacts on projects contemplating substantial financial commitments. Unfortunately, that does not appear to have been the case prior to the City enacting the new mandatory CFD Ordinance.

The BIA has requested that the City produce public records to determine whether the City's public record includes any notice published prior to September 23, 2020, in which the City effectively gave notice to the public, or to affected stakeholders like BIA's members, that the City might be intending to adopt a new requirement making annexation to CFD 2020-1 mandatory for all new development projects. To date, the public record does not disclose any such public notice. Nor did the City give any notice prior to September 23, 2020, that the City would unlawfully attempt to apply and enforce that new requirement "retroactively" back to May 13, 2020.

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When City Staff presented the proposed new ordinance that became Ordinance No. 2020-24 to the City Council on September 23, 2020 (for first reading), it was represented as ostensibly intended merely “to memorialize [sic]” some supposed (but unidentified) prior City Council policy requiring all new development projects to annex into the new CFD or to provide some other City-approved “funding mechanism” to cover the alleged impacts of new residential development on public services. There is no public record, however, of any such prior decision by Council adopting such a “policy.” Nor was any evidence of such illusory “prior Council action” provided during the public hearing on September 23, 2020, even when Councilmembers questioned the unusual Staff request to adopt an ordinance to “memorialize” unidentified prior Council action.

12. Timing of Implementation: Even if the new CFD/service exaction requirements on new development were shown to be lawful, the City should have delayed or “phased” the implementation to recognize previously – submitted projects in the “pipeline.”

So far as we are aware, no Council legislative action to require all new developments to provide mandatory CFD annexation or extraordinary funding for public services was adopted prior to the adoption of new Ordinance No. 2020-24, on September 23, 2020. Nevertheless, the City currently intends to enforce that new requirement retroactively against all projects unless they had “received entitlements” before May 13, 2020.¹ IF the new requirement could be shown to be legitimate at all, the City should postpone or phase-in its implementation in order to provide protection and Due Process for previously-submitted projects under review in the City’s development “pipeline.” (See, e.g., *Kaufman & Broad Central Valley, Inc. v. City of Modesto* (1994) 25 Cal.App.4th 1577; *Bright Development Co. v. City of Tracy* (1993) 20 Cal.App.4th 783.)

At a minimum, in the event that the City decides to persist in its misguided new demands for mandatory CFD annexation (or similar unjustified exactions), it is submitted that the Council should at least reconsider and provide for a deferred or phased-in implementation of the new policies, consistent with the City’s prior practices and with state law.

Conclusion:

BIA remains hopeful that the issues raised in this letter may be resolved constructively and informally through discussions with the City, and BIA is ready to confer with City representatives as soon as possible. Please let us know how you would like to arrange such discussions, or if there is any process available to provide such a resolution or any administrative appeal process that should be pursued in this regard. In view of the limited time provided by state law for such

¹ Even that “May 13, 2020” cut-off date is legally inaccurate. That was the date of the Council’s first reading of Ordinance No. 2020-10 and Resolution No. 2020-44. However, the second reading of the Ordinance did not occur till May 20, 2020 – and by its own terms, Ordinance No. 2020-10 did not “take effect” until “thirty (30) days after its final passage” – June 19, 2020.

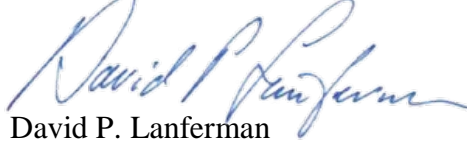
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discussions and corrective action to take place before it would be necessary to seek relief in the courts, we respectfully request that these issues be considered and resolved no later than the first Council meeting in December 2020.

We appreciate the City's urgent consideration of these points, and our requests for corrective action as summarized above, and look forward to your reply as soon as possible. Thank you.

Very truly yours,

RUTAN & TUCKER, LLP



David P. Lanferman

DPL:cm

cc: Borre Winkel, CEO, BIA of San Diego County
Michael McSweeney, BIA of San Diego County
Jeffrey R. Epp, City Manager
Michael McGuinness, City Attorney
Julie Procopio, City Engineer

September 22, 2020

**VIA E-MAIL AND
FIRST CLASS MAIL**

Honorable Chair and Members of the Planning
Commission
CITY OF ESCONDIDO
201 North Broadway
Escondido, CA 92925

Mike Strong
Director of Community Development
CITY OF ESCONDIDO
201 North Broadway
Escondido, CA 92925

Re: **City of Escondido -- Planning Commission: September 22, 2020
Agenda Item G-2: "Palomar Heights"
Escondido Tract No. SUB 1800011**

Responses (and Objections) to Staff's Proposed "Conditions of Approval"

Dear Honorable Chair and Members of the Planning Commission of the City of Escondido:

On behalf of Integral Communities and The Palomar Heights Project, LLC, we respectfully submit these comments and responses to the Staff's proposed conditions of approval for this Project.

We and our clients have enjoyed working constructively with City staff for the past two years in our mutual efforts to creatively redevelop and revitalize the property which was formerly the site of the old Palomar Hospital. Our project aims to provide Escondido with up to 510 much-needed, multi-family homes – including 90 homes designed as residences for seniors, first-time home buyer for-sale units, and family apartments – along with a wide array of public improvements and community amenities.

Our development applications for this Project were submitted to the City back in 2018 after a year of due diligence and City meetings to determine the best plan for the site. In the following months we worked with staff to assure that our Project fully addressed all of the City's existing land use planning and zoning standards and complied with the City's established policies and requirements. The City confirmed that our applications were deemed "complete" at the end of February 2020. The extensive draft Environmental Impact Report ("DEIR") was approved by City staff and circulated for public review from March 20, 2020, through May 4, 2020. The review period was even further extended through May 19, 2020, in light of the Covid-19 pandemic. Potential environmental impacts of the Project were classified as either "less than significant" or

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“less than significant after incorporation of mitigation measures.” Responses to comments on the DEIR and mitigation measures have been prepared and are now incorporated in the Final EIR

We acknowledge that in large part the current Staff Report reflects the results of the cooperative and constructive work by City Staff in consultation with the Project’s representatives and expert consultants. There are, however, several new conditions that have been proposed in the Staff Report, particularly in the section listing the proposed “Engineering Conditions,” which are not the product of such consultation and with which we respectfully disagree. We have listed those problematic conditions below and explained the bases of our concerns. We also attach an Errata Sheet detailing proposed revisions or deletions as to other proposed conditions.

In addition, we note that the Staff Report raises two new issues purporting to respond to our previous communications pointing out the invalidity or inapplicability of any new condition of approval requiring that this Project annex to newly-established Community Facilities District No. 2020-1 (the “CFD”) Those two new issues in the Staff Report, however, miss the point of our objections and are not well-supported, as explained below (see Section I (B) and (C), below).

We would request that the Commission take note of our concerns and objections, and recommend to the City Council that those proposed conditions be modified or deleted.

ENGINEERING DEPARTMENT CONDITIONS (STAFF REPORT, P. 247: “REPAYMENTS AND FEES”)

I. Proposed Condition No. 4. [Required CFD Annexation]

Although the Project had been undergoing review with the City since 2018, it was not until late June 2020 that we were made aware that City Staff was considering the possibility of creating a new requirement that we fund “all on-going operational costs of municipal services” either by “agreeing” to vote to annex this property to the newly-established CFD and becoming subject to the new special taxes, or to establish “another lawful funding mechanism” as a condition of any further City action on these development applications. No such requirement or condition had previously been discussed or contemplated in connection with this Project – which was by then well down the entitlements “pipeline,” and was anticipated to be ready for Planning Commission review at the end of August.

A. The new condition requiring CFD annexation is invalid.

We immediately expressed our concerns about the untimely suggestion of imposing such a new CFD or “funding mechanism” requirement. We subsequently engaged in many discussions with City representatives seeking to work out mutually-acceptable – and lawful – alternative if any provisions to assure that our Project will address any actual increased costs for additional public

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service needs reasonably attributable to the Project (over and above paying the City's current development impact fees). However, as we have previously informed City staff, we are not able to consent to the proposed Engineering Department Condition No. 4, as currently written.

We have previously called Staff's attention to the many public policy, financial, and legal issues that were raised by the proposed mandatory CFD requirement. See, e.g., the letter of August 3, 2020, to City staff [**attached**], pointing out that such a requirement would violate the state Constitution and be subject to legal challenge on at least ten grounds; we also provided the detailed economic analysis prepared by DPF & G, pointing out numerous flaws and deficiencies in the Fiscal Impact Analysis ("FIA") by KMA upon which the CFD is purportedly based.

We respectfully reiterate and incorporate those comments and objections.

B. Our previously-completed application is NOT subject to new CFD policies.

This new proposed Condition No. 4 is not based on any City Council-established policy or standards that were "in effect" when the Project applications were recognized as "complete" by the City on February 28, 2020. Staff's attempt to impose this condition now is thus improper under State Law. The California Subdivision Map Act prohibits a city from basing its tentative map approval – for any kind of tentative map, "vesting" or otherwise – on anything other than adopted policies or standards in effect at the time when the map application is deemed complete. (Gov. Code § 66474.2.)¹

The Staff Report erroneously overlooks this statutory prohibition against applying newly-enacted policies against any map applications which have previously been deemed complete. Instead, the Staff Report mischaracterizes our position as claiming a "vested right" which would require a development agreement or a "vesting tentative map." However, that is not our position, but rather an inapt 'straw man' argument. Our position is simple and straightforward: the governing provisions of State Law make clear that "last minute" conditions based on "new" policies adopted after a map application is complete are illegal. We are entitled per Government Code §66474/2 to have our clients' application decided on the basis of the policies actually in effect at the time the application was complete.

¹ The Staff Report seems to claim that the City formalized the new CFD on May 13, 2020. If so, however, that would be months after the City recognized the Project applications as complete on February 28, 2020. Moreover, Staff just last week made a new recommendation that the Council consider adopting a new Ordinance at its meeting on September 23, 2020, to enact and codify the supposed "requirement" of CFP participation for all new residential development. That further confirms that no such policy was "in effect" prior to February 28, 2020.

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C. Removing this CFP condition does NOT create any valid issue of “general plan consistency.”

In apparent response to our prior objections, the Staff Report now raises a new, and unfounded, contention that “the Project’s General Plan consistency analysis would be considered deficient” if the Staff’s proposed CFD requirement (Condition # 4) is removed by the Commission, the Council, or by a Court. However, there is no merit to those new threats.

To the contrary, the Project EIR included (at Appendix H) a detailed, 68-page, “*General Plan Policy Consistency Analysis Table*” demonstrating in explicit detail the many ways in which this Project (including specified mitigation measures) is in fact “consistent” with the applicable General Plan goals and policies. The EIR concluded that payment of the City’s existing Development Impact Fees is the City’s way of “ensuring that the public facility standards established by the City are met with respect to the additional needs created by such development.” (DEIR, p. 5-47.) This is echoed in the General Plan itself, e.g., Police Services Policy 3.5: “Require new development to contribute fees to maintain police facilities and equipment that meet the needs of the community.” Fire Protection Policy 2.6: “Require new development to contribute fees to maintain fire protection service levels without adversely affecting service levels for existing development.” Fees are not the same as “special taxes.”

The Staff Report fails to cite any General Plan policy encouraging or directing that new development be singled out to pay “special taxes” to fund the existing public services enjoyed by the rest of the community without such double taxation.

Specifically, the Staff Report argues only that if Condition #4 is removed, the Project would no longer be consistent with the following policies:

Housing Policy 1.1: Expand the stock of all housing while preserving the health, safety, and welfare of residents, and maintaining the fiscal stability of the city.

Public Facility Financing Policy 3.1: Maintain and periodically update development impact fees and major infrastructure financing programs to assure that all new and infill developments contribute their proportionate share of funding for necessary municipal infrastructure and public facilities.

Public Facility Financing Policy 3.2: At the discretion of the city, require larger developments to prepare a fiscal impact analysis and a public facilities financing plan that articulates infrastructure and public facilities requirements, as well as costs and funding mechanisms which document the effects upon the city’s operating budget over time.

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Public Facility Financing Policy 3.3: Encourage the use of development agreements and other appropriate financing mechanisms to ensure the timely provision of community facilities at adequate levels to support the demands from new and existing development.

The three foregoing Public Facility Financing Policies – which relate to the timing of construction funding the City’s *physical facilities and infrastructure improvements* (General Plan, p. VIII-5.) – clearly have no application to the proposed Condition #4, which would require annexation into CFD No. 2020-01, which solely funds City *services*. (See also, Staff Report, pp. 27-28 [discussing impacts on “public *service* costs” being addressed by the proposed CFD condition].) Simply put, the proposed CFD condition has no impact on funding of municipal infrastructure or other public facilities, and as a result, removing that condition would have *no impact* on the Project’s consistency with Public Facility Financing Policies 3.1 through 3.3. Additionally, the Project sufficiently offsets its potential impacts on City finances, including public facilities, through the payment of substantial development impact fees (“DIFs”).

The Staff Report presumably cites to the remaining policy – Housing Policy 1.1 – because of its statement that housing should be expanded while “maintaining fiscal stability of the City.” Nothing in this extremely vague policy can be understood to somehow require the proposed CFD Condition #4, and instead, this is precisely the type of general, aspirational statement routinely contained in General Plans that state law has repeatedly held is not an enforceable requirement. Instead, General Plan “consistency” means that a “project be agreement or harmony with the terms of the applicable plan, not in rigid conformity with every detail thereof.” (*Save Our Heritage Organization v. City of San Diego* (2015) 237 Cal.App.4th 163, 185–186; *see also, San Francisco Tomorrow v. City and County of San Francisco* (2014) 229 Cal. App. 4th 498, 513-14 [“it is nearly, if not absolutely, impossible for a project to be in perfect conformity with each and every policy set forth in the applicable plan”].)

Furthermore, the Staff Report’s reliance on policies from the City’s Housing Element is somewhat ironic in light of the City’s policies encouraging housing – particularly more dense, multifamily housing and senior housing in the Downtown area, as proposed by the Project – as well as recent amendments to state law, including both the Housing Crisis Act of 2019 (SB 330) and recent amendments to state Housing Element law that impose much stricter requirements on cities with respect to complying with their Regional Housing Needs Assessment (“RHNA”) allocations. As indicated in the Staff Report, the project has exceeded the 5th cycle allocation in the housing element.

With respect to the City’s General Plan, the Project would implement and further the following additional (nonexclusive) policies relating to encouraging the type of infill growth proposed by the Project:

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Housing Policy 2.1: Accommodate the regional share of housing for all income groups.

Housing Policy 2.4 Seek ways to eliminate all forms of discrimination based on race, ancestry, national origin or color, religion, sex, familial or marital status, disability, medical condition, age, sexual orientation, or source of income in obtaining housing.

Community Character Policy 1.5: The city should maintain its single-family residential development pattern, except in locations such as the downtown, along major transportation corridors, and around commercial and public activity centers, where higher densities are more appropriate.

Community Character Policy 1.9: Promote development in downtown, at transit stations, and other key districts to accommodate a mix of land uses and configure uses to promote walkability, bicycling, and transit uses, reducing the need for the automobile.

Residential Development Policy 3.9: Promote new residential subdivisions, multi-family projects, and development in Mixed Use Overlay areas to incorporate smart growth principles such as:

- a) Walkways, shade trees, seating areas and other pedestrian activity, and enhance resident quality of life;
- b) Features that promote the use of alternative transportation options;
- c) Opportunities for residents to conduct routine errands close to their residence;
- d) Maximum connectivity with surrounding uses to become a part of the area rather than an isolated project;
- e) Architectural elements or themes from the surrounding neighborhood; and,
- f) Appropriate transitions between land use designations to minimize compatibility conflicts.

Mixed Use Overlay Policy 7.1: Designate areas for the development of mixed-use projects in a pedestrian-friendly environment integrating housing with retail, office, and service uses (childcare, health, etc.) consistent with the General Plan's vision and long-term growth needs.

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Mixed Use Overlay Policy 7.3: Focus the tallest buildings and developments with the highest intensities and densities in mixed use districts in the downtown and key urban activity centers that are well-served by transit, close to employment, services, utilities, and recreational facilities.

Imposition of the CFD Condition #4 would inhibit the furtherance of the foregoing policies by making the Project's proposed housing more expensive or otherwise interfering with the Project.

Additionally, it bears noting that the General Plan is eight years old, yet CFD No. 2020-01 was only formed this year, meaning that IF the position taken in the Staff Report is correct, then all housing projects that have been approved by the City since the adoption of the General Plan would also have to be viewed as "inconsistent" with Housing Policy 1.1 (or other policies the Staff Report purports to rely on), for failing to impose similar conditions regarding annexation into a CFD..

The proposal to add this new discriminatory and unlawful CFD requirement threatens to unjustifiably inflict further costs and delays that substantially impede, if not imperil, the feasibility of the Project and our ability to provide these critically-needed new housing resources and other public amenities.

II. Proposed Condition No. 5. [Reimbursement of FIA costs]

This newly-added proposed condition of approval would require the Project to reimburse the City's costs for having KMA prepare the Fiscal Impact Analysis for the Senior Apartment component of the Project and the [proposed] "independent third party review" of the DPF &G financial analysis and critique of the KMA study submitted on our behalf, "including consultant and staff time." There was no CFD nor any FIA requirement in place in the City when we applied for this Project, nor when our applications were deemed "complete" in February. There was no notice given that we, as an applicant, might be subjected to any such conditions – nor did the City have any such requirements or standards in effect at that time. The proposed Condition No. 5 therefore violates the California Subdivision Map Act, Gov. Code § 66474.2 [tentative map approval can only be based on City standards in effect when application is deemed complete]. Moreover, as noted above, and as detailed in the DPF&G critique, the FIA prepared for the City's consideration of the new "services CFD" is flawed and inconsistent in many respects. It would not be reasonable or lawful to demand that our Project reimburse the costs of a flawed FIA. We therefore cannot consent to Condition No. 5 as written.

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III. Proposed Condition No. 3. [Time for Payment of Development Fees]

This proposed Condition #3 – as written in the “Engineering Department Conditions” at page 247 of the Staff Report – would apparently require payment of all development fees to the City “at the time, and in such amounts as may prevail when Building Permits are issued.”

However, this proposed Condition #3 is inconsistent with the wording of the similar “General Condition” at page 225 of the Staff Report (Condition #10, “Fees”). It is also inconsistent with – and in violation of – the Mitigation Fee Act and with the City’s own Municipal Code Section 6-438.

While it may be appropriate to set the amounts of the development fees payable at the rates or amounts in effect at the time building permits are issued, the City may not lawfully require that all development fees be paid at the time “when Building Permits are issued.” Under the Mitigation Fee Act, any city or other “local agency that imposes any fees or charges on a residential development for the construction of public improvements or facilities shall not require the payment of those fees or charges, notwithstanding any other provision of law, until the date of the final inspection or the date the certificate of occupancy is issued...” (Gov. Code § 66007(a).) Accordingly, we are not able to consent to Condition #3 as currently written, and urge that it be revised to conform to “General Condition # 10 and Gov. Code § 66007.

IV. “Errata Sheet” – Comments on Other Proposed Conditions

In addition to the foregoing comments and objections on the three proposed Engineering Department Conditions, we respectfully refer the Commission to the **attached Exhibit** (an Errata Sheet) detailing the applicants’ additional comments and proposed revisions or deletions as to other aspects of the proposed conditions of approval.

V. Conclusion

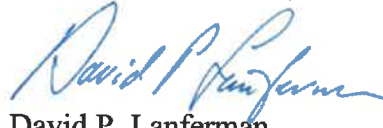
We appreciate the Commission’s courtesy and consideration of our concerns and comments, and respectfully reiterate our requests that the Commission recommend to the City Council that the disputed conditions be withdrawn or modified as stated in this letter and the accompanying Errata Sheet.

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Planning Commission
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Thank you for your consideration.

Very Truly Yours,

RUTAN & TUCKER, LLP



David P. Lanferman

cc: Lance Waite, Integral Communities
Ninia Hammond, Integral Communities
Gil Miltenberger, Integral Communities
Jeffrey R. Epp, City Manager
Michael McGuinness, City Attorney
Hans Van Ligten, Rutan & Tucker, LLP
Mark Dillon, Gatzke Dillon & Ballance LLP
Kimberley Foy, Gatzke Dillon & Ballance LLP

Errata Exhibit
To Conditions of Approval
SUB 18-0011

Planning Conditions for clarification, removal, modification, objection:

PAGE -223-
CLARIFICATION A.2

2. Permit Expiration. The Planned Development Permit shall expire thirty-six (36) months from the effective date of approval, unless additional time is granted pursuant to the Map Act or to the Escondido Municipal Code.

PAGE -224-
MODIFY A.4.a.

4. Conformance to Approved Plans.

- a. The operation and/or use of the subject property ~~shall be consistent~~ shall be in substantial conformance with the Project Description and Details of Request, designated with the Approved Plan set.

PAGE – 224 -
STRIKE Condition 7.a.

7. Availability of Permit Conditions.

- ~~a. Prior to grading permit issuance, the Applicant shall cause a covenant regarding real property to be recorded that sets forth the terms and conditions of this Permit approval and shall be of a form and content satisfactory to the Director of Community Development.~~

PAGE – 224-
MODIFY CONDITION A.8

8. An inspection by the Planning Division will be required prior to the operation of the Project. Items subject to inspection include, but are not limited to parking layout and striping (double-stripe), identification of handicap parking stalls and required tow-away signs, lighting, landscaping, as well as any outstanding condition(s) of approval. Everything should be installed prior to calling for an inspection, although preliminary inspections may be requested. Contact the Project planner at (760) 839-4671 to arrange a final inspection.
~~Right to Entry. The holder of this Permit shall make the premises available for inspection by City staff during construction or operating hours and allow the investigations of property necessary to ensure that minimum codes, regulations, local ordinances and safety requirements are properly followed. The Applicant shall provide such business records, licenses, and other~~

materials necessary upon request to provide evidence of compliance with the conditions of approval, as well as federal, state, or laws.

PAGE – 225-
MODIFY CONDITION A.9

9. ~~Compliance with Federal, State, and Local Laws. Nothing in this Permit shall relieve the Applicant from complying with conditions, performance standards, and regulations generally imposed upon activities similar in nature to the activity authorized by this permit. (Permits from other agencies may be required and it is the applicant's sole responsibility and obligation to obtain said permits.) This Permit does not relieve the Applicant of the obligation to comply with all applicable statutes, regulations, and procedures in effect at the time that any engineering permits or building permits are issued unless specifically waived herein.~~

PAGE – 225-
MODIFY CONDITION 10

10. The appropriate development fees and Citywide Facility Fees shall be paid ~~in accordance with the prevailing fee schedule in effect at the time of building permit issuance,~~ to the satisfaction of the Director of Community Development. Through plan check processing, the Applicant shall pay development fees ~~at the established rate.~~ Such fees may include but not be limited to: Permit and Plan Checking Fees, Water and Sewer Service Fees, School Fees, Traffic Mitigation Fees, Flood Control Mitigation Fees, Park Mitigation Fees, Fire Mitigation / Cost Recovery Fees, and other fees listed in the Fee Schedule, which may be amended. Arrangements to pay these fees shall be made prior to building permit issuance but fees shall not be demanded to be paid until the final inspection or certificate of occupancy (govt code 66007) to the satisfaction of the Community Development Department. Additional information regarding fees and other funding mechanism(s) have been identified in the Engineering conditions of approval.

PAGE – 226 –
STRIKE Condition 15

15. ~~Revocation, Suspension, Modification. At any time after Project implementation, the City may require a noticed public hearing to be scheduled before the Planning Commission to determine if there has been demonstrated a good faith intent to proceed in reliance on this approval. This item may be referred to the appropriate decision-making body upon recommendation of the Director of Community Development for review and possible revocation or modification of the Permit regarding non-compliance with the Conditions of Approval.~~

~~This Permit may be revoked, suspended or modified by the Planning Commission, or by the City Council on appeal, at any time regardless of who is the owner of the subject property or who has the right to possession thereof or who is using the same at such time, whenever, after a noticed hearing, and after the following findings are fully investigated:~~

- ~~a. A violation of any term or condition not abated, corrected or rectified within the time specified on the notice of violation; or~~
- ~~b. A violation of any City ordinance, state law, or federal law not abated, corrected or rectified within~~

~~the time specified on the notice of violation; or~~

~~e. The use as presently conducted creates or constitutes a nuisance.~~

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MODIFY CONDITION 16

16. Indemnification. The Applicant shall hold harmless the City, its Council Members, its Commission and Boards, officers, agents, employees, and representatives from liability for any award, damages, costs and fees incurred by the City and/or awarded to any plaintiff in an action challenging the validity of any approval or denial of the application and from and against any and all claims, losses, proceedings, damages, causes of action, liabilities, costs and expenses,

including reasonable attorney's fees, arising from or in connection with, or caused by (i) any act, omission or negligence of Applicant, or their respective contractors, licensees, invitees, agents, sublessees, servants or employees, wherever on or adjacent to the property the same may occur; (ii) any use of the property, or any accident, injury, death or damage to any person or property occurring in, or on or about the property, or any part thereof, or from the conduct of the Applicant or owner's business or from any activity, work or thing done, permitted or suffered by Applicant or owner or its sublessees, contractors, employees, or invitees, in or about the property, other than to the extent arising as a result of City's sole active negligence or to the extent of any willful misconduct of the City; and (iii) any default in the performance of any obligations of Applicant's or owner's part to be performed under the terms of this Agreement, or arising from any negligence of Applicant or owner, or any such claim or any action or proceeding brought thereon; and in case any action or proceedings be brought against the City, its officers, employees, agents and representatives, by reason of any such claim, Applicant or owner, upon notice from City, shall defend the same at its expense by counsel reasonably satisfactory to City. Applicant further agrees to and shall indemnify, defend, protect, and hold harmless the City, its officers, employees, agents and representatives, from and against any and all actions brought by any third party to challenge the Project or its approval by the City, including environmental determinations. Such indemnification shall include any costs and expenses incurred by City in such action(s), including reasonable attorney's fees. The obligations under this terms shall cease when any legal proceedings arising from approval of the project or issuance of a permit for the project have been concluded or when the project's approvals are revoked, withdrawn, rescinded, set aside, rejected, or overturned, whichever occurs first.

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MODIFY CONDITION C.7.

Modify

7. ~~Within the parking count references are Additional locating space shall be~~ loading spaces provided on-site. A minimum of two spaces shall be provided adjacent to Building 23, two spaces adjacent to Building 1, and one space adjacent to Building 18. Spaces shall be uncovered (not in garages) so as to accommodate taller delivery vehicles, and shall be located as close to elevator access as possible. Spaces shall be accommodated by enlarging parking spaces shown on the site plan and signing them as reserved during typical delivery hours (e.g. 8:00am-6:00pm, Monday through Friday) subject to the parking management plan.

PAGE – 230-

STRIKE CONDITION 10

10. ~~Residents of the apartment units shall be provided with only one garage access remote.~~

PAGE – 231-
STRIKE CONDITION 5

- ~~5. Failure to maintain landscaping and the site in general may result in the setting of a public hearing to revoke or modify the Permit approval.~~

PAGE – 233-
MODIFY Condition E.3.

- E. Architecture.** Buildings shall be as shown on the project plans attached to this resolution as Exhibit "B," except as modified herein. The following modifications shall be provided to enhance the architectural quality of the project:

PAGE – 233-
MODIFY Condition E. 3.

- ~~3. Additional architectural enhancement is required along the eastern facade of Building 18 to the satisfaction of the Director of Community Development. This shall include horizontal and vertical relief of at least three feet in various locations, and cannot be accomplished simply through the use of different colors and materials to the satisfaction of the Director of Community Development.~~

PAGE – 233-
STRIKE Condition E. 4

- ~~4. Wrap around decks shall be provided on corner units.~~

PAGE – 233-
MODIFY Condition E.5

- ~~5. A rooftop deck Rooftop decks with appropriate seating, decorative lighting, planters, etc., shall be provided on the southwest corner of Building 1 and the northwest corner of Building 23.~~

PAGE -233-
STRIKE CONDITION E.6.

- ~~6. Additional detail is required for the facade of the commercial area on the northwest corner of Valley Boulevard and E. Grand Avenue. Design Review will be required.~~

PAGE -233-
MODIFY CONDITION E.7.

- ~~7. The entrance to the senior apartment building shall be enhanced and embellished to more appropriately identify it as the building entryway. This should include the use of double doors, and a taller and more distinct entry element to the satisfaction of the Director of Community Development tower element. Other options can be proposed for consideration by staff.~~

PAGE -233-
STRIKE CONDITION F.1.

- F. Operational Requirements.** The following limitations, requirements, restrictions and provisions related to the operational characteristics of the project shall be adhered to:

- ~~1. Residents of the senior apartment building (Building 24) shall be provided access to use any and all~~

~~residential amenities on the primary portion of the project site (east of Valley Boulevard).~~

PAGE – 233-
STRIKE CONDITION F.2.

~~2. One unit in the senior apartment building shall be reserved for an on-site resident manager.~~

PAGE -233-
MODIFY CONDITION F.5.

5. Residents of the project shall be permitted free use of the on-site gym. Public use of the gym is permitted, at the discretion of the applicant.

PAGE – 234-
STRIKE CONDITION 2.a.b.c.

~~2. The first phase of the project shall include, at a minimum, the following:~~

- ~~a. All frontage improvements.~~
- ~~b. Building 23.~~
- ~~c. The central recreation area (pool, spa, etc.)~~

PAGE – 234-
STRIKE CONDITION 3

~~3. Occupancy shall not be granted to more than 50 percent of any one housing type until occupancy is granted for Building 23.~~

PAGE – 234-
MODIFY CONDITION 4

6. The Applicant shall cause the full quota of development permissible and required as part of the Specific Alignment Plan ("SAP") for Valley Parkway to be fully constructed, as set forth on the application materials and plans on file with the Escondido City Clerk's Office and the Planning Division, prior to the issuance of the certificates of occupancy for the 300th 50th unit of the Project, irrespective of Project phasing.

PAGE – 235-
MODIFY CONDITION 3

3. If applicable, prior to the recordation of the final map, ~~Prior to building permit issuance, the applicant shall enter into and cause to be recorded a Senior Housing Regulatory Agreement, to be provided by to the City, which shall contain requirements for the design, phasing, construction, marketing, occupancy and maintenance of the senior housing project. The provision herein does not limit the authority of the applicant to enter into an affordable housing covenant or regulatory agreement with nonpossessory interest in real property imposing limitations, restrictions or affirmative obligations that encourage development or that ensure continued availability of affordable rental and owner-occupied housing for low or moderate income individuals. on the 1-acre parcel specific to the 90-unit apartment site (Building 24).~~

PAGE – 235-
MODIFY CONDITION 4

4. ~~The appropriate agreement(s) shall contain the term, household income requirements and restrictions (if any), rental rate restriction (if any), sales price restriction (if any), monitoring procedures and any other conditions to ensure the appropriate occupancy during the term. The occupancy term of the senior housing project shall commence on the issuance of certification of occupancy for unit, and continue in accordance with provisions contained within the Senior Housing Ordinance (Article 41 of the Escondido Zoning Code). Said Regulatory Agreement shall be of a form and content satisfactory to the Community Development Director.~~

PAGE – 235-
MODIFY CONDITION 1

I. Fire Department Conditions

1. Minimum fire flow for Building 24 is 2,000 ~~2,500~~ gallons per minute (GPM).

PAGE – 235-
MODIFY CONDITION 2

2. Minimum fire flow for all buildings east of Valley Boulevard (Buildings 1 – 23) is 2,000~~3,500~~ GPM.

PAGE – 236-
MODIFY CONDITION J.2.

2. The location of all existing on-site and adjacent utilities and storm drain facilities shall be determined by the Developer's engineer. If a conflict occurs with the proposed project or improvements, arrangements for relocation of the conflicting utilities/facilities shall be made with the owner of the utility/facility prior to approval of the Grading and Improvement plans and Final Map. This utility/facility relocation work shall be completed prior to issuance of Building Permits Certificate of Occupancy for any building or structure in conflict with the utility/facility in question.

PAGE – 239-
MODIFY CONDITION 19

19. The Developer as part of the approved Valley Boulevard Specific Alignment plan shall design and construct a multimodal transportation hub along the east curb line of Valley Boulevard just north of the reconstructed Grand Ave and Valley Boulevard intersection. The multimodal hub shall include an ~~enhanced~~ bus stop per NCTD requirements, street furniture, shade structures, and other mobility hub amenities and have room for ride share pick up and drop off. The Developer shall coordinate with NCTD for provisions of bus service and the bus stop amenities at this location and for locations along all project frontages. The bus amenities and street furniture shall be maintained by the Property Owners or Home Owners Association unless otherwise maintained by NCTD.

PAGE – 240-
MODIFY CONDITION 23

23. The Developer shall remove and replace all damaged sidewalk, curb and gutter, from work done by Developer, along all project frontages to the satisfaction of the City Engineer prior to issuance of a Certificate of Occupancy.

PAGE – 242-
STRIKE CONDITION 5

- ~~5. During construction of the project the Developer will be required to evaluate the current condition of the existing 42" equivalent arch corrugated metal pipe storm drain and do any repairs as necessary to ensure project drainage can be conveyed in the design storm event.~~

PAGE – 244-
STRIKE CONDITION 17

- ~~17. Storm Drains and other utility systems shall be constructed as shown on the approved tentative map. There shall be no permanent structures or private facilities allowed within a public utility easement. Where private storm drains are necessary, they shall be the outer most utility.~~

PAGE – 245-
STRIKE CONDITION 15

- ~~15. Utility systems shall be constructed as shown on the approved tentative map. There shall be no permanent structures or private utilities located within public sewer or public utility easements. Where it is necessary that the private storm drains share a public easement, they shall be placed on the outer most edge away from the public sewer or water.~~

PAGE – 247-
MODIFY CONDITION 2

2 Prior to issuance of the 395th Certificate of Occupancy, the Developer shall make a Fair Share Contribution of \$25,000 towards the future Grand Avenue and Ivy Street intersection improvements (4.6% of ~~\$2million~~ contribution toward design and construction of a future improvement round-a-bout).

PAGE -247-
OBJECT – CONDITION -4

- ~~4. The Applicant shall fund all on going operational costs of providing municipal services required for the Project, the amount of such funding to be determined by the City Council at the time of Project approval. Such funding shall occur through either an agreement to form or annex into a Community Facilities District (CFD) or the establishment of another lawful funding mechanism reasonably acceptable to the City ("Public Services Funding Agreement"). The provisions of the Public Services Funding Agreement shall specify any terms and limitations necessary to implement the CFD or other funding mechanism to offset the impacts to public services associated with the project. The City Manager, or City Manager's designee, shall be authorized to approve and execute the Public Services Funding Agreement, and the Public Services Funding Agreement shall be finalized prior to the City's issuance of any permit for the Project.~~

PAGE -247-
OBJECT – CONDITION -5

- ~~5. Prior to the issuance of the any permit for the Project, the Applicant shall reimburse the City for the cost to prepare the Fiscal Impact Analysis for the proposed Senior Apartments and the independent third-party review of the financial analysis submitted by the applicant, including consultant and staff time costs.~~

August 3, 2020

**VIA E-MAIL AND
FIRST CLASS MAIL**

Jeffrey R. Epps,
City Manager
CITY OF ESCONDIDO
201 North Broadway
Escondido, CA 92925

Mike Strong,
Director of Community Development
CITY OF ESCONDIDO
201 North Broadway
Escondido, CA 92925

Re: **Palomar Heights: Scheduling of Planning Commission Hearing and
Objections to unlawful demand for annexation to CFD 2020-1**

Dear City Manager Epps and Director Strong:

On behalf of our clients, The Palomar Heights Project, LLC (and “Integral Communities” or “Integral”), we urgently reiterate their requests that the City of Escondido immediately resume the timely processing of the completed development applications for the Palomar Heights Project, and schedule those applications for Planning Commission hearing no later than August 25, 2020 – and that the City abandon the City Staff’s unlawful new demand that our clients “agree” to annex this property to newly-established Community Facilities District No. 2020-1 (the “CFD”) as a condition of any further City action on the development applications. The City’s untimely attempt to impose a new condition requiring that the Project be subjected to discriminatory and unlawful CFD burdens threatens to unjustifiably inflict further costs and delays that substantially impede, if not imperil, Integral’s ability to provide these critically-needed new housing resources.

We just received Director Strong’s letter of July 30, 2020, and we also take this opportunity to respond to some of the erroneous assertions in that letter. While Director Strong’s efforts to suggest some new “options for moving the Project forward” are appreciated, we must emphatically point out that the only lawful “option” for moving this Project forward at this point is for the City to immediately and expeditiously resume processing the Project applications -- without any new conditions or delays. We urge the City to immediately withdraw the CFD demand, to abandon the notion of requiring new “revisions” to the EIR on the pretext that there has been any “change” in the Project, and to schedule the Palomar Heights applications for Planning Commission hearing no later than August 25, 2020 – as we had been led to expect.

As you know, Integral has been working constructively for years with City of Escondido to provide the City with all necessary information requested, and has agreed to comply with all reasonable and lawful conditions, in order to facilitate the timely processing and consideration of its development applications. The City properly acknowledged these applications to be

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“complete” at least five (5) months ago (by letter dated February 28, 2020), and staff has previously assured Integral that the applications are ready and able to be considered by the Planning Commission. We had been led to anticipate that the applications would be scheduled for a Planning Commission hearing no later than August 25, 2020.

Our client was just informed last week, however, that City staff is refusing to move these applications forward for Planning Commission review unless our client “agrees” to become subject to the City’s newly-established Community Facilities District No. 2020-01 and to subject its property to the “special taxes” imposed under that CFD. Those demands by City staff for CFD annexation are confirmed in the letter dated July 30, 2020, from Director Strong. That letter, however, does not accurately state the facts regarding the interplay between the Palomar Heights entitlements and the City’s hasty and non-compliant efforts to establish the new CFD, nor does it address the insurmountable legal obstacles precluding the staff’s new attempts to impose CFD annexation demands against this project. Nor does that letter or any other recent communication from City staff cite any Council-adopted policy explicitly authorizing staff to impose such demands as mandatory conditions of processing or approving new residential developments. Such demands are manifestly unlawful, indeed unconstitutional. We urge the City to reconsider.

Staff’s insistence on imposition of this CFD “requirement” on the project, arbitrarily imposing burdens on new residents far out of proportion to any demonstrated impacts on public facilities or services, is the type of misuse of governmental land use authority that the United States Supreme Court has repeatedly condemned and invalidated. (See, e.g., *Koontz v. St. John’s River Water Management Dist.* (2013) 133 S.Ct. 2586; *Dolan v. City of Tigard* (1994) 512 U.S. 364, 387 [city’s imposition of exactions “through gimmickry” and without showing of nexus or rough proportionality to impacts converted land use regulation into “an out-and-out plan of extortion.”].)

A. THE CITY CANNOT LAWFULLY COMPEL THE PALOMAR HEIGHTS PROJECT TO “AGREE” TO ANNEXATION INTO NEW CFD 2020-01.

Integral has previously communicated some of its objections regarding this new demand for annexation into CFD 2020-01 to City staff, along with a detailed financial analysis demonstrating inconsistencies and flaws in the CFD’s special tax calculations. The City’s threatened actions are inconsistent with the Mello-Roos Community Facilities District Act of 1982 (the “Act”) as well as other state legislation governing land use and housing. Integral has also pointed out the discriminatory and excessive financial burdens that the CFD would impose on the Palomar Heights property and its prospective new residents, in violation of state and federal housing laws and contrary to fundamental principles of the City’s own General Plan.

We reiterate and summarize, below, some of the many legal problems with the City’s attempt to coerce the annexation of the Palomar Heights project to CFD No. 2020-1:

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1. **The City cannot require property owners to “vote” to annex their property into the new Mello Roos CFD or for new “special taxes” as a condition of entitlement approvals.**

The City apparently now intends to “require all new residential development to annex into a maintenance and services CFD” as a condition of processing applications and approvals of “entitlements.” As previously noted, however, City staff has not cited any City Council-approved ordinance or resolution authorizing staff to impose such new requirements or demands. If the City intends to apply or enforce such a new policy to require applicants for new development “entitlements” to vote to annex their property into the new CFD and to pay its “special taxes” as a condition of approval, the City would be unlawfully abridging the constitutional and statutory rights of property owners to vote freely on such issues. *See generally*, California Elections Code § 18540 [it is illegal, and may be prosecuted as a felony, for anyone to induce or coerce a vote for or against any particular person or measure].

Where, as in this case, the state has established an electoral process involving a “vote,” the constitutional principles governing elections apply. (See, e.g., *City of San Diego v. Shapiro* (2014) 228 Cal.App.4th 756 [invalidating city’s election approving a “special tax” on certain land owners under the Mello-Roos Act for failure to comply with constitutional restrictions of Prop 13 and Prop 218].) The right to vote “may be the most fundamental of all rights” (*Bd. of Supervisors v. LAFCO of Sacramento County* (1992) 3 Cal.4th 903, 913.) Unjustified or discriminatory interference with the “fundamental right” to vote freely may also be viewed as a violation of the FEDERAL CIVIL RIGHTS ACT (42 U.S.C. §§ 1980 et seq.). The recent attempts by City staff to apply that unlawful new CFD requirement against Integral -- and use it as a pretext for further delaying the processing of the Palomar Heights project -- are particularly egregious violations of this fundamental right.

Indeed, the Home Builders Association of Northern California (HBANC) successfully challenged a very similar “mandatory CFD” scheme in Santa Rosa in 2011-12 on these grounds. The City Council there adopted its ordinance expressly providing that all residential property for which any discretionary permit or approval is sought “is required to be annexed into the CFD and pay its annual Special Tax.” The Court granted summary judgment in favor of HBANC, invalidated the requirement of voting into a CFD as a condition of development approval, and awarded \$243,000 as attorney fees to HBANC against the City. (*BIA of the Bay Area/HBANC v. City of Santa Rosa* (Sonoma County Sup. Ct. No. SCV 244441.) The City did not appeal the judgment invalidating its CFD requirement, and the award of more than \$200,000 in attorneys’ fees against the City was affirmed on appeal (Appellate No. A132839).

If the City staff persists in refusing to process Integral’s applications because of Integral’s rejection of the unlawful demands to acquiesce in the unjustified demand for CFD participation, such refusal would be regarded in law as if the City has denied the application. Such wrongful action by the City would be subject to correction in court by immediate injunctive and/or

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mandamus relief. (See, e.g., *Koontz v. St. John's River Water Management Dist.* (2013) 133 S.Ct. 2586 [government's refusal to grant permit unless applicant agreed to pay unjustified 'in-lieu fees' was equivalent to imposition of unlawful demand subject to judicial review and correction].)

2. **The City cannot impose unconstitutional conditions even on "discretionary" actions or "entitlement" approvals.**

A governmental requirement that an applicant agree to vote in a particular way, or agree to subject the applicant's property to a special tax, or give up any other constitutionally-protected right, as a condition of approval is an unconstitutional condition. (See, e.g., *Parrish v. Civil Service Commission* (1967) 66 Cal.2d 260, 271.)

A government may not condition the approval of a permit or benefit, such as land use entitlements, on an applicant's agreement to surrender a constitutional right (e.g., the right to vote freely; the right to just compensation for taking of property). The doctrine prohibiting such "unconstitutional conditions" applies even where the applicant seeks a discretionary approval. (*Koontz v. St. John's River Water Management Dist.* (2013) 133 S.Ct. 2586 [denial of permit because applicant refused to agree to unconstitutional monetary exactions demanded by district]; *Stamper v. City of Perris* (2016) 1 Cal.5th 576, 592-96 [courts carefully scrutinize governmental demands and conditions of development approval in recognition of landowners' "vulnerability to the type of coercion that the unconstitutional conditions doctrine prohibits."]; *San Diego County Water Authority v. Metropolitan Water Dist. of So. Calif.* (2017) 12 Cal.App.5th 1124, 1158-68 [invalidating provision in water supply "agreement" that required plaintiff to "waive" its constitutional right to petition re grievances or to seek judicial relief from the "agreement."].)

3. **The project applications were complete before the new CFD was established and there is no legal basis for attempting to impose a new CFD requirement on this project.**

The unlawful City policy, requiring "new" residential developments to annex into a CFD as a condition of entitlement processing, was not in existence or in legal effect at the time the Project applications were submitted in late 2018 and deemed "complete" in February 2020. The City appears to acknowledge that it cannot legally attempt to apply that policy retroactively. The City's website states that projects which "received entitlements" at least before May 13, 2020, are not subject to the purported requirement of CFD annexation. It appears that the City Council's first reading and approval for new Ordinance No. 2020-10 and Resolution No. 2020-44 occurred on May 13, 2020, and the second reading of the Ordinance did not occur till May 20, 2020. By its own terms, Ordinance No. 2020-10 did not "take effect" until "thirty (30) days after its final passage." Therefore, any projects – including this Project – which had received entitlements before June 19, 2020 (rather than May 13), could not be subject to the new CFD policy, even if that policy were lawful.

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The development applications for the Palomar Heights Project were submitted in 2018 -- long before any City efforts toward creation of a “services CFD.” The City confirmed in writing that those applications were recognized as “complete” no later than February 28, 2020. Accordingly, the Project may be subject only to the ordinances, policies, and standards that were already in effect as of February 28, 2020. (Gov. Code § 66474.2.) Those ordinances and policies did not include any mandatory requirement of annexation into any CFD – and the City Council had not even confirmed its “intention” to form a new CFD 2020-1 at that time. The Project EIR was also completed, and the initial public review period expired, before the CFD was created. The City Council did not adopt the initial “Resolution of Intention” to form a new CFD until April 8, 2020 (Res. No. 2020-24). The City is thus absolutely precluded by law from attempting to require annexation or other action under its new, subsequently-adopted, CFD policies. (*Kaufman & Broad Central Valley, Inc. v. City of Modesto* (1994) 25 Cal.App.4th 1577; *Bright Development Co. v. City of Tracy* (1993) 20 Cal.App.4th 783.)

4. **Imposing a CFD annexation requirement on this project would violate the Housing Accountability Act.**

As part of California’s enhanced efforts to facilitate the construction of much-needed new housing throughout the state, the California Housing Accountability Act (HAA) now severely limits the authority of a city or other local governments to deny or impede a residential development project that complies with applicable, objective planning and zoning standards – such as the Palomar Heights project. A city may only deny such a project if the City is able to make specific findings supported by a preponderance of the evidence that: (1) the housing development project would have a specific, adverse impact upon the public health or safety and (2) there is no feasible method to satisfactorily mitigate or avoid the adverse impact. (Gov. Code § 65589.5(j).)

The Legislature has defined a “specific adverse impact” to mean a “significant, quantifiable, direct, and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.” (Gov. Code § 65589.5(j)(1)(A).) As explained previously, the City confirmed that the Project application was “complete” well before the City created the new CFD. See also, Gov. Code § 65589.5(o) further provides that the City may apply only such charges or fees as may have been in effect at the time the application was submitted.¹ Because the CFD would result in a new set of charges or exactions that were not in effect when the application was submitted, the project cannot be subjected to the new demands that Palomar Heights agree to be annexed to the CFD and subjected to its new special taxes. Integral’s decision not to become subject to the newly created CFD is not valid grounds for the City refusing to process or approve the Project applications.

¹ The HAA includes a limited exception, not applicable here, for increases to fees, charges, or other monetary exactions, resulting from an automatic annual adjustment based on an independently published cost index. (Gov. Code § 65589.5(o)(2)(A).)

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The Palomar Heights Project complies with the applicable, objective planning and zoning standards. There is no evidence, let alone a preponderance of the evidence, that the project would result in a specific adverse impact upon the public health or safety, or that such impacts (if any) could not be mitigated or avoided through other feasible means. Accordingly, if the City were to persist in denying a hearing or denying approval of the project because Integral refuses to yield to the unjustified demand for CFD annexation, such actions would be deemed to violate the HAA. (Gov. Code § 65589.5(j).)

Significantly, the Legislature specifically provided that successful enforcement of claims under the HAA, such as either or both of these claims, would entitle the applicant to an award of attorneys' fees against a non-compliant city. (Gov. Code § 65589.5(k).)

5. **Imposition of the special tax on multi-family housing in an opportunity site is contrary to the City's Housing Element.**

As recognized by the City's General Plan, the Housing Element must demonstrate the City's ability to accommodate the RHNA numbers. (City's Housing Element, p. IV-107.) To meet this requirement, the City's Housing Element references the Palomar Medical Center site, asserting that the contemplated improvements could add up to 300 housing units. (City's Housing Element, p. IV-111.) By imposing a special tax of the magnitude proposed by the City, the City would essentially be erecting a significant financial barrier to achieving its own clearly-identified housing objective, thus undermining the City's attempts to comply with its RHNA obligations.

6. **The special tax on the project creates an unjustified disparate impact on protected populations, including low-income, minority, and the elderly population.**

The proposed special tax creates a greater financial burden on new multi-family housing, which is traditionally utilized by lower-income individuals as well as minority populations, than on other types of new residential development or existing multi-family housing in the City. Furthermore, the proposed special taxes would have the greatest financial impact as applied to housing intended to be provided for seniors. Such a disparate, unreasonably-discriminatory, impact could result in a finding that the City is in violation of either the State or Federal fair housing laws, as would be inconsistent with the City's Housing Element.

7. **The City cannot show that CFD 2020-1 complies with the Mello-Roos Act.**

Under the Mello-Roos CFD Act, "[a] community facilities district tax approved by vote of the landowners of the district may only finance the services authorized in this section to the extent that they are in addition to those provided in the territory of the district before the district was

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created. The additional services shall not supplant services already available within that territory when the district was created.” (See Gov. Code § 53313.) Likewise, a CFD cannot impose fees on the proposed property, unless the district can show that the fees are necessary to pay for the “additional services” as authorized by Government Code § 53313. (Gov. Code § 53330.5 [“In addition, the special tax may be levied only so long as it is needed to pay the principal and interest on debt incurred in order to construct facilities under authority of this chapter, or so long as it is needed to pay the costs and incidental expenses of services or of the construction of facilities authorized by this chapter.”].) The “chapter” does not authorize the use of the special tax for general city services.

In particular, while Government Code section 53313 provides that a CFD “may be established ... to finance ... the following types of services within an area ...,” it also makes it clear that such services are limited to those to be provided in the area paying the special tax. (*Friends of the Library of Monterey Park v. City of Monterey Park* (1989) 211 Cal.App.3d 358, 376.)

The new CFD is not supported by sufficient evidence or analysis demonstrating how the proposed “Services” are “additional services” that are authorized within the limitations of the Act; much less by substantial evidence showing that these taxes are justified to fund additional services required as a result of the new project. Integral has provided staff with a detailed analysis by DPF&G, which critiques the KMA Fiscal Impact Analysis and demonstrates several critical flaws in its assumptions and calculations. For example, DPF&G points out that the FIA based its calculation of “impacts” on police services on the unfounded assumption that its proposed new CFD special taxes were “necessary” in order to maintain a level of service of 1.28 sworn police officers per 1,000 residents. However, the FIA itself confirms that the City’s existing level of service is only 1.04 sworn officers per 1,000 residents. Thus, contrary to the City’s declared CFD policy, the new special taxes would actually be used to substantially upgrade the existing level of services, rather than to “maintain” them.

Also, the FIA’s “one-size-fits-all” approach failed to take into account the fact that the Palomar Heights project involves conversion of a previous hospital property to multi-family residential with a commercial element. The ‘fiscal impacts’ of this project are thus far different than, and substantially less than, impacts of residential development on previously-undeveloped land, such as the Lennar project which was in a suburban area, and previously consisted entirely of a golf course.

8. **The CFD cannot be used to backfill the City’s structural budgetary deficit.**

Here, the City appears to be attempting to address an existing structural deficit by forcing new development to essentially backfill the budgetary gap, rather than to cover the cost of any true “additional services” that are necessitated by new development in general, much less this particular

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new development. Such a use is prohibited under the Act. (Gov. Code § 53340(d) [“The proceeds of any special tax may only be used to pay, in whole or part, the cost of providing public facilities, services, and incidental expenses pursuant to this chapter.”]; Gov. Code § 53343 [“Any special taxes collected pursuant to this chapter may only be used for facilities and services authorized by this chapter.”].) In light of these legal restrictions, even if the developer were to agree to be included in a CFD, the City’s annexation of the property could be considered an *ultra vires* act if the CFD taxes are not limited to, and applied only to, covering the authorized costs of the additional services.

9. **The new “special taxes” will chill the development of needed higher density housing options.**

As explained above, the proposed special tax is considerably greater for multi-family development than for single-family detached development. In imposing these special taxes, the City is impairing the ability of Integral and other housing providers to develop much needed high-density housing to address the State’s housing crisis, and vitiates the stated objectives of incentivizing this very type of development.

10. **The proposed rate of “special taxes” is excessive and unreasonable.**

Under Government Code § 53339.3(d), when annexing property into an existing CFD, a “lower tax may be levied within the territory proposed to be annexed or to be annexed in the future to the extent that the actual cost of providing the services in that territory is higher or lower than the cost of providing those services in the existing district.” Here, the property at issue was already developed, and thus already required many, if not all, of the services that the CFD purports to cover. Conversely, the Lennar project involved a residential project to be developed on a former golf course, which clearly did not require the same level of service.

Accordingly, if Integral were to ultimately agree to be subject to the CFD, the special tax to be imposed on the Palomar Heights property would have to be significantly lower. (See Gov. Code § 53340(a) [“After creation of a community facilities district that includes territory proposed for annexation in the future by unanimous approval as described in subdivision (b) of Section 53339.3, the legislative body may, by ordinance, provide for the levy of special taxes on parcels that will be annexed to the community facilities district at the rate or rates to be approved unanimously by the owner or owners of each parcel or parcels to be annexed to the community facilities district and for apportionment and collection of the special taxes in the manner specified in the resolution of formation.”].)

As previously noted, Integral’s consultants, DPF&G, have reviewed KMA’s report and the proposed special tax levels, and have found certain inconsistencies, as well as a variety of reasons as to why the hospital site property should not be subject to the same analysis and conclusions as

Jeffrey Epps,
August 3, 2020
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was applied to the Lennar project. Those initial comments and analysis by DPF&G were previously provided to City staff but will gladly be provided again if requested.

B. RESPONSES TO ERRORS IN LETTER OF JULY 30, 2020 FROM DIRECTOR STRONG.

We have just been provided a copy of the letter from Director Strong to Integral, dated July 30, 2020, purporting to provide some “options on how best to move forward” with “reasonable expediency” in the City’s processing and consideration of the Palomar Heights applications. As should be apparent from the preceding sections of this letter, we believe the “best” way – and the only lawful way – for the City to move forward with Integral’s applications is to immediately set them for hearing with the Planning Commission no later than August 25, 2020, without any insistence upon Integral “agreeing” to annex into the new CFD.

1. The City did NOT put Integral “on notice” of any intention to require that the Palomar Heights project “agree” to annex to a new CFD as a condition of approval.

The recent letter from Director Strong summarizes some of the background leading up to the Council’s action on May 13, 2020, establishing new CFD 2020-1 as though to imply that the City was thereby somehow putting Integral on notice that the City would be creating these unlawful new policies and demands for annexation into the CFD as a condition of the City’s continued processing of the Palomar Heights applications. The facts, however, do not support any such implication that the City actually gave lawful notice of these new policies (if they are in fact Council-adopted policies).

None of the actions mentioned in Director Strong’s letter include any express notice to Integral or to the public generally indicating that the City might at some unspecified point in the future demand that “all new residential development in the City” must vote to annex into a vaguely-described prospective CFD as an absolute precondition to the City’s continued consideration of new applications for development “entitlements.” Much less did any of those actions give notice that the City might intend to try to apply these new CFD demands against the Palomar Heights project, which was already far along in the entitlements process. Resolution No. 2020-2 (January 15, 2020) merely directed City staff to “prepare documents necessary *to consider* the formation of a Citywide CFD to offset ongoing municipal costs of serving new residential development.” Nothing gave any notice as to when or how any such possible new CFD might be applied (“voluntary” or otherwise), or to which properties it might apply, or what type of “entitlements” might trigger its application, etc.

Similarly, nothing in the Council’s actions of April 8, 2020, or May 13, 2020, gave any such “notice” that the newly-created CFDs (one for Lennar’s “Villages” project and the other

Jeffrey Epps,
August 3, 2020
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vaguely-described “Citywide” CFD) were intended to be applicable to Palomar Heights, much less intended to be mandatory preconditions to the continued processing of the Integral project. To the contrary, the terse discussions of the proposed CFD in the staff reports indicated that new development projects would be “allowed” to voluntarily participate in the CFD – not “compelled” to do so.

The City gave no “Notice of Special Tax” to Integral during the process of creating CFD 2020-1. To the contrary, the Staff Report for the January 15, 2020, Council meeting stated that “a special tax would not be assessed until after the City Council conditions a development project to annex to the Services CFD (upon development) and the property owner votes affirmatively to annex.” A “vote” implies an “election,” i.e., free choice.

Despite the extensive and detailed discussions over the years between City staff and Integral regarding the Project, the EIR, and possible conditions of approval, there was no mention of any prospective requirement mandating annexation to the new CFD. As discussed below, any mention of the new CFD and its proposed new special taxes was conspicuously absent from the Project EIR and the otherwise comprehensive communications from the City staff regarding proposed conditions of approval for the project.

2. **Nothing in the Project EIR misled the City to assume that Palomar Heights would voluntarily agree to annex to the not-yet-existing CFD or pay its “special taxes.”**

The assertion in the letter from Director Strong that the Project EIR somehow misled City staff to assume that the Project would be annexing into the CFD is similarly unsupported by the facts or applicable law. The Project EIR was completed, published and circulated for public comment on March 20, 2020. At that time, the City had not provided the public with any details about a possible new services CFD, and the City Council had not taken any action to legally form a new “Citywide services CFD.” It would have therefore required incredible prophetic powers for the EIR preparers to have anticipated such a CFD and include CFD special taxes as any kind of possible mitigation measure. As Director Strong candidly admits, “there is no direct reference to the Services CFD in the EIR currently.” There is no “indirect” reference either.

The City’s assertions are not bolstered by the occasional references to payment of City “fees” in the EIR. Such references to “development fees” are quite distinct from any not-yet-established CFD “special taxes.” It is well established in California law that “fees” are not the same as “taxes,” special or otherwise. (E.g., Gov. Code § 66000(b) [development “fees” exclude “special taxes”]; *Silicon Valley Taxpayers’ Ass’n v. Santa Clara County etc.* (2008) 44 Cal.4th 431.) One critical distinction is that “fees” are not valid unless the City imposing the fees produces evidence demonstrating a reasonable “nexus” between the fee or exaction imposed and the project’s impacts, and rough proportionality between the amounts charged and the actual

Jeffrey Epps,
August 3, 2020
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“impacts” on public facilities or services caused by the development. (Gov. Code §§ 66001, 66006.)

In that regard, the letter further errs by asserting that “the Services CFD was established through a *nexus study*....” The City has never provided any such “nexus study” to try to justify the new special taxes, and there is no way that the KMA “Fiscal Impact Analysis” even pretends to serve as a legitimate “nexus study.” Nor did the City even attempt to comply with the statutory requirements of the Mitigation Fee Act necessary to establish lawful “development fees.”

In sum, there is no evidence anywhere in the City’s EIR or in the processing of the project applications that would have ever justified the new claim that staff “reasonably understood” that this Project would agree to annex or otherwise be subjected to the newly-created CFD.

3. **The City CANNOT now use the failure to include provisions for payment of special taxes as a pretext to require “revisions” to the Project EIR**

Apparently conceding that there is absolutely no legal basis for the City staff to now refuse to continue timely processing of the Palomar Heights project, Director Strong’s letter improperly resorts to raising thinly-disguised threats to further delay under the pretext of making “revisions to the EIR” to analyze “potential effects resulting from this change (*sic*) to the Project.”

There is no “change to the Project” since neither the Project nor the EIR ever contemplated or required CFD annexation or payment of “special taxes” in the first place. The CFD’s special taxes were never expressed as mitigation in the EIR – and they never could have been lawfully contemplated as feasible mitigation measures under CEQA. Payment of “special taxes” – as distinct from lawfully-established impact fees -- are not appropriate or legitimate “mitigation” under CEQA. CEQA expressly states that it creates no new authority for lead agencies to impose mitigation requirements. (CEQA Guidelines, § 15040(b).) And CEQA specifies that any mitigation measures must comply with applicable constitutional requirements including the nexus and rough proportionality requirements of *Nollan* and *Dolan*. (CEQA Guidelines, §15041(a).)

The threats of further delays raised in Director Strong’s letter are wholly unjustified, either by the facts or by any provision of CEQA. The infliction of any further delays to allow the City to either coerce involuntary CFD annexation or to fabricate new measures to “mitigate” for non-existent “change” in the Project would be clearly recognized as an abuse of the CEQA process. (Cf., *Sunset Drive Corp. v. City of Redlands* (1999) 73 Cal.App.4th 215.)

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August 3, 2020
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CONCLUSION

We respectfully but firmly reiterate Integral's requests that the City immediately drop its demands that Integral "agree" to annex to the new CFD as a condition of approval for the Palomar Heights Project. We further urge the City to immediately resume timely and expeditious processing of the Palomar Heights Project applications for Planning Commission review, and set them for hearing by the Planning Commission on the August 25, 2020 agenda – without any conditions relating to CFD annexation.

We look forward to the City's urgent review and serious consideration of the points set forth above, and look forward to your reply as soon as possible. Thank you.

RUTAN & TUCKER, LLP



David P. Lanferman

DPL

cc: Michael McGuinness, City Attorney
Lance Waite, Integral Communities
Ninia Hammond, Integral Communities
Gil Miltenberger, Integral Communities
Hans Van Ligten, Rutan & Tucker, LLP

September 22, 2020

TO: Planning Commissioners

FROM: Joanne Tasher, Department Assistant

SUBJECT: September 22, 2020 Planning Commission Public Hearing
Item G.2, SUB 18-0011, PHG 18-0049 and ENV 18-0009
"Palomar Heights"

Attached is public correspondence regarding the project received by the City after the staff report was distributed on September 17, 2020.

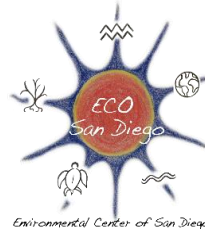
1. Coalition of environmental, climate change, and labor organizations
2. Anonymous email
3. Consolidated support letters (provided by applicant)
4. Southwest Regional Council of Carpenters (Mitchell M. Tsai, Attorney at Law)

Please contact Adam Finestone at afinestone@escondido.org or 760-839-6203 if you have any questions.



SIERRA CLUB
SAN DIEGO CHAPTER

Serving the Environment in San Diego and Imperial Counties



SAN DIEGO COASTKEEPER



September 18, 2020

Mayor Paul McNamara, City Council Members and Planning Commission
City of Escondido
201 N. Broadway
Escondido, CA 92025

Via Email

RE: Request to DENY Palomar Heights proposal and recommend that the City Council convey a recommendation to the Palomar Hospital Board to re-issue a Request for Proposals for the Old Palomar Hospital site.

Dear Mayor, City Council and Planning Commissioners:

The undersigned organizations share a commitment to building a vibrant, inclusive economy that delivers economic and environmental justice, lifts up communities, creates healthier communities, addresses the climate crisis, and ensures resource conservation.

Several of us sent a letter on November 18, 2019 (see Attachment) urging the city of Escondido to step forward as a model for how local government can realize economic and environmental sustainability through land-use decisions. Since that time, it has become increasingly clear Integral's proposal for the Old Palomar Hospital site falls far short of this vision.

We strongly support transit-oriented development projects that create affordable housing, high-quality construction jobs and apprenticeship training opportunities in the community and the old hospital site is probably the best location in the entire city for a signature, quality, high-density project offering a range of housing options. **Unfortunately, this is not what Integral is bringing to the community and we urge you to reject their proposal.** Moreover:

1. Any development at this site should be high-density closer to the planned zoning with no fewer than 900-1,000 DU minimum density.
2. The fiscal impact of the project on Escondido taxpayers is estimated to be \$300,000 per year, that should be recuperated through service Community Facilities District (CFD) fees or other offsets. Any development impact fee reduction constitutes a public subsidy that requires the payment of prevailing wages to construction workers under California Labor Code Section 1720(b)(4).
3. Any development in this location must include on site affordable housing, no less than 30%.
4. Any development here should integrate walkable/bikeable and transit use and Vehicle Miles Traveled (VMT) reduction measures into its project scope, traffic mitigation and urban design, to be consistent with Escondido's new Climate Action Plan and Senate Bill 743.

We urge you to deny Integral's project, conduct a true objective appraisal, and re-issue the Request for Proposals with clear climate, labor standards and affordable housing criteria and align with the points outlined above.

We join others in wanting housing and progress on this site and believe the best and the most expedient way to achieve sale of the property and secure a quality project is to issue a Request for Proposals/Qualifications (RFP/Q) for this site, in order to solicit the best value through a competitive process. We ask the Planning Commission to recommend that the RFP/Q include a requirement for a Community Benefits Agreement to address labor, climate, environmental, and affordable housing in a future project and convene a stakeholder group including representatives of the signers of this letter to develop the conditions needed for a project that truly meets the needs of the city.

Sincerely,

Tom Lemmon, Business Manager, San Diego County Building & Construction Trades Council

Jeremy Abrams, Business Manager, IBEW Local 569

Brigitte Browning, President, UNITE HERE Local 30

Ron Forster, Escondido Neighbors United

Pamela Heatherington, Board of Directors, Environmental Center of San Diego

George Courser, Chair, Conservation Committee, Sierra Club San Diego Chapter

Jim Miller, Vice President, AFT Local 1931

Noah Harris, Transportation Policy Advocate, Climate Action Campaign

Marco Gonzalez, Executive Director, Coastal Environmental Rights Foundation

Jim Peugh, Conservation Committee Chair, San Diego Audubon Society

Matt O'Malley, Executive Director, San Diego Coastkeeper

Tara Hammond, Founder & CEO, Hammond Climate Solutions

Bee Mittermiller, Chair Transportation Team, SanDiego350

Kyle Heiskala, Interim Executive Director, BikeSD

Attachment: November 18, 2019 Letter RE: Request for transit-oriented land use development decisions in Escondido



November 18, 2019

Mayor Paul McNamara and City Council members
City of Escondido
201 N. Broadway
Escondido, CA 92025

RE: Request for transit-oriented land use development decisions in Escondido

Dear Mayor and City Council,

The undersigned organizations are members of the Quality of Life Coalition committed to building a vibrant, inclusive economy that delivers economic and environmental justice, lifts up communities, creates healthier communities, addresses the climate crisis, and ensures resource conservation.

As leaders of the city, you will make critical decisions about the future of the region in the next few months. From a planning perspective, the city of Escondido is uniquely poised, in time and in place, to be a model for how local government can realize economic and environmental sustainability through land-use decisions.

The city's location on multiple transportation corridors, the urgent need for housing stock that is affordable, the opportunities presented to increase density in the urban core, the need to create good, middle-class jobs for local workers in the region through collective bargaining, including project labor agreements, especially in vulnerable neighborhoods, and the ability to stop the haphazard development in remote and inappropriate areas make your decisions even more critical.

Consider these important facts and issues:

- Escondido has significantly underbuilt housing in the low, moderate, and very low income categories. Of special concern is that Escondido has only built 2.2% of needed housing for moderate-income earners and met only 11% of the low-income need. More density in the urban core would provide more opportunity to address these important needs.
- Increased housing density is needed to support the greater use of transit needed to reduce greenhouse gas emissions. The California Air Resources Board's 2018 report on SB 375 implementation identified a need to provide more affordable housing choices near jobs and transit to help reverse the trend in rising Vehicle Miles Traveled (VMT). Escondido is lucky to have a Sprinter station and well-defined transportation corridors in place. Escondido has vacant and developable areas near and on these corridors where housing density, in accordance with the general and specific plans, should be maximized. Unfortunately, so far, in the places where density is desirable from a planning perspective, the actual projects being built are falling far short.
- The region has cutting-edge, state-approved apprenticeship facilities and a highly skilled, trained and qualified construction workforce. As we have seen many times, linking strong job quality and workforce standards with development projects that provide training and work opportunities for County residents through a Project Labor Agreement with key provisions including participation in state-approved joint labor-management apprenticeship; local hire with enforceable standards targeting vulnerable communities and populations, like veterans; and labor peace result in successful projects that deliver community and local economic benefits.
- Protecting the natural environment, air quality, and creation of open spaces are paramount to creating a livable city. Reducing pressure on significant habitat areas and creating more open space options for residents will result in a city that is more attractive to residents and businesses.

In this light, the undersigned organizations urge the city's elected officials and staff to take actions in the next year to move the city in the direction of sensible land use, creation of housing that is needed, promotion of urban infill, and to move away from inappropriately located development.

Specifically, we request the city take the following actions.

1. Hold-off on decisions related to the proposed redevelopment of Palomar Hospital until a project that includes at least 1,000 units is proposed. The current proposal is less than one third of what is allowable on the site. The location, directly on a transportation corridor and adjacent to downtown, should not be squandered on a low-density, luxury townhome development. This site would be perfect for a public private partnership and should add housing in the ranges needed in the city. The city could also require that some portion of the units be affordable to lower and moderate income families and individuals to help address the goals in the housing element of its General Plan and maximize the opportunity to connect low- and moderate-income households to transit.
2. Initiate a review of development opportunities on parking lots and other areas in transportation corridors to address the need for more affordable units and increase density in the area. These sites, including the hospital site, are prime examples where the Request For Proposals process should be utilized to solicit the kind of partners and development the city and Escondido residents need.

3. Create a stakeholder working group to develop an urban infill/transit oriented development strategy that also addresses the housing needs of lower and moderate income households for downtown and other corridor areas already in the urban footprint prior to making further development decisions. This strategy should then be incorporated into the city's Climate Action Plan Update, to make Escondido the region's leader in implementing the kind of smart growth tools needed at the local level to meaningfully address the climate crisis. We believe the city would have many coalition partners ready to support and help develop the projects needed to activate and enrich Escondido. We would welcome the opportunity to work with you on such an effort.
4. As more development projects come before you, to focus and maximize resources now and to realize a successful transit-oriented future, projects adopted by the city should meet clear objectives. Projects that the city supports should reduce (not increase) VMT; avoid high-risk fire areas; ensure safe evacuation routes for all residents; add to affordable housing stock; qualify as infill developments; contribute to the support of transit; preserve and protect core habitat and open space areas; are on or near transportation corridors; require the job quality and workforce standards referenced above; address climate impacts in the near and long-term; and, implement land use patterns consistent with tenets of good planning. Projects that do not meet these objectives, should not be pursued.

The decisions the city will make soon will set the course for the livability and success of Escondido in the changing world of the future. Whether those decisions will take the city in a positive or negative direction will depend on your actions. Please use these opportunities to bring your development decisions in alignment with transit-supportive land use plans that provide the housing we need for residents of all income levels and in the locations we need them.

We hope you will call on any of our organizations to assist and support the city in these critical decisions.

Sincerely,

Sophie Wolfram, Climate Action Campaign, Chair, QOL Transportation Committee

Rick Bates, UNITE HERE Local 30

Diane Takvorian, Environmental Health Coalition

Bee Mittermiller, Chair Transportation Team, San Diego 350

Tom Lemmon, Business Manager, San Diego County Building & Construction Trades Council

Jennifer Hunt, Advocacy Coordinator, San Diego County Bicycle Coalition

Jeremy Abrams, Business Manager, IBEW 569

George Courser, San Diego Sierra Club

Jim Miller, American Federation of Teachers, Local 1931

Laura Hunter, Escondido Neighbors United

Pamela Heatherington, Environmental Center of San Diego

Cc

Jeff Epp, City Manager

Jay Petrek, Assistant City Manager

Bill Martin, Community Development

Adam Finestone, Planning

Joanne Tasher

Sent: Saturday, September 19, 2020 10:22 AM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Heights

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.



Passion. People. Purpose.™

September 23, 2020

City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Re: Service CFD

Dear Honorable Mayor and City Council Members,

We have recently been made aware that the City has passed a city-wide Service CFD that will affect all new residential projects in the City including the Palomar Heights project. This particular issue is disconcerting, and we are very troubled with the Service CFD as it relates to the Palomar Heights project. As you know, we are under contract with Integral Communities on the development of the hospital site, and we are very excited about the plan and all the good it will bring to downtown.

Being one of the largest employers in the city we are always concerned about the welfare of our employees including suitable housing. The Palomar Heights projects does just that by providing housing at attainable levels for our employees and the city as a whole. The Service CFD adds an additional special tax which will add an unreasonable cost burden thus making the project potentially unfeasible.

As some of you may remember, in 2017, when staff proposed an approximate \$10,000 per unit fee increase in the downtown area, Palomar Health opposed the increase and spoke out against it. Subsequently, City Council approved a three-stage increase, and now three years later the full amount of the fee increase will be realized by Palomar Health and the Palomar Heights project. Palomar Health cannot absorb anymore fee increases to sustain the project. We will not have any services on that campus after September so it will be vacant. The City is now delaying the approvals until Palomar Heights agrees to this additional increased cost by way of a Service CFD. We believe the Service CFD should be re-examined, studied, and reconsidered by the City Council as to how effective such a financial burden would be and how it discourages housing.

The Palomar Heights project should be exempt from any Service CFD, since it has been in process for over three years. It isn't reasonable that a project, right before its approval, is handcuffed with such a financial burden, especially when a substantial fee increase has already been absorbed.

We would implore the City Council to give staff direction to exempt the Palomar Heights project from the Service CFD.

Respectfully,

A handwritten signature in black ink, appearing to read "Diane Hansen".

Diane L. Hansen, CPA
Chief Executive Officer
Palomar Health

Administration

456 East Grand Avenue, Escondido, CA 92025 | T 760.740.6393 | PalomarHealth.org

A California Public Healthcare District

June 22, 2020

City of Escondido

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Re: Support for Palomar Heights

We are writing to express our support of the Palomar Heights project based on our review of both the residential and commercial mixed use aspects. This is a project that we think is commercially viable, and that we would be interested in being an operator in and to fully support it any way possible.

This will bring viable uses to downtown Escondido adding to our wonderful Grand commercial atmosphere and the added population of 1400 residents is needed to keep our shops, restaurants and bars in business.

We currently own a 40,000 sq ft office complex, two restaurants of approximately 16,000 sq ft and 107 acres of land with a boutique hotel in San Pasquel Valley. We currently employ approximately 200 people within Escondido with another 200 in the Vista area.

We have advised the developer that are happy to commit contractually to the restaurant sites, sandwich shop and boutique grocery store in this development which we anticipate would create another 100 plus jobs. It is our hope that the restaurants and grocery store would sell local homegrown products from the Escondido and close surroundings.

This is an exciting project! Let's get together and make this happen so we can enjoy a glass of wine at the Sky Lounge as soon as possible.

Brian Bonar
Trucept
Chairman of the Board

February 10, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member John Masson
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Re: Palomar Heights Project

Thank you for your partnership in working toward a better future for Escondido and for the Downtown Business District. Part of our overall mission in the Downtown Business Association "DBA" is to promote advocacy (including support), downtown access, and improvements. Over the last year and a half, we have met with Integral Communities the Developer of the Palomar Height project on three separate occasions at both Board meetings and at our monthly meetings. We have been presented with the project as it has evolved from the first submittal to the current proposal.

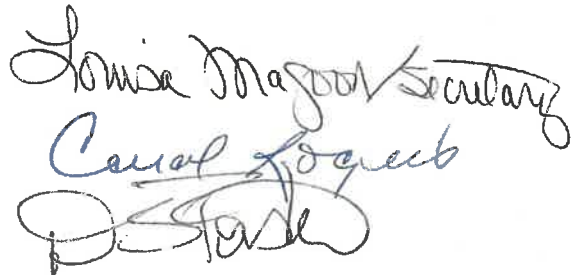
Based on the current proposal of 510 residential units, 10,000 square feet of commercial and the associated improvements including the marquee corner feature, the reconfiguration of Valley Boulevard, the associated improvements and recreation, our Board would like to extend our support for the proposed project. We have worked with the Developer to discuss our concerns about reducing parking ratios, the size and type of commercial space and the addition of residents to our downtown. We are pleased with the results of those discussions and therefore lend our support to the project.

The DBA listens to its member businesses, works to stay abreast of urban trends, works with police and city staff on security, beautification, business and economic issues, and continues to follow guidelines of the successful National Main Street program for healthy historic downtown districts. We feel that Palomar Heights will be a great addition to Downtown Escondido and we encourage you to support the project when it comes forward to bolster the vibrancy of our beautiful downtown.

Sincerely,



Alex MacLachlan
President
Escondido Downtown Business Association



Louise Magallon Secretary
Causal Projects
P. Stark



SAN DIEGO NORTH

Economic Development Council

June 23, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Honorable Mayor and Councilmembers:

On behalf of the Board of Directors of the San Diego North Economic Development Council (SDNEDC), I would like to express our support for the Palomar Heights project. At our last Board meeting this June the board heard a presentation on the project and subsequently engaged in a vigorous discussion. Our board, comprised of leading employers from throughout North County, voted, with only one dissention, to support the project (several of our public sector members either are ex-officio members or abstained).

The SDNEDC's core mission is to improve the prosperity for the citizens of North County. We believe that the project as proposed meets two critical needs that will help our region realize that objective.

First, Palomar Heights addresses an imbalance between retail space and population density and will significantly improve Escondido's historic downtown and help further spark its revitalization. There are approximately 7.2 million square feet of retail space within 2 miles of the proposed location. Using national standards of 23.5 square foot per capita there is enough retail space to support a population of 300,000. Within 2 miles of Palomar Heights, according to a GIS analysis we performed on June 25th, there are 93,231 residents (2018 ACS 5 Year estimate). The total population of Escondido, according to the California Department of Finance E-5 estimates, is 153,000. There is simply too much retail in this part of North County for the number of residents living nearby.

This overbuilding of retail has had deleterious impacts on Escondido. There are few reasons to invest in tenant improvements and upgrades to retail buildings. Many storefronts remain either vacant, under used or underinvested in and this hurts economic activity in Downtown. This is all the more true since Grand Avenue is some distance off the freeway, making merchants in Downtown Escondido especially reliant upon shoppers who live in the vicinity.

The Palomar Heights project addresses that deficit by adding 510 units at the site which translates into likely 800 to 1,200 new residents in Downtown Escondido who will be in walking distance of Grand Avenue retail establishments. The design elements of row homes and site orientation will encourage connections between residents and nearby retailers. We feel the proposed plan synergizes with Grand

Avenue while a more grandiose, mixed-use plan would directly compete in an already oversaturated market with downtown retailers. Trying to build tens of thousands of additional square feet of retailing on the site is neither appropriate for the present circulation patterns nor a land use that supports Downtown Escondido as a whole.

Second, North County has a significant jobs-housing imbalance. Between 2013 and 2019 the five "Innovate 78" cities added, according to Economic Modeling Specialist Inc., 39,000 net new jobs (both payroll and non-W2 workers). Over the same period of time, these five cities added just 9,140 new housing units. That ratio, of more than 4 net new workers chasing every 1 net new home has had predictable results. Housing cost and rents have rapidly increased. Workers holding the highest paying jobs have largely been able to keep up with this increased cost of living. Less well compensated workers, however, have been forced to pay an increasing share of their paycheck toward housing, double up with other families or move to far flung suburbs and suffer soul crushing commutes. Indeed, it should not come as a shock that, according to CALTRANS traffic counts, between 2013 and 2017 (the last year of data) average daily trips at the San Diego/Riverside line increased by more than 9%. Housing not built in North County just means that the workers are displaced to Southern Riverside County, taking with them their tax dollars while still congesting our freeways and contributing even more to GHG emissions.

For these reasons we believe the project deserves your enthusiastic support as a critical addition to Escondido. I am confident that you will look back, once Palomar Heights is completed, with pride on your vote next month to move the project forward. I am happy to answer any questions you may have about the data in this letter and our analysis of the underlying economics of the proposed project.

Sincerely,



W. Erik Bruvold
Chief Executive Officer
San Diego North Economic Development Council

FORGOTTEN

BARREL

1120 W. 15th Ave
Escondido, CA 92025
(760)518-1104

June 15, 2020

City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Attention: Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Members: Olga Diaz and Michael Morasco, John Masson

Dear Honorable Mayor, Deputy Mayor, and Council Members,

In response to a recent review of the Palomar Heights project, I am writing to express my support. As a business owner in Escondido, I am excited to see continued redevelopment, and restoration of the downtown area, as do the vast majority of other local business owners that I know. We believe that this type of project is vital to the future of Escondido.

In addition to being a significant new source of property and sales tax revenues, the overall project is a viable and pleasing mix of residential and commercial development that will bring fresh vibrancy, and excitement to the City as a whole but, in particular to the downtown area. This project is a welcome addition to our City, and I encourage you, to join me, and many Escondido business owners, in support of it.

Sincerely,

Rodger Grove
Forgotten Barrel Winery
Owner

Effinger

34225 Faircrest Street
Murrieta, CA 92563
619-200-3387

July 13, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco

City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Mayor McNamara and City Councilmembers,

I am writing today in support of the Palomar Heights project which will revitalize the former Palomar Health hospital campus and grow our community in a positive way. As we collectively look toward the future and continue to envision an even better Escondido, Palomar Heights helps to get us closer to that goal. This project is designed to fit in to the downtown specific plan, balance the retail core and provide opportunities for future generations.

I am a member of the Palomar Health Foundation Board. I was formerly a homeowner in downtown Escondido. My daughter and her husband are now Escondido homeowners, and my son and his fiancé are renting in the Old Escondido area, hoping to fulfill their dreams of home ownership in this wonderful town. Palomar Heights could offer to them that home ownership dream in a walkable, urban setting, which something that is tough to find in Escondido. Palomar Heights opens the door to for-sale units that do not exist, especially downtown, and mixes it with a diverse mix of apartments, age targeted senior housing and public amenities, like the innovative Sky Lounge in the icon tower. This is all in addition to the positive impacts to the surrounding businesses who would greatly benefit from an increase in foot traffic.

I am an active member of the Escondido community, involved in various aspects from real estate to the Escondido USD, to volunteering with the Foundation for Senior Wellbeing. Palomar Heights thoughtfully connects downtown and acts as a gateway to the Eastern Valley, a bridge that Escondido should not only welcome but embrace as a means to have more cohesion and inclusion. Please join me in support of Palomar Heights.

Thank you,



Kirk Effinger



402 West Broadway, Suite 1000
San Diego, CA 92101-3585
p: 619.544.1300

www.sdchamber.org

September 16, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Subject: Support for Palomar Heights

Dear Honorable Mayor and Councilmembers:

The San Diego Regional Chamber of Commerce (Chamber) represents almost 2,500 businesses in the region, translating to approximately 300,000 jobs. Each of those jobs belong to people who rely on stable housing options that are affordable to their families. On behalf of the Chamber, whose mission is to make San Diego the best place to do business in California I write to offer our support for Palomar Heights.

The City of Escondido has a tremendous opportunity to further its mission of planning for more vitality and vibrancy in the downtown area by approving the Palomar Heights project. The current design features 510 residential units, 10,000 square feet of commercial space and numerous community and resident benefits. Palomar Heights has been carefully crafted to cultivate businesses and encourage much-needed foot traffic to the downtown corridor, which in turn helps businesses thrive. Our members were particularly impressed with the thoughtful balance of commercial and residential space, and the deference to existing businesses to help weave the new development into existing operations. This collaborative approach to designing communities can enhance success, build trust, and ensure that there is long-term shared success.

Furthermore, as the hub for connections and collaboration for the business community, the Chamber knows first-hand the challenges we face with housing shortages, particularly with for-sale units. This project would significantly contribute to Escondido's housing supply. From age-targeted senior housing, to for-sale townhomes and apartments for rent, Palomar Heights will invite a diverse population into the downtown community to enliven the area throughout the day and into the night.

This project would be a welcomed addition to Escondido's downtown, and I encourage you to join me in supporting this effort.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Sanders', written over a horizontal line.

Jerry Sanders
President & CEO
San Diego Regional Chamber of Commerce

July 27, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Honorable Mayor and Councilmembers:

In response to a recent review of the Palomar Heights project, I am writing to express my support.

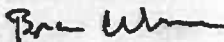
This mix of residential and commercial uses will benefit not only downtown Escondido but the City as a whole. Job production, tax revenue and income spending are what Downtown Escondido needs, especially with the current financial future.

The time is now. The downtown hospital campus is almost entirely vacant with plans to complete the move this year. This area could benefit greatly from the revitalization proposed with this project and the commitment of investment to our City is something we should not take lightly.

As a resident of Escondido, I am excited for the new housing stock to come into the downtown market place, especially the for-sale units. This project would significantly contribute to our city's housing supply. From age-targeted senior housing, to for-sale townhomes and apartments for rent Palomar Heights will invite a diverse population into our community to enliven downtown throughout the day and into the night.

This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,



Brian Williams

Escondido Resident - 3017 Burnet Drive, Escondido CA 92027

June 22, 2020

City of Escondido

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Re: Support for Palomar Heights

I am an investor in multiple downtown Escondido projects including 355 E. Grand Ave which was completely gutted and rebuilt after sitting vacant for approximately 2 years and leased to Classical Academy.

In addition, I was involved in the acquisition and leasing of the 5th Ave. Corporate Center (235 W. 5th Ave) which was completely renovated in 2017 with the entire 2nd floor rebuilt and leased to Finance of America, a subsidiary of the Blackstone Group NYSE: BX) along with the retail center at 426W. 2nd Ave that includes the Phone Repair Store, Best Foot Forward Dance studio and Tortilleria. Most recently, I completed \$2M renovation of another project which sat vacant for over a year (704 E. Grand Ave) and is directly across the street from the east border of Palomar Heights.

The only way I would consider another speculative investment in downtown Escondido, and I know for a fact this sentiment is shared by others, is if the positive momentum of retail renovation is able to regain traction from the COVID meltdown and mature into the stabilized submarket that it is destined to be where one can Live/Work/Eat/Play. The only way that is going to happen is for more jobs and homes to increase foot traffic to this treasure of a community. I can't stress enough how important it is to see the Palomar Heights project approved ASAP. That news alone will be a powerful source of hope for those who have paved the way and for the many who have recently invested their hearts and souls, if not their life savings, to stay the course and not give up on opening or keeping open a most vital part of Downtown Escondido.

Please join me in support of the Palomar Heights project.



Matthew D. Belshin
Managing Member
704 E. Grand Ave., LLC
Del Mar, Ca 92014

June 22, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Re: Palomar Heights Project

I would like to express my support for the Palomar Heights project and ask the City Council to approve this project.

As a commercial broker and having experience in Escondido I have a particular interest in the redevelopment of the old hospital and the revitalization of downtown. Palomar Heights will bring economic vitality to downtown and more particularly this part of Grand Avenue and to the east. I think the 510 residential unit plan with a mix of apartments and for sale housing will greatly benefit the city and the downtown merchants and surrounding property owners. Further, this project would help meet the increasing housing demand that the city faces.

Sincerely,

A handwritten signature in black ink, appearing to read 'Alex Jize', with a long horizontal flourish extending to the right.

Alex Jize
Voit Commercial

June 22, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Re: Palomar Heights Project

I would like to express my support for the Palomar Heights project and ask the City Council to approve this project.

As a commercial broker having experience in Escondido, I have a particular interest in the redevelopment of the old hospital and the revitalization of downtown. Palomar Heights will bring economic vitality to downtown and more particularly this part of Grand Avenue and to the east. As a nearby property owner, I also believe strongly that the 510 residential unit plan with a mix of apartments, and for sale housing will greatly benefit the city, downtown merchants, and surrounding property owners.

Further, this project would help meet the increasing housing demand that the city faces, and provide hundreds of new residents with vested interest in success of downtown Escondido.

Sincerely,

Industrial Management Company



Brandon Keith
President

August 24, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Honorable Mayor and Councilmembers:

The City of Escondido has a tremendous opportunity to further its mission of planning for more vitality and vibrancy in the downtown area by approving the Palomar Heights project. Today, I would like to pledge my support for Palomar Heights.

The current design features 510 residential units, 10,000 square feet of commercial space and numerous community and resident benefits. Palomar Heights has been carefully crafted to complement businesses like mine and generate the much-needed foot traffic to our downtown corridor, helping our businesses to thrive. In this unpredictable phase all of us are uncertain of what the future holds. The time is now to be united in our support for operators like Palomar Heights who are willing to invest in our city so we can flourish for years to come.

Furthermore, as a business owner of Escondido, I know first-hand the challenges we face with housing shortages, particularly with for-sale units. This project would significantly contribute to our city's housing supply. From age-targeted senior housing, to for-sale townhomes and apartments for rent Palomar Heights will invite a diverse population into our community to enliven downtown throughout the day and into the night.

This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,

Cheryl Engdahl

Cheryl Engdahl

Covington & Associates
140 N. Escondido Blvd.
Escondido, CA 92025



P: (626) 381-9248
F: (626) 389-5414
E: mitch@mitchtsailaw.com

Mitchell M. Tsai
Attorney At Law

155 South El Molino Avenue
Suite 104
Pasadena, California 91101

VIA U.S. MAIL & E-MAIL

September 22, 2020

City of Escondido Planning Commission
201 North Broadway
City Hall Council Chambers
Escondido, CA 92025

Adam Finestone, Principal Planner
City of Escondido
201 North Broadway
Escondido, CA 92025

Em: palomarheights@escondido.org

RE: Agenda Item No. 2, GENERAL PLAN AMENDMENT, SPECIFIC PLAN AMENDMENT, DENSITY TRANSFER AGREEMENT, PLANNED DEVELOPMENT PERMIT (MASTER AND PRECISE DEVELOPMENT PLAN), SPECIFIC ALIGNMENT PLANS, GRADING EXEMPTIONS, TENTATIVE SUBDIVISION MAP; AND NON-EMERGENCY DEMOLITION PERMIT; ENVIRONMENTAL IMPACT REPORT – SUB 18-0011, PHG 18-0049, and ENV 18-0009 (SCH No. 2019059013)

Dear Honorable Commissioners and Mr. Finestone,

On behalf of Southwest Regional Council of Carpenters (“**Commenter**” or “**Southwest Carpenters**”), my Office is submitting these comments on the City of Escondido’s (“**City**” or “**Lead Agency**”) Final Environmental Impact Report (“**FEIR**”) (SCH No. 2019059013) for the Palomar Heights Project (“**Project**”).

The Southwest Carpenters is a labor union representing 50,000 union carpenters in six states and has a strong interest in well ordered land use planning and addressing the environmental impacts of development projects.

Individual members of the Southwest Carpenters live, work and recreate in the City and surrounding communities and would be directly affected by the Project’s environmental impacts.

Commenters expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

Commenters expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

Commenters incorporates by reference all comments raising issues regarding the EIR submitted prior to certification of the EIR for the Project. *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal. App. 4th 173, 191 (finding that any party who has objected to the Project’s environmental documentation may assert any issue timely raised by other parties).

Moreover, Commenter requests that the Lead Agency provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (“**CEQA**”), Cal Public Resources Code (“**PRC**”) § 21000 *et seq*, and the California Planning and Zoning Law (“**Planning and Zoning Law**”), Cal. Gov’t Code §§ 65000–65010. California Public Resources Code Sections 21092.2, and 21167(f) and Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency’s governing body.

The City should seriously consider proposing that the Applicant provide additional community benefits such as requiring local hire and paying prevailing wages to benefit the City. Moreover, it would be beneficial for the City to require the Applicant to hire workers: (1) who have graduated from a Joint Labor Management apprenticeship training program approved by the State of California, or have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state approved apprenticeship training program and; (2) who are registered apprentices in an apprenticeship training program approved by the State of California.

In addition, the City should require the Project to be built to standards exceeding the current 2019 California Green Building Code and 2020 County of Los Angeles Green

Building Standards Code to mitigate the Project’s environmental impacts and to advance progress towards the State of California’s environmental goals.

I. EXPERTS

This comment letter includes comments from air quality and greenhouse gas experts Matt Hagemann, P.G., C.Hg. and Paul Rosenfeld, Ph.D. concerning the DEIR. Their comments, attachments, and Curriculum Vitae (“CV”) are attached hereto and are incorporated herein by reference.

Matt Hagemann, P.G., C.Hg. (“Mr. Hagemann”) has over 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA’s Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Mr. Hagemann also served as Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closer. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring.

For the past 15 years, Mr. Hagemann has worked as a founding partner with SWAPE (Soil/Water/Air Protection Enterprise). At SWAPE, Mr. Hagemann has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality, and greenhouse gas emissions.

Mr. Hagemann has a Bachelor of Arts degree in geology from Humboldt State University in California and a Masters in Science degree from California State University Los Angeles in California.

Paul Rosenfeld, Ph.D. (“Dr. Rosenfeld”) is a principal environmental chemist at SWAPE. Dr. Rosenfeld has over 25 years’ experience conducting environmental investigations and risk assessments for evaluating impacts on human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risks, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks,

storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particular matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants, Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Dr. Rosenfeld has a Ph.D. in soil chemistry from the University of Washington, M.S. in environmental science from U.C. Berkeley, and B.A. in environmental studies from U.C. Santa Barbara.

To summarize Dr. Rosenfeld's and Mr. Hagemann's comments, the EIR for this Project is deficient in numerous respects relating to its Air Quality and Greenhouse Gas emissions analyses¹:

Air Quality Analysis Deficiencies

- Unsubstantiated input parameters used to estimate project emissions;
 - Failure to model all proposed land uses;
 - Unsubstantiated reduction to default CO₂ intensity factor;
 - Use of underestimated operational vehicle trip rates;
 - Unsubstantiated changes to architectural coating emission factors;
 - Failure to include all required demolition;
 - Incorrect application of construction-related mitigation measures;

¹ See Hagemann and Rosenfeld (SWAPE) comments attached hereto as Exhibit C.

- Incorrect application of waste-related mitigation measure; and
- Diesel particulate matter health risk emissions were inadequately evaluated.

Greenhouse Gas Emissions Analysis Deficiencies

- Failure to adequately evaluate greenhouse gas impacts;
 - Incorrect and unsubstantiated quantitative analysis of emissions;
 - Incorrect reliance on City’s E-CAP;
 - Incorrect reliance on SANDAG’s RTP Plan and CARB’s Scoping Plan which are not qualified GHG Reduction Plans;
 - Failure to demonstrate consistency with SANDAG’s RTP Plan; and
 - Failure to demonstrate consistency with CARB’s Scoping Plan.

II. THE CITY SHOULD CONTINUE THIS ITEM UNTIL THE CITY PLANNING COMMISSION MAY HEAR LIVE COMMENTS, TELEPHONICALLY OR IN PERSON, FROM THE PUBLIC

We ask the City to continue consideration of the Project until the City is able to adopt teleconferencing procedures that allow the public to participate and speak on items directly to the City Planning Commission during live meetings.

The Brown Act already contains provisions for conducting public meetings by teleconferencing and video conferencing. Under the Brown Act, “[T]he **legislative body of a local agency may use teleconferencing** for the benefit of the public and the legislative body of a local agency in connection with any meeting or proceeding authorized by law.”(Gov. Code § 54953(b)(1).) The Brown Act defines “teleconference” as “a meeting of a legislative body, the members of which are in different locations, connected by **electronic means, through either audio or video, or both.**” (Gov. Code § 54953(b)(4).)

When a local agency uses teleconferencing, the Brown Act requires that the teleconference information be available in the meeting agenda and that the teleconference be accessible to the public. (Gov. Code § 54953(b)(3).) Importantly, the Brown Act further requires that the agenda “**provide an opportunity for members of the public to address the legislative body directly pursuant to Section 54954.3 at each teleconference location.**” (Gov. Code § 54953(b)(3).) The above requirement of section 54953(b)(3) of the Brown Act allows for the use of teleconferencing to satisfy the requirements of section 54954.3 that members of the public have the opportunity to comment on an agenda item either before or during a

meeting. (Gov. Code § 54954.3(a) [“Every agenda for regular meetings shall provide an opportunity for members of the public to directly address the legislative body on any item of interest to the public, before or during the legislative body’s consideration of the item.”].) As such, any public meeting conducted by teleconference but does not allow for public comment during the meeting is in violation of the Brown Act.

The Brown Act does contain emergency provisions—however, none of these provisions provide for prohibiting public comment during a meeting.

First, the Brown Act allows public meetings in certain emergency circumstances with limited (one-hour) or no prior notice. (Gov. Code § 54956.5.) Second, the Brown Act contains authority allowing action on items not included on a posted regular agenda in certain emergency situations. (Gov. Code § 54954.2(b)(2).) Lastly, in certain emergency situations, the Brown Act allows for a public meeting location to change without notice as long as local media is notified “by the most rapid means of communication available at the time.” (Gov. Code § 54954(e).)

Notably, the emergency provisions above in the Brown Act pertain only to notice, location, and agency action. No provision of the Brown Act contemplates abrogating the public’s right to provide comment during a public meeting either in-person or, if necessary, by teleconferencing or video conferencing. (See Cal. Gov. Code §§ 54953(b)(1), (b)(3), (b)(4).)

Even if Governor Newsom’s March 17 EO and March 21 EO were valid under the California Constitution as to the Brown Act, a local agency which does not permit public comment during a public meeting fails to comply with those orders. The March 17 EO explicitly states:

All state and local bodies are urged to use sound discretion and to make reasonable efforts to **adhere as closely as reasonably possible to the provisions of the Bagley-Keene Act and the Brown Act**, and other applicable local laws regulating the conduct of public meetings, **in order to maximize transparency and provide the public access to their meetings.** (March 17 EO, p. 4.)

Many municipalities are making public comment during teleconferenced meetings possible, which shows that adherence to the Brown Act provisions discussed above is possible during the COVID-19 state of emergency. For example, the Cities of San Francisco, Los Angeles, and other cities allow members of the public to directly

address the decision-making body through Zoom or other teleconference service during the virtual meeting. Thus, any local agency which does not provide for public comment during a public meeting—teleconferenced or otherwise—is in violation of the California Constitution, article I, section 3(b)(7) and the Brown Act as well as in violation of Governor Newsom’s executive orders.

For the above reasons, we request that the City continue consideration of the Project until after the lifting of the COVID-19 State of Emergency to allow full public participation and full compliance with the Brown Act and the California Constitution.

III. **THE PROJECT WOULD BE APPROVED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

A. Background Concerning the California Environmental Quality Act

CEQA has two basic purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. 14 California Code of Regulations (“**CCR**” or “**CEQA Guidelines**”) § 15002(a)(1).² “Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR ‘protects not only the environment but also informed self-government.’ [Citation.]” *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564. The EIR has been described as “an environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.” *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm’rs.* (2001) 91 Cal. App. 4th 1344, 1354 (“*Berkeley Jets*”); *County of Inyo v. Yorty* (1973) 32 Cal. App. 3d 795, 810.

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures. CEQA Guidelines § 15002(a)(2) and (3). *See also, Berkeley Jets*, 91 Cal. App. 4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Ass’n v.*

² The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 150000 et seq, are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. (Cal. Pub. Res. Code § 21083.) The CEQA Guidelines are given “great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous.” *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal. 4th 204, 217.

Regents of the University of California (1988) 47 Cal.3d 376, 400. The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to “identify ways that environmental damage can be avoided or significantly reduced.” CEQA Guidelines § 15002(a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has “eliminated or substantially lessened all significant effects on the environment where feasible” and that any unavoidable significant effects on the environment are “acceptable due to overriding concerns” specified in CEQA section 21081. CEQA Guidelines § 15092(b)(2)(A–B).

While the courts review an EIR using an “abuse of discretion” standard, “the reviewing court is not to ‘uncritically rely on every study or analysis presented by a project proponent in support of its position.’ A ‘clearly inadequate or unsupported study is entitled to no judicial deference.’” *Berkeley Jets*, 91 Cal.App.4th 1344, 1355 (emphasis added) (quoting *Laurel Heights*, 47 Cal.3d at 391, 409 fn. 12). Drawing this line and determining whether the EIR complies with CEQA’s information disclosure requirements presents a question of law subject to independent review by the courts. (*Sierra Club v. Cnty. of Fresno* (2018) 6 Cal. 5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131.) As the court stated in *Berkeley Jets*, 91 Cal. App. 4th at 1355:

A prejudicial abuse of discretion occurs “if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process.

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. The EIR’s function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Communities for a Better Environment v. Richmond* (2010) 184 Cal. App. 4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449–450).

B. CEQA Requires Revision and Recirculation of an Environmental Impact Report When Substantial Changes or New Information Comes to Light

Section 21092.1 of the California Public Resources Code requires that “[w]hen significant new information is added to an environmental impact report after notice has been given pursuant to Section 21092 ... but prior to certification, the public agency shall give notice again pursuant to Section 21092, and consult again pursuant to Sections 21104 and 21153 before certifying the environmental impact report” in order to give the public a chance to review and comment upon the information. CEQA Guidelines § 15088.5.

Significant new information includes “changes in the project or environmental setting as well as additional data or other information” that “deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative).” CEQA Guidelines § 15088.5(a). Examples of significant new information requiring recirculation include “new significant environmental impacts from the project or from a new mitigation measure,” “substantial increase in the severity of an environmental impact,” “feasible project alternative or mitigation measure considerably different from others previously analyzed” as well as when “the draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.” *Id.*

An agency has an obligation to recirculate an environmental impact report for public notice and comment due to “significant new information” regardless of whether the agency opts to include it in a project’s environmental impact report. *Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal.App.4th 74, 95 [finding that in light of a new expert report disclosing potentially significant impacts to groundwater supply “the EIR should have been revised and recirculated for purposes of informing the public and governmental agencies of the volume of groundwater at risk and to allow the public and governmental agencies to respond to such information.”]. If significant new information was brought to the attention of an agency prior to certification, an agency is required to revise and recirculate that information as part of the environmental impact report.

Here, the comments on the DEIR and subsequent changes to the FEIR reveal both significant new information as well as the fundamental basic inadequacy and conclusory nature of the EIR. First, the project description in the FEIR’s project

approvals was amended to include a request in a planned development permit for a density transfer credit from the City’s Density Transfer Program. This approval is necessary in order to increase the density greater than 75 dwelling units per acre for the proposed senior housing component of the Project west of Valley Boulevard. Furthermore, the FEIR’s project description also significantly differs from the DEIR because the open space square footage was amended, the number of types of units was amended, and significant additions or changes were made to the project utilities and demolition and grading portions of the project.

Second, Commenters’ previous comments and the expert comments raised herein constitute significant new information. Notably, the EIR’s air quality and GHG analyses are severely flawed. The EIR underestimates project emissions, fails to disclose a potentially significant air quality impact relating to health risks from air pollution generated by the project, and the EIR fails to demonstrate a less than significant impact relating to GHG emissions. The EIR’s GHG analysis inaptly relies on consistency with Escondido’s E-CAP when it is not consistent with that plan, the E-CAP is in any event outdated and consistency cannot demonstrate a less than significant impact, and consistency claims with CARB’s Scoping Plan and SANDAG’s RTP Plan fail because, among other reasons, those plans do not qualify as CAPs under CEQA.

As such, the Project’s EIR should be revised and recirculated.

C. Due to the COVID-19 Crisis, the City Must Adopt a Mandatory Finding of Significance that the Project May Cause a Substantial Adverse Effect on Human Beings and Mitigate COVID-19 Impacts

CEQA requires that an agency make a finding of significance when a Project may cause a significant adverse effect on human beings. PRC § 21083(b)(3); CEQA Guidelines § 15065(a)(4).

Public health risks related to construction work requires a mandatory finding of significance under CEQA. Construction work has been defined as a Lower to High-risk activity for COVID-19 spread by the Occupational Safety and Health Administration. Recently, several construction sites have been identified as sources of community spread of COVID-19.³

³ Santa Clara County Public Health (June 12, 2020) COVID-19 CASES AT CONSTRUCTION SITES HIGHLIGHT NEED FOR CONTINUED VIGILANCE IN

SWRCC recommends that the Lead Agency adopt additional CEQA mitigation measures to mitigate public health risks from the Project's construction activities. SWRCC requests that the Lead Agency require safe on-site construction work practices as well as training and certification for any construction workers on the Project Site.

In particular, based upon SWRCC's experience with safe construction site work practices, SWRCC recommends that the Lead Agency require that while construction activities are being conducted at the Project Site:

Construction Site Design:

- The Project Site will be limited to two controlled entry points.
- Entry points will have temperature screening technicians taking temperature readings when the entry point is open.
- The Temperature Screening Site Plan shows details regarding access to the Project Site and Project Site logistics for conducting temperature screening.
- A 48-hour advance notice will be provided to all trades prior to the first day of temperature screening.
- The perimeter fence directly adjacent to the entry points will be clearly marked indicating the appropriate 6-foot social distancing position for when you approach the screening area. Please reference the Apex temperature screening site map for additional details.
- There will be clear signage posted at the project site directing you through temperature screening.
- Provide hand washing stations throughout the construction site.

Testing Procedures:

- The temperature screening being used are non-contact devices.

- Temperature readings will not be recorded.
- Personnel will be screened upon entering the testing center and should only take 1-2 seconds per individual.
- Hard hats, head coverings, sweat, dirt, sunscreen or any other cosmetics must be removed on the forehead before temperature screening.
- Anyone who refuses to submit to a temperature screening or does not answer the health screening questions will be refused access to the Project Site.
- Screening will be performed at both entrances from 5:30 am to 7:30 am.; main gate [ZONE 1] and personnel gate [ZONE 2]
- After 7:30 am only the main gate entrance [ZONE 1] will continue to be used for temperature testing for anybody gaining entry to the project site such as returning personnel, deliveries, and visitors.
- If the digital thermometer displays a temperature reading above 100.0 degrees Fahrenheit, a second reading will be taken to verify an accurate reading.
- If the second reading confirms an elevated temperature, DHS will instruct the individual that he/she will not be allowed to enter the Project Site. DHS will also instruct the individual to promptly notify his/her supervisor and his/her human resources (HR) representative and provide them with a copy of Annex A.

Planning

- Require the development of an Infectious Disease Preparedness and Response Plan that will include basic infection prevention measures (requiring the use of personal protection equipment), policies and procedures for prompt identification and isolation of sick individuals, social distancing (prohibiting gatherings of no more than 10 people including all-hands meetings and all-hands

lunches) communication and training and workplace controls that meet standards that may be promulgated by the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health or applicable local public health agencies.⁴

The United Brotherhood of Carpenters and Carpenters International Training Fund has developed COVID-19 Training and Certification to ensure that Carpenter union members and apprentices conduct safe work practices. The Agency should require that all construction workers undergo COVID-19 Training and Certification before being allowed to conduct construction activities at the Project Site.

D. The EIR Fails to Main a Stable and Finite Project Description

“[A]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient” environmental document. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal. App. 3d 185, 200.) “A curtailed or distorted project description may stultify the objectives of the reporting process” as an accurate, stable and finite project description is necessary to allow “affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. (*Id.* at 192 – 93.) Courts determine *de novo* whether an agency proceeded “in a manner required by law” in maintaining a stable and consistent project description. (*Id.* at 200.)

The EIR failed to maintain a stable and finite project description during the CEQA process. Major changes were made to the Project’s proposed approvals, land uses, utilities, circulation and access and demolition, grading and construction.

The FEIR’s project description was amended to modify both the Project’s land use approvals and the Project itself to include a density transfer credit from the City’s Density Transfer Program in order to increase the permitted density on the Project to

⁴ See also The Center for Construction Research and Training, North America’s Building Trades Unions (April 27 2020) NABTU and CPWR COVIC-19 Standards for U.S Constructions Sites, available at https://www.cpw.com/sites/default/files/NABTU_CPWR_Standards_COVID-19.pdf; Los Angeles County Department of Public Works (2020) Guidelines for Construction Sites During COVID-19 Pandemic, available at https://dpw.lacounty.gov/building-and-safety/docs/pw_guidelines-construction-sites.pdf.

greater than 75 dwelling units per acre for the proposed senior housing component of the Project west of Valley Boulevard and a grading exemption as well as the open space and the type of residential units to be built for the Project, depriving the public of an opportunity to comment upon the Project's significantly modified land use analysis. (FEIR at 2-10 – 2-13.)

Furthermore, the FEIR's modified the Project's project utilities, adding large additional sewage facilities that had not been previously described or analyzed in the Project's alternatives. (FEIR at 2-7.) In addition, the FEIR modified the demolition and grading that will be required to build the Project, modifications that the FEIR itself acknowledges significantly modifies the Project's aesthetic impacts. (FEIR at 2-13.) The Project failed to maintain a stable and consistent project description through its CEQA process.

E. The EIR's Mitigation Measures for Archaeological and Human Remains are Impermissibly Vague, and Defer Critical Details

The DEIR improperly deferred critical details of mitigation measures and the FEIR's response to comments fails to cure the EIR's defects. Feasible mitigation measures for significant environmental effects must be set forth in an EIR for consideration by the lead agency's decision makers and the public before certification of the EIR and approval of a project. The formulation of mitigation measures generally cannot be deferred until after certification of the EIR and approval of a project. CEQA Guidelines § 15126.4(a)(1)(B) ("...[f]ormulation of mitigation measures should not be deferred until some future time.").

Deferring critical details of mitigation measures undermines CEQA's purpose as a public information and decision-making statute. "[R]eliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decisionmaking; and[,] consequently, these mitigation plans have been overturned on judicial review as constituting improper deferral of environmental assessment." *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal. App. 4th 70, 92 ("*Communities*"). As the Court noted in *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307, "[a] study conducted after approval of a project will inevitably have a diminished influence on decision-making. Even if the study is subject to administrative approval, it is analogous to the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA."

A lead agency's adoption of an EIR's proposed mitigation measure for a significant environmental effect that merely states a “generalized goal” to mitigate a significant effect without committing to any specific criteria or standard of performance violates CEQA by improperly deferring the formulation and adoption of enforceable mitigation measures. *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 670; *Communities*, 184 Cal.App.4th at 93 (“EIR merely proposes a generalized goal of no net increase in greenhouse gas emissions and then sets out a handful of cursorily described mitigation measures for future consideration that might serve to mitigate the [project's significant environmental effects.”); cf. *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1028-1029 (upheld EIR that set forth a range of mitigation measures to offset significant traffic impacts where performance criteria would have to be met, even though further study was needed and EIR did not specify which measures had to be adopted by city).].

The DEIR identified potentially significant impacts to archaeological and human remains relating to the latent discovery of either human remains or archaeological resources, and has proposed mitigation measure M-CR-2. (DEIR, p. 4.2-30.) However, the DEIR’s proposal with respect to tribal human remains was inadequate because it omitted critical details and deferred them for development at a later date. The DEIR noted that the City’s Planning Division recommended that the Applicant enter into a Tribal Cultural Resource Treatment and Monitoring Agreement prior to the issuance of a grading permit so that protocols and procedures could be formed for the discovery and protection of Native American human remains or related archaeological resources. However, the DEIR failed to propose a plan and included no details as to what may be included in such a plan to mitigate this impact. This is an impermissible deferral of mitigation. Subsequent mitigation measures were also based upon the formulation of a future Agreement, including M-CR-3 and M-CR-4.

The FEIR fails to cure these defects. Although M-CR-2 (now M-CR-6) was revised, it still fails to specify any performance standard or details of any agreement with the Tribal Cultural Resource. The FEIR vaguely speculates what could be included in a future agreement, but fails to include any additional details.

F. The EIR Fails to Support Its Thresholds of Significance and Findings with Substantial Evidence and Omits Information

When new information is brought to light showing that an impact previously discussed in the DEIR but found to be insignificant with or without mitigation in the DEIR’s

analysis has the potential for a significant environmental impact supported by substantial evidence, the EIR must consider and resolve the conflict in the evidence. See *Visalia Retail, L.P. v. City of Visalia* (2018) 20 Cal. App. 5th 1, 13, 17; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, 1109. While a lead agency has discretion to formulate standards for determining significance and the need for mitigation measures—the choice of any standards or thresholds of significance must be “based to the extent possible on scientific and factual data and an exercise of reasoned judgment based on substantial evidence. CEQA Guidelines § 15064(b); *Cleveland Nat'l Forest Found. v. San Diego Ass'n of Gov'ts* (2017) 3 Cal. App. 5th 497, 515; *Mission Bay Alliance v. Office of Community Inv. & Infrastructure* (2016) 6 Cal. App. 5th 160, 206. And when there is evidence that an impact could be significant, an EIR cannot adopt a contrary finding without providing an adequate explanation along with supporting evidence. *East Sacramento Partnership for a Livable City v. City of Sacramento* (2016) 5 Cal. App. 5th 281, 302.

In addition, a determination that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effect of regulatory compliance. In *Californians for Alternatives to Toxics v. Department of Food & Agric.* (2005) 136 Cal. App. 4th 1, the court set aside an EIR for a statewide crop disease control plan because it did not include an evaluation of the risks to the environment and human health from the proposed program but simply presumed that no adverse impacts would occur from use of pesticides in accordance with the registration and labeling program of the California Department of Pesticide Regulation. See also *Ebbetts Pass Forest Watch v Department of Forestry & Fire Protection* (2008) 43 Cal. App. 4th 936, 956 (fact that Department of Pesticide Regulation had assessed environmental effects of certain herbicides in general did not excuse failure to assess effects of their use for specific timber harvesting project).

Finally, CEQA requires that an environmental document identify and discuss the significant effects of a Project, alternatives and how those significant effects can be mitigated or avoided. CEQA Guidelines § 15126.2; PRC §§ 21100(b)(1), 21002.1(a). A Court “[w]hen reviewing whether a discussion is sufficient to satisfy CEQA, . . . the EIR (1) includes sufficient detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues the proposed project raises [citation omitted], and (2) makes a reasonable effort to substantively connect a project's air quality impacts to likely health consequences.” *Sierra Club v.*

County of Fresno (2018) 6 Cal. 5th 502, 510 (citing *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 405); *see also* PRC §§ 21002.1(e), 21003(b). The Court may determine whether a CEQA environmental document sufficiently discloses information required by CEQA *de novo* as “noncompliance with the information disclosure provisions” of CEQA is a failure to proceed in a manner required by law. PRC § 21005(a); *see also Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502, 515.

1. *The EIR Fails to Support its Findings on Greenhouse Gas Impacts with Substantial Evidence.*

CEQA Guidelines § 15064.4 allow a lead agency to determine the significance of a project’s GHG impact via a qualitative analysis (e.g., extent to which a project complies with regulations or requirements of state/regional/local GHG plans), and/or a quantitative analysis (e.g., using model or methodology to estimate project emissions and compare it to a numeric threshold). So too, CEQA Guidelines allow lead agencies to select what model or methodology to estimate GHG emissions so long as the selection is supported with substantial evidence, and the lead agency “should explain the limitations of the particular model or methodology selected for use.” CEQA Guidelines § 15064.4(c).

The DEIR relied on consistency with the City of Escondido’s Climate Action Plan (“CAP”) in determining that the Project’s GHG impacts were less than significant. (DEIR, Appendix M, p. 31.) The DEIR conducted a qualitative analysis on GHG emissions in its GHG Impact Analysis and considered the Project’s consistency with SANDAG’s San Diego Forward Regional Plan and CARB’s 2008 and 2017 Scoping Plans.

Regarding the Project, the DEIR concluded that the Project’s GHG emissions will be less than significant primarily based on its consistency with the CAP because the Project achieves the numerical threshold set out in the CAP. However, as discussed below, the DEIR’s analysis of GHG impacts was inadequate because: 1) it relied on consistency with a CAP that is not compliant with CEQA; and 2) it relied on consistency with a CAP that may not be monitored or enforced by the City.

CEQA Guidelines sections 15064.4(b)(3) and 15183.5(b) allow a lead agency to consider a project’s consistency with regulations or requirements adopted to

implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

However, a lead agency under CEQA is only allowed to determine if a project's incremental contribution to cumulative greenhouse gas emissions are not significant based upon a consistency with a statewide, regional or local plan that:

- (1) **Inventory:** Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities (e.g., projects) within a defined geographic area (e.g., lead agency jurisdiction);
- (2) **Establish GHG Reduction Goal:** Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
- (3) **Analyze Project Types:** Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- (4) **Craft Performance Based Mitigation Measures:** Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level; and
- (5) **Monitoring:** Establish a mechanism to monitor the CAP progress toward achieving said level and to require amendment if the plan is not achieving specified levels.

Collectively, a proper CAP ties qualitative measures to quantitative results, which in turn become binding via proper monitoring and enforcement by the jurisdiction—all resulting in real GHG reductions for the jurisdiction as a whole, and the substantial evidence that the incremental contribution of an individual project is not cumulatively considerable.

The DEIR failed to demonstrate that the CAP includes the above-listed requirements to be considered a qualified CAP for the City. As such, the DEIR left an analytical gap showing that compliance with said plans can be used for a project-level significance determination for the Project. The EIR's GHG analysis cannot be relied

upon to determine Project significance because FEIR fails to rectify any of these defects in its GHG analysis. The EIR still relies on consistency with an outdated CAP which does not demonstrate compliance with SB 32’s targets beyond 2020, and there is no evidence the City monitors or enforces its CAP based on its response which failed to address this concern completely.

- i. *The FEIR Impermissibly Attempts to Rely on Its Consistency Analysis with SANDAG’s RTP Plan and CARB’s 2017 Scoping Plan.*

The FEIR’s attempt to pivot out of its faulty CAP consistency analysis by claiming that the Project DEIR also claimed consistency with SANDAG’s RTP and CARB’s 2017 Scoping Plan is likewise inapt and not supported by substantial evidence for similar reasons the City’s CAP argument failed—SANDAG’s 2015 RTP Plan and CARB’s 2017 Scoping Plan are not qualified CAPs either. As iterated above, a qualified CAP must include the five above-listed requirements.

The DEIR also cannot rely on consistency with CARB’s Scoping Plan because the DEIR did not explain how that plan’s action or strategies applies to local projects or what project-specific measures are included in that plan that were designed to apply here. CARB’s Scoping Plan is a state level action and plan and is not specific to local land use projects, thus the DEIR cannot rely on that Plan for its GHG analysis pursuant to CEQA Guidelines 15064(h)(3).

Furthermore, with respect to reliance on consistency with SANDAG’s RTP Plan—the DEIR’s analysis is limited to consistency with generic and non-binding goals of the RTP (GHG Analysis, 32-34.) It is not clear what the RTP requires in order for a project to claim consistency with its goals or strategies, and a qualified GHG plan must include specific and binding requirements that lessen GHG emissions.⁵

⁵ Natural Resources Agency (Nov. 2018) Final Statement of Reasons For Regulatory Action: Amendments To The State CEQA Guidelines (“2018 Final Statement of Reason”), p. 19 (adding reference to section 15183.5 to section 15064.4(b)(3) because it was “needed to clarify that lead agencies may rely on plans prepared pursuant to section 15183.5 in evaluating a project’s greenhouse gas emissions[,] ... [which] is consistent with the Agency’s Final Statement of Reasons for the addition of section 15064.4, which states that ‘proposed section 15064.4 is intended to be read in conjunction with . . . proposed section 15183.5. Those sections each indicate that local and regional plans may be developed to reduce GHG emissions.’”), http://resources.ca.gov/ceqa/docs/2018_CEQA_Final_Statement_of%20Reasons_111218.pdf; see also Natural Resources

Finally, the City of Escondido plainly developed and implemented a Climate Action Plan, adopted on December 4, 2013, for the purpose using it to streamline CEQA GHG analyses and reduction requirements under the City’s General Plan. (See Escondido CAP, p. 1-3, sec. 1.2, Goals.) The City cannot now forego consistency with the CAP for its GHG Impact Analysis under the requirements of the CEQA Guidelines.

- ii. *The FEIR Does Not Meaningfully Respond to Commenters’ Concerns that the Escondido CAP is Outdated and Not Based on SB 32.*

The FEIR’s responses to comments failed to address commenter’s concerns that the Escondido CAP is not based on the emissions reductions requirements of SB 32. Instead, the FEIR merely states that because the EIR is consistent with CARB’s Scoping Plan, it is also consistent with SB 32’s goals. This misses the point. And in any event, the EIR cannot rely upon consistency with CARB’s Scoping Plan for its GHG Analysis as indicated above.

As previously iterated in the commenter’s concerns in its DEIR comment letter, the CAP for the City of Escondido was adopted on December 4, 2013,

Agency (Dec. 2009) Final Statement of Reasons for Regulatory Action (“2009 Final Statement of Reason”), p. 27 (“Those sections each indicate that local and regional plans may be developed to reduce GHG emissions. If such plans reduce community-wide emissions to a level that is less than significant, a later project that complies with the requirements in such a plan may be found to have a less than significant impact.”), http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf; 2009 Final Statement of Reason, pp. 14-17 (To qualify, the plan “must ... include binding requirements to address a cumulative problem[;] ... such plans contain specific requirements with respect to resources that are within the agency’s jurisdiction to avoid or substantially lessen the agency’s contributions to GHG emissions ... consistency with plans that are purely aspirational (i.e., those that include only unenforceable goals without mandatory reduction measures), and provide no assurance that emissions within the area governed by the plan will actually address the cumulative problem[;] ... by requiring that lead agencies draw a link between the project and the specific provisions of a binding plan or regulation, section 15064(h)(3) would ensure that cumulative effects of the project are actually addressed by the plan or regulation in question.”) 35 SCAG (Dec. 2015) 2016 RTP/SCS Program EIR (“PEIR”), p. 3.8-12 – 3.8-13 (“SB 375 provides that the SCS developed as part of the RTP does not regulate the use of land or dictate local land use policies, and further expressly provides that a city’s or county’s land use policies and regulations, including its general plan, are not required to be consistent with the SCS. Rather, SB 375 is intended to provide a regional policy foundation that local government may build upon, if they so choose.” Emphasis added), http://scagrtpscs.net/Documents/2016/peir/draft/2016dPEIR_3_8_Greenhouse_Gases.pdf.

and designed to reduce GHG emissions consistent with “the state’s adopted AB 32 GHG reduction target...to reduce emissions back to 1990 levels by the year 2020.”⁶ The goal of the CAP then is to “[r]educe emissions attributable to Escondido to levels at or below 1990 GHG emissions by year 2020 consistent with the target reductions of AB 32.”⁷ Compliance with the CAP then allows future development projects within Escondido to streamline their GHG analysis under CEQA by comparing a project to the CAP requirements.

However, AB 32 was superseded by SB 32 in 2016. AB 32 enshrined the first two goals of Executive Order S-03-05 into law and directed the California Air Resources Board (CARB) to develop a "Scoping Plan" that describes how the state will achieve its emission reduction targets. SB 32 added the target for 2030 announced in Executive Order B-30-15 (to reduce emissions 40 percent below 1990 levels) and required CARB to make corresponding updates to the Scoping Plan. (Health & Safety Code § 38566.)

CARB’s 2017 Scoping Plan, based upon SB 32 targets, calls for “[s]ufficiently detailed and adequately supported GHG reduction plans (including CAPs)...[that] provide local governments with a valuable tool for streamlining project-level environmental review.”⁸ CARB’s 2017 Scoping Plan calls for adequate local CAPs upon which adequate CEQA GHG analysis may be based according to CEQA Guidelines § 15183.5, sub. (b).⁹

The Project claims consistency with the Escondido CAP based on its screening threshold of 2,500 CO₂e, but that threshold was only adopted to meet the goals of AB 32—not SB 32 whose targets intend to further increase GHG emission reductions beyond 2020. SB 32’s current targets are to reduce emissions by an additional 40% below 1990 levels by 2030¹⁰, thus the Project cannot be said to have a less than significant impact relating to GHG emissions based upon consistency with a CAP that does not comply with SB 32 targets.

⁶ City of Escondido Climate Action Plan, S-2, <https://www.escondido.org/Data/Sites/1/media/PDFs/Planning/ClimateActionPlan/AdoptedClimateActionPlan.pdf>.

⁷ *Id.* at 1-3.

⁸ CARB (Nov. 2017) California’s 2017 Climate Change Scoping Plan at 101, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

⁹ California Air Resources Board (CARB), Assembly Bill 32 Overview, <https://ww3.arb.ca.gov/cc/ab32/ab32.htm>.

¹⁰ CARB 2017 Scoping Plan at ES6, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

The DEIR’s compliance with the CAP, and conclusion of a less than significant GHG impact based on compliance with an outdated CAP, is therefore unsupported by substantial evidence. The City should revise the EIR and explain how the Project complies with SB 32 and the new GHG reduction targets to further reduce GHG emissions beyond 2020.

- iii. *The FEIR Does Not Adequately Respond to Commenter’s Concerns That There is No Evidence the CAP is Monitored or Enforced by the City.*

The FEIR does not adequately respond to commenter’s concerns that the City’s CAP cannot qualify as a CAP because there is no evidence it is monitored or enforced by the City. (FEIR, 11-56~7.) The FEIR merely dismisses this comment in acknowledgement that it was made but does not comment on the EIR. This is incorrect and misses the point. Again, the DEIR incorrectly relied upon consistency with the CAP because the CAP is defective for non-enforcement. The City misunderstands commenter’s concerns as to the CAP but it is still required to respond nonetheless. If the CAP does not qualify, the City cannot rely on its consistency analysis with said CAP.

As previously iterated in the commenter’s comments on the DEIR, while the CAP includes a monitoring mechanism,¹¹ it is unclear if the City has been monitoring compliance with its provisions. CAPs generally should undergo monitoring pursuant to CEQA Guidelines §§ 15064.4(b)(3) and 15183.5(b)(1) so that they are effective, but there is no evidence here that the City has been conducting compliance monitoring with its CAP. A search of the City’s website fails to reveal any publicly available documentation such as progress reports, GHG inventories, and completion of GHG reduction measures called for in the CAP.

The City seems to have failed to satisfy the CAP’s reporting and monitoring requirements, and with no reports available to review, the DEIR lacks substantial evidence that complying with the CAP translates to actual GHG reductions.

2. *The FEIR’s Conclusion that the Project will have “Less Than Significant” Impact on Cultural Resources is Unsupported by Substantial Evidence.*

¹¹ CAP at 7-10.

As stated in commenter’s DEIR comment letter, it is well-established that architectural and historic resource impacts can be significant impacts that must be studied under CEQA Guidelines App. G. Under Pub. Res. Code § 21084.1, a project may have a significant effect on the environment if it causes a substantial adverse change in the significance of an historical resource. The fact a resource is not listed in a state or local register or identified in a survey does not preclude a lead agency from determining a resource is historically significant. See CEQA Guidelines § 15064.5(a)(4). A historical resource is “materially impaired when a project ... [d]emolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion” as a state or local historic resource. *Id.*, subd. (b)(2)(C). This is significant under CEQA. See e.g., Pub. Res. Code § 15064.5(b); *Ocean View Estates v. Montecito Water Dist.* (2004) 116 Cal.App.4th 396, 401; *Quail Botanic Gardens v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1603-1605.

Here, the DEIR identifies the 121-141 N. Fig building as a historic building eligible for designation under the California Register of Historical Resources, Criterion 3.¹² Hence, there is a potential for a significant impact identified in the DEIR as Impact CR-1. (DEIR, p. 4.2-25.) As stated in the DEIR, the 121-141 N. Fig building was designed by Russell Forester, a recognized architect, is a good example of the International Style, and it has not been modified since completion in 1965. (DEIR, p. 4.2-25.)

Moreover, the DEIR’s conclusion that implementation of mitigation measure M-CR-1, which concludes that “preserving the historical record of the resource through research and documentation consistent with National Parks Service Guidelines for Historical Buildings would mitigate impacts to less than significant is unsupported by substantial evidence. The DEIR itself concludes that the 121-141 N. Fig building is a historic building eligible for designation under the California Register of Historical Resources, Criterion 3.

As the National Parks Service Guidelines for Historical Guidelines notes:

¹² Criterion 3 for eligibility on California Register of Historical Resources: “Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.” https://ohp.parks.ca.gov/?page_id=21238.

Important historic properties cannot be replaced if they are destroyed. Preservation planning provides for conservative use of these properties, preserving them in place and avoiding harm when possible and altering or destroying properties only when necessary.¹³

Preservation in place is “generally preferred: and “only when a decision is made that a particular property will not be preserved in place, . . . [then] the need for documentation must then be considered.”¹⁴ Since the National Parks Service Guidelines express a preference for preservation over destruction, the DEIR’s conclusion that the Project will not have a significant impact on cultural resources is unsupported.

In addition to failing to support its findings with substantial evidence, the FEIR fails CEQA’s information disclosure requirements since it fails to explain how M-CR-1 would mitigate the Project’s demolition or relation of the historically significant structures at 121 – 141 N. Fig. to less than significant levels, since the very guidelines that the FEIR relies upon states that demolition and even relocation of a historic resource would be a significant impact. An EIR must provide the reader with an analytic bridge between the evidence and findings. (*Topanga Assn for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 515. Here, the FEIR does not provide any analysis to support its conclusion that M-CR-1 would mitigate the Project’s impacts to cultural resources to a less than significant level.

3. *The FEIR Fails to Adequately Respond to Commenter’s Concerns Relating to the City’s Land Use Analysis Which is Not Based Upon Substantial Evidence and Omits Information.*

The DEIR proposed a development agreement, which would include a transfer of density from the Project area east of Valley Boulevard to the Project area west of Valley Boulevard in order to allow a density greater than 75 du/ac west of Valley Boulevard. The DEIR concluded that the transfer would be in accord with the City’s Density Transfer Program.

¹³ The Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation: Standards, available at https://www.nps.gov/history/local-law/arch_stnds_1.htm

¹⁴ The Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation: Note on Documentation and Treatment of Historic Properties, available at https://www.nps.gov/history/local-law/arch_stnds_4_2.htm

Under Appendix G of the CEQA Guidelines, a significant impact to land use and planning may occur when a significant environmental impact may occur due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The DEIR proposed a density transfer that is inconsistent with the City’s General and Downtown Specific Plan, as discussed in further detail below. The DEIR contains no analysis of this inconsistency, potential for environmental impact resulting, or any discussion of the density transfer within its land use impacts analysis. Because the request to transfer densities within the Project site may violate the City’s Density Transfer Program under the Downtown Specific Plan—an analysis must be conducted whether this may or may not result in a potentially significant environmental impact requiring mitigation. Failure to do so is an unlawful omission of information under CEQA.

The FEIR’s response to comments fails to adequately respond to commenter’s concerns raised on the DEIR. The EIR still lacks analysis of the potential inconsistency created by the density transfer, any potential for environmental impacts resulting, and still fails to include any discussion of this issue in the land use analysis section of the EIR. And the FEIR’s slight facial changes to the wording in the Project Description does not change the fact that that the proposed density transfer fails to meet the requirements of the City’s Density Transfer Program, as discussed further below.

III. THE PROJECT VIOLATES THE STATE PLANNING AND ZONING LAW AS WELL AS THE CITY’S GENERAL PLAN

A. Background Regarding the State Planning and Zoning Law

An EIR must identify, fully analyze and mitigate any inconsistencies between a proposed project and the general, specific, regional, and other plans that apply to the project. CEQA Guidelines § 15125(d); *Pfeiffer v. City of Sunnyvale City Council* (2011) 200 Cal.App.4th 1552, 1566; *Friends of the Eel River v. Sonoma County Water Agency* (2003) 108 Cal.App.4th 859, 881. There does not need to be a direct conflict to trigger this requirement; even if a project is “incompatible” with the “goals and policies” of a land use plan, the EIR must assess the divergence between the project and the plan, and mitigate any adverse effects of the inconsistencies. *Napa Citizens for*

Honest Government v. Napa County Bd. of Supervisors (2001) 91 Cal.App.4th 342, 378-79; *see also Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903 (holding under CEQA that a significant impact exists where project conflicts with local land use policies); *Friends of “B” Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 998 (held county development and infrastructure improvements must be consistent with adopted general plans) (citing Gov. Code 65302).

B. The FEIR Fails to Address Commenter’s Concerns that the DEIR’s Lack of Affordable Housing Units is Inconsistent with the State’s RHNA Allocations

Since 1969, California has *required* that all local governments (cities and counties) adequately plan to meet the housing needs of everyone in the community. California’s local governments meet this requirement by adopting housing plans as part of their “general plan” (also required by the state). General plans serve as the local government’s “blueprint” for how the city and/or county will grow and develop and include seven elements: land use, transportation, conservation, noise, open space, safety, and housing. The law mandating that housing be included as an element of each jurisdiction’s general plan is known as “housing-element law.” California’s housing-element law acknowledges that, in order for the private market to adequately address the housing needs and demand of Californians, local governments must adopt plans and regulatory systems that provide opportunities for (and do not unduly constrain), housing development. As a result, housing policy in California rests largely on the *effective implementation* of local general plans and, in particular, local housing elements. Existing law requires the housing element to contain a program that sets a 5-year schedule of actions to implement the goals and objectives of the housing element under RHNA allocations. Existing law also requires cities and counties to review and revise their housing elements at least every 5 years for compliance. (Gov. Code § 65584.)

The City of Escondido’s General Plan – Housing Element was adopted in August 2011.¹⁵ Escondido’s RHNA is described beginning on page 82 of the Housing Element. SANDAG’s RHNA was adopted in 2011 and allocated a need for 4,175 new housing units in the City for the period between January 1, 2010 to December 31, 2020. The number of units needed is broken down by income category on page 83 of

¹⁵ City of Escondido General Plan Housing Element, <https://www.escondido.org/Data/Sites/1/media/pdfs/Housing/DraftHousingElement.pdf>.

the Housing Element. There is a need for 460 units for extremely low income residents, 582 for very low income, 791 for low income, 733 for moderate income, and 1,609 for above moderate income residents.¹⁶

According to SANDAG’s RHNA assessment, or progress report for 2019, which tracked the progress toward the City of Escondido’s RHNA allocation requirements and compliance with the City’s Housing Element—the City is extremely far behind meeting its RHNA allocations for very low, low, and moderate income housing units.¹⁷ Almost no measurable progress was made from 2010 until the present in creating housing units for any group other than above moderate income residents. The City’s own Housing Element Annual Report from 2017 indicates the same—the City is very far behind creating new affordable housing units and will not come close to meeting the RHNA requirement under state law.¹⁸

The FEIR completely fails to address commenter’s concerns on this issue. The state housing law, and the City’s General Plan, requires that the City meet its RHNA allocation requirements regardless of whether the City has an inclusionary housing ordinance. The Project needs to include affordable housing units to be consistent with the City’s General Plan and its RHNA allocation requirements under state housing law.

C. The Project’s Proposed Density Transfer is Inconsistent with the Downtown Specific Plan

The City appears to have adopted a Density Transfer Program under the Downtown Specific Plan per the City Planning Commission’s April 9, 2019 vote.¹⁹ Commenters could find no other record evidence that the City Council or voters approved such an amendment to the City’s Downtown Specific Plan. Commenters operate under the

¹⁶ *Id.* at 83.

¹⁷ SANDAG 5th Cycle Regional Housing Needs Assessment (RHNA) Fact Sheet, https://www.sandag.org/uploads/publicationid/publicationid_4647_27206.pdf.

¹⁸ 2017 City of Escondido Annual Housing Element Progress Report, <https://www.escondido.org/data/sites/1/media/pdfs/housing/annualhousingelementreport.pdf?v=4>.

¹⁹ April 9, 2019, Escondido Planning Commission meeting minutes, p. 4887. <https://www.escondido.org/Data/Sites/1/media/minutes/PC/2019/04.09.19PCMinutesApproved.pdf>.

assumption that the publicly available draft of the Density Transfer Program dated March 26, 2019 has or will be incorporated into the City’s Downtown Specific Plan.²⁰

The Density Transfer Program (“DTP”) allows the City to transfer densities from undeveloped or underutilized properties (sending areas) within the Downtown Specific Plan to developing properties (receiving areas) to enable a developing property to increase its density beyond what current zoning permits. Notably, the receiving property in need of a density allowance must receive credits from the density pool. Credits can then be transferred to developing properties from the pool.²¹

Here, the Applicant proposes a Development Agreement that would include a density transfer from the Project area east of Valley Boulevard to the Project area west of Valley Boulevard in order to allow a density greater than 75 du/ac west of Valley Boulevard. The DEIR claimed that this transfer would be in accord with the DTP without any analysis. However, this transfer is not permissible under the DTP.

As is clear from the text of the DTP—no transfers are permitted under the same developing project. Unused densities must be transferred by the City to the credit pool where the City has identified underutilization, and then a receiving property may request density beyond that permitted by zoning with a grant of credits from the pool. Nowhere in the text of the DTP does it contemplate allowing a project applicant to shift densities within the same project to achieve something which is greater than that allowed under the DTP. The Program Administration section of the DTP lays out the process as follows:

A property owner or developer who requests density from the Density Credit Pool, would submit an application for a Planned Development Permit to the Planning Division. The Planning Division would review the Planned Development application for completion, project design, environmental concerns, CEQA process, zoning compliance, and other City and state regulations.

When a development is approved to receive density from the Density Credit Pool, those density units would be deducted from the density credit pool. Monitoring of the density credit pool would be accomplished by

²⁰ Draft text of Density Transfer Program, March 26, 2019, <https://www.escondido.org/Data/Sites/1/media/PDFs/Planning/DensityTransferProgram/DensityTransferProgram032619.pdf>.

²¹ *Id.*

utilizing tables which details information regarding sending and receiving properties and documents available density within the DSP. Comprehensive tables would list pertinent data for each sending and receiving property such as assessor parcel numbers, addresses, ownerships, acreages, existing dwelling units and/or allowable dwelling units, additional dwelling units requested, application dates, approval dates, available number of units within the district pool, and number of units approved, and resolution number approving the allocations.

Administration of the transfer of density between the density credit pool, sending areas, and receiving areas would be routinely monitored to ensure that the number of dwelling units for the DSP would not be permitted to exceed the buildout of 5,275 units. An annual report to the City Council regarding the DSP density pool would be presented by staff to outline approved projects, constructed projects, balance left in the density pool and recommendations for the upcoming year.

The DEIR proposed shortcutting this process with the use of a development agreement and an intra-project transfer of credits that has not been approved by the City or the Planning Commission, nor is proposed for approval according to the steps laid out in the DTP's administration plan. Thus, the Project's proposed density transfer is inconsistent with the City's General Plan and the Downtown Specific Plan.

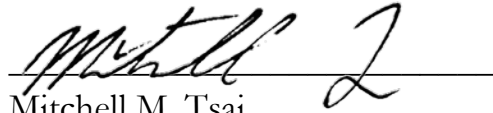
The FEIR, as noted above, fails to address commenter's concerns on this issue and is inconsistent with the City General and Downtown Specific Plans because the credits the EIR proposes to transfer do not come from the density transfer credit pool and the transfer otherwise still does not follow the protocol laid out in the DTP.

Furthermore, it is clear from the text of the DTP that the applicant must submit a separate application to the City for a planned development permit in order to have a density transfer from the credit pool approved after it is reviewed by the Planning Division. It is not clear that the prerequisites have or will take place before the City approves the EIR. The FEIR simply notes these actions will now take place simultaneously after commenter raised its concerns. (FEIR, pp. 11-66-67.)

IV. CONCLUSION

Commenters request that the City revise and recirculate the Project's environmental impact report to address the aforementioned concerns. If the City has any questions or concerns, feel free to contact my Office.

Sincerely,



Mitchell M. Tsai

Attorneys for Southwest Regional
Council of Carpenters

Attached:

Air Quality and GHG Expert, Matt Hagemann, P.G., C.Hg. – C.V. (Exhibit A);

Air Quality and GHG Expert, Paul Rosenfeld, Ph.D. – C.V. (Exhibit B);

Letter from Hagemann and Rosenfeld to Mitchell M. Tsai re Comments on Palomar Heights Project (Exhibit C);

City of Escondido Climate Action Plan (E-CAP or CAP) (Exhibit D);

California Air Resources Board (Nov. 2017) California's 2017 Climate Change Scoping Plan (Exhibit E);

City of Escondido General Plan – Housing Element (Exhibit F);

SANDAG 5th Cycle Regional Housing Needs Assessment (RHNA) Fact Sheet (Nov. 2019) (Exhibit G);

City of Escondido Annual Element Progress Report (2017) (Exhibit H);

City of Escondido April 9, 2019 Planning Commission Meeting Minutes (Exhibit I);
and

Density Transfer Program Draft (Mar. 26, 2019) (Exhibit J).

EXHIBIT A



Technical Consultation, Data Analysis and
Litigation Support for the Environment

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Matt Hagemann, P.G., C.Hg.
(949) 887-9013
mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

**Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review**

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist

California Certified Hydrogeologist

Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 150 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nationwide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.

- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukunaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Clean up at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

EXHIBIT B



Paul Rosenfeld, Ph.D.

Principal Environmental Chemist

Chemical Fate and Transport & Air Dispersion Modeling

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H₂O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. *Journal of Real Estate Research*. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermol and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

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Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*, 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

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Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

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Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office, Publications Clearinghouse (MS-6)*, Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

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Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

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Chollack, T. and **P. Rosenfeld**. (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States” Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florida, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

Rosenfeld, P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

Rosenfeld, P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

- In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et. al. *Defendant*.
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019
- In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs*, vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS “Conti Perdido”
Defendant.
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19
- In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018
- In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosiences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017
- In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017
- In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017
- In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018
- In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs*, vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No.: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al., et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No.: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action NO. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward
DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City
Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs*, vs. BP Products North America, Inc., *Defendant*.
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C



Technical Consultation, Data Analysis and
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September 16, 2020

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Comments on Palomar Heights Project (SCH No. 2018059013)

Dear Mr. Tsai,

We have reviewed the July 2020 Final Environmental Impact Report ("FEIR") for the Palomar Heights Project ("Project") located in the City of Escondido ("City"). The Project proposes to construct 510 dwelling units, up to 10,000-SF of commercial space, 175,119-SF of open space, as well as 877 parking spaces on the 13.8-acre Project site.

Our review concludes that the FEIR fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An updated EIR should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the surrounding environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The FEIR's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2.¹ CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be

¹ CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

justified by substantial evidence.² Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions and make known which default values were changed as well as provide justification for the values selected.³

As previously stated, the FEIR's air quality analysis relies on air pollutant emissions calculated using CalEEMod. When reviewing the Project's CalEEMod output files, provided in the Air Quality Report as Appendix K to the FEIR, we found that several model inputs were not consistent with information disclosed in the FEIR. As a result, the Project's construction and operational emissions are underestimated. An updated EIR should be prepared and recirculated to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Failure to Model All Proposed Land Uses

According to the FEIR, the proposed Project includes 175,119-SF of open space (see excerpt below) (p. 2-3, Table 2-1).

Use	Units	Square Feet
<i>Residential</i>		
Senior Apartments	90	—
Apartments	258	—
Villas	7290	—
Rowhomes	9072	—
Total	510	—
<i>Commercial</i>		
Commercial (café, work space, restaurant, leasing space, etc.)	—	10,000
Total	—	10,000
<i>Open Space</i>		
Private	—	45,375
Active	—	40,226,33,209
Passive	—	99,70596,535
Total	—	185,306175,119

As you can see in the excerpt above, the Project proposes to construct 175,119-SF of open space. As such, the Project's model should have included 175,119-SF of "City Park" land use space. However, review of the Project's CalEEMod output files demonstrate that model failed to include the "City Park" land use space (see excerpt below) (Appendix K, pp. 61, 100, 133).

² CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 1, 9.

³ CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 11, 12 – 13. A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.00	1000sqft	0.07	3,000.00	0
Parking Lot	915.00	Space	7.00	366,000.00	0
Health Club	2.00	1000sqft	0.05	2,000.00	0
Quality Restaurant	3.00	1000sqft	0.07	3,000.00	0
Apartments Mid Rise	258.00	Dwelling Unit	3.00	258,000.00	738
Condo/Townhouse High Rise	162.00	Dwelling Unit	2.53	162,000.00	463
Retirement Community	90.00	Dwelling Unit	1.00	58,000.00	257
Strip Mall	4.00	1000sqft	0.09	4,000.00	0

As you can see in the excerpt above, the model failed to include 175-119-SF of the Project’s “City Park” land use space. This omission presents an issue, as the land use type and size features are used throughout CalEEMod to determine default variable and emission factors that go into the model’s calculations.⁴ For example, the square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts).⁵ Furthermore, CalEEMod assigns each land use type with its own set of energy usage emission factors.⁶ Thus, by failing to model the proposed open space, the model underestimates the Project’s construction and operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Default CO₂ Intensity Factor

Review of the Project’s CalEEMod output files demonstrate that the default CO₂ intensity factor was manually reduced from 720.49 pounds per megawatt hour (“lbs/MWh”) to 640.44 lbs/MWh (see excerpt below) (Appendix K, pp. 62, 101, 134).

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CO2IntensityFactor	720.49	640.44

As you can see in the excerpt above, the default CO₂ intensity factor was reduced by approximately 11%. As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.⁷ According to the “User Entered Comments & Non-Default Data” table, the justification provided for this change is: “The CO₂ intensity factor for SDG&E was modified to reflect compliance with the RPS for the operational year” (Appendix K, pp. 61, 100, 133). Furthermore, the FEIR states:

“The *City of Escondido Climate Action Plan* (E-CAP) establishes a series of energy efficiency related measures intended to reduce greenhouse gas (GHG) emissions based on the AB 32

⁴ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/01_user-39-s-guide2016-3-1.pdf?sfvrsn=2, p. 17

⁵ “CalEEMod User’s Guide, Appendix D.” CAPCOA, September 2016, available at: http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/05_appendix-d2016-3-1.pdf?sfvrsn=2

⁶ “CalEEMod User’s Guide, Appendix D.” CAPCOA, September 2016, available at: http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/05_appendix-d2016-3-1.pdf?sfvrsn=2

⁷ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: <http://www.caleemod.com/>, p. 2, 9.

Scoping Plan. Those applicable to the Project are R1-E1, Renewables Portfolio Standard for Building Energy Use...” (p. 5-24).

However, these justifications are incorrect for four (4) reasons. First, as stated in the “User Entered Comments & Non-Default Data” table, the model uses an RPS target for the Project’s *operational* year. However, as a result of this change, any electricity use prior to the anticipated operational year, will be underestimated. Second, while the FEIR addresses that the *State* has these *goals*, it fails to provide substantial evidence that these reductions will actually be achieved by the target year. Third, just because the *State* has these *goals* does not mean that they will actually be achieved locally on the Project site. Finally, the FEIR fails to address the default CalEEMod intensity factors in relation to the Renewable Portfolios Standard, and how this 11% reduction was calculated. As a result, we cannot verify this change. This unsubstantiated reduction presents an issue, as CalEEMod uses the CO₂ intensity factor to calculate the Project’s greenhouse gas (“GHG”) emissions associated with electricity use.⁸ Thus, by including an unsubstantiated reduction to the Project’s anticipated CO₂ intensity factor, the model may underestimate the Project’s GHG emissions and should not be relied upon to determine Project significance.

Use of Underestimated Operational Vehicle Trip Rates

According to the Project’s Traffic Impact Analysis (“TIA”), provided as Appendix J to the FEIR, the proposed Project is expected to generate 4,264 daily vehicle trips throughout operation (TIA, p. 51, Table 7-1). However, review of the Project’s CalEEMod output files demonstrate that the model includes only 4,166.78 Saturday trips and 3,334 Sunday trips (see excerpt below) (Appendix K, pp. 63, 102, 135).

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,548.00	1,612.50	1362.24	4,370,548	4,370,548
Condo/Townhouse High Rise	1,296.00	1,334.88	1035.18	3,609,944	3,609,944
General Office Building	60.00	13.38	5.70	108,932	108,932
Health Club	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	480.00	283.08	216.48	491,337	491,337
Retirement Community	360.00	562.50	475.20	1,157,499	1,157,499
Strip Mall	520.00	360.44	239.20	703,936	703,936
Total	4,264.00	4,166.78	3,334.00	10,442,196	10,442,196

As you can see in the excerpt above, the number of average Saturday and Sunday trips were underestimated by 97.22 and 930 trips, respectively. Thus, the FEIR’s CalEEMod model is inconsistent with the TIA, and the model may underestimate the Project’s mobile-related operational emissions. As a result, the model should not be relied upon to determine Project significance.

Unsubstantiated Changes to Architectural Coating Emission Factors

Review of the Project’s CalEEMod output files demonstrate that the model included several manual changes to the Project’s architectural coating emission factors (see excerpt below) (Appendix K, pp. 62, 101, 134).

⁸ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: CalEEMod.com, p. 17.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00

As you can see in the excerpt above, the architectural coating emission factors were reduced from their default value of 250 grams per liter (“g/L”) to 100 g/L and 50 g/L, resulting in reductions of 60% and 80%, respectively. As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.⁹ According to the “User Entered Comments & Non-Default Data” table, the justification provided for this change is: “Compliance with SDAPCD rule 67.0.1” (Appendix K, pp. 62, 101, 134). However, review of SCAQMD Rule 67.0.1 demonstrates that these changes are not justified.

The SCAQMD Rule 67.0.1 Table 1. VOC Content of Coatings provides the required VOC limits (grams of VOC per liter of coating) for 41 different coating categories (e.g., Floor coatings, Faux Finishing Coatings, Fire Resistive Coatings, Cement Coatings, Multi-Color Coatings, Primers, Sealers, Recycled Coatings, Shellac, Stains, Traffic Coatings, Waterproofing Sealers, Wood Coatings, etc.).¹⁰ The VOC limits for each coating varies from a minimum limit of 50 g/L to a maximum limit of 500 g/L. As such, we cannot verify that SCAQMD Rule 67.0.1 substantiates a reduction to the default coating values without more information regarding what category of coating will be used. However, the “User Entered Comments & Non-Default Data” table and FEIR fail to mention what type of coating will be used. Absent additional information specifying which categories of coating would be used for the proposed Project, we cannot compare the emission factors inputted into CalEEMod with the SCAQMD Rule 67.0.1 requirements. As such, we are unable to substantiate the revised architectural coating emission factors inputted into the model. As a result, the model may underestimate the Project’s area-source construction-related emissions and should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Number of Wood Fireplaces

Review of the Project’s CalEEMod output files demonstrate that the number of fireplaces included in the model was manually reduced to zero (see excerpt below) (Appendix K, pp. 62, 101, 134).

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	90.30	0.00
tblFireplaces	NumberWood	56.70	0.00
tblFireplaces	NumberWood	31.50	0.00

⁹ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: <http://www.caleemod.com/>, p. 2, 9.

¹⁰ “Rule 67.0.1 Architectural Coatings.” SCAQMD, January, 2016, available at: https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R67-0-1.pdf, p. 11-12, Table 1. VOC Contents of Coating.

As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.¹¹ According to the “User Entered Comments & Non-Default Data” table, the justification provided for this change is: “No wood fireplaces” (Appendix K, pp. 62). However, the FEIR fails to mention or justify this claim whatsoever. As a result, we are unable to verify that the Project would not include any wood fireplaces. This presents an issue, as CalEEMod uses the number of fireplaces to calculate the Project’s area-source operational emissions.¹² Thus, by including unsubstantiated reductions to the Project’s anticipated number of fireplaces, the model may underestimate the Project’s area-source operational emissions and should not be relied upon to determine Project significance.

Failure to Include All Required Demolition

According to the CalEEMod User’s Guide, “[h]aul trips are based on the amount of material that is demolished, imported or exported assuming a truck can handle 16 cubic yards of material.”¹³ Therefore, the air model calculates a default number of hauling trips based upon the amount of demolition material inputted into the model.

Regarding the amount of demolition required for Project construction, the FEIR states:

“The Project includes the demolition of all existing buildings and hardscape, as well as removal of two known underground storage tanks for diesel fuel and potentially removal of up to three other tanks based on the historic uses of the property” (p. 2-9).

Furthermore, review of the CalEEMod output files demonstrates that the model for the existing site includes 392,001-SF of hospital and 414,800-SF of parking land use space, to be demolished (see excerpt below) (Appendix K, pp. 166, 191, 212).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	392.00	1000sqft	4.47	392,001.00	0
Enclosed Parking with Elevator	511.00	Space	4.60	204,400.00	0
Parking Lot	526.00	Space	4.73	210,400.00	0

As such, the model should have included the demolition of both 392,001-SF of building space and 414,800-SF of hardscape. However, review of the Project’s CalEEMod output files demonstrates that the model calculated a default value of 1,783 hauling trips (see excerpt below) (Appendix K, pp. 68, 106, 140).

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	16.00	0.00	1,783.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Review of CalEEMod demonstrates that inputting 392,001-SF of building demolition results in a default demolition hauling trip number of 1,783, which is the default demolition hauling trip number demonstrated in the excerpt above. Thus, the remaining 414,800-SF of hardscape was not included in

¹¹ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: <http://www.caleemod.com/>, p. 2, 9.

¹² CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 41

¹³ http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14

the model. This presents an issue, as the total amount of demolition material is used by CalEEMod to determine emissions associated with this phase of construction. The three primary operations that generate dust emissions during the demolition phase are mechanical or explosive dismemberment, site removal of debris, and on-site truck traffic on paved and unpaved road.¹⁴ Thus, by underestimating the demolition of existing structures and hardscape, emissions associated with fugitive dust, site removal, and exhaust from hauling trucks traveling to and from the site are underestimated. As a result, the model underestimates the Project’s construction-related emissions and should not be relied upon to determine the significance of the Project’s air quality impacts.

Incorrect Application of Construction-Related Mitigation Measures

Review of the Project’s CalEEMod output files demonstrate that the model includes the following two (2) construction-related mitigation measures: “Water Exposed Area” and “Reduce Vehicle Speed on Unpaved Roads” (see excerpt below) (Appendix K, pp. 69, 107, 140).

3.1 Mitigation Measures Construction

Water Exposed Area
Reduce Vehicle Speed on Unpaved Roads

Furthermore, the model also includes a reduced vehicle speed of 15 miles per hour (“MPH”) as a result of the “Reduce Vehicle Speed on Unpaved Roads” mitigation measure (see excerpt below) (Appendix K, pp. 62, 103, 134).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.¹⁵ According to the “User Entered Comments & Non-Default Data” table, the justification provided for this change is: “Compliance with SDAPCD Fugitive dust rule” (Appendix K, pp. 69, 107, 140). However, review of SDAPCD Rule 55, Fugitive Dust Control, demonstrates that the specific dust-control measures included in the modeling are not expressly required by the Rule. Specifically, Rule 55(d) states:

“(1) **Airborne Dust Beyond the Property Line:** No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60 minute period.

(2) **Track-Out/Carry-Out:** Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall:

¹⁴ CalEEMod User Guide, Appendix A, p. 11, available at: <http://www.caleemod.com/>

¹⁵ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: <http://www.caleemod.com/>, p. 2, 9.

(i) be minimized by the use of **any of the following or equally effective** trackout/carry-out and erosion control measures that apply to the project or operation: track-out grates or gravel beds at each egress point, wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks: using secured tarps or cargo covering, watering, or treating of transported material; and

(ii) be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only PM10-efficient street sweepers certified to meet the most current South Coast Air Quality Management District Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances” (emphasis added).¹⁶

As you can see in the excerpt above, while Rule 55 generally prohibits the discharge of visible construction dust emissions beyond the property line, it does not specify any *required* methods to comply. Furthermore, while watering is *mentioned*, Rule 55 does not expressly require it and thus, we cannot verify that this will actually be implemented, monitored, and enforced on the Project site. Thus, Rule 55 therefore does not expressly *require* any of the dust control mitigation measures included in the CalEEMod model. Additionally, while the MMRP states that “[i]n accordance with San Diego Air Pollution Control District (SDAPCD) Rule 55, Fugitive Dust Control, the Project will include dust control measures during grading,” the MMRP fails to identify which measures would be implemented and explicitly commit to them.

Furthermore, the FEIR states:

“Compliance with Rule 55 would limit fugitive dust (PM10 and PM2.5) generated during grading and construction activities. To account for dust control measures in the calculations, it was *assumed* that the active sites would be watered at least three times daily, resulting in an approximately 61% reduction of particulate matter” (emphasis added) (p. 5-14).

Thus, the FEIR fails to explicitly *require* watering and only *assumes* that active sites will be watered at least three times per day. As such, the FEIR does not include any binding mitigation requiring these measures to be implemented, nor does the FEIR provide any supporting evidence demonstrating that these measures will be implemented, monitored, and enforced on the Project site. As a result, we cannot verify the inclusion of these measures, and the model may underestimate the Project’s construction-related emissions and should not be relied upon to determine Project significance.

¹⁶ “Rule 55 Fugitive Dust Control.” SDAPCD, June 2009, available at: https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R55.pdf.

Incorrect Application of Waste-Related Mitigation Measure

Review of the Project’s CalEEMod output files demonstrates that the model includes the following waste-related mitigation measure: “Institute Recycling and Compost Services” (see excerpt below) (Appendix K, pp. 97, 132, 165).

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

However, the FEIR fails to demonstrate consistency with this measure according to the relevant guidance. According to the CalEEMod User’s Guide, the inclusion of operational mitigation measures in the model is based on CAPCOA’s *Quantifying Greenhouse Gas Mitigation Measures* document. Specifically, the CalEEMod User’s Guide states:

“The mitigation measures included in CalEEMod are largely based on the CAPCOA Quantifying Greenhouse Gas Mitigation Measures (<http://www.capcoa.org/wp-content/uploads/downloads/2010/09/CAPCOA-Quantification-Report-9-14-Final.pdf>) document. The CAPCOA measure numbers are provided next to the mitigation measures in CalEEMod to assist the user in understanding each measure by referencing back to the CAPCOA document.”¹⁷

However, the FEIR fails to demonstrate consistency with the “Institute Recycling and Composting Services” mitigation measure included in the model as described in CAPCOA’s *Quantifying Greenhouse Gas Mitigation Measures* document (see table below).

Measure		Consistency
CAPCOA’s Quantifying Greenhouse Gas Mitigation Measures¹⁸		
Waste Measures		
Measure SW-1 Institute Recycling and Composting Services		
<i>“Current protocols for quantifying emissions reductions from diverted landfill waste developed by the USEPA and the California Center for Integrated Waste Management Board (CIWMB) are based on life-cycle approaches, which reflect emissions and reductions in both the upstream and</i>		Here, the “User Entered Comments & Non-Default Data” table attempts to justify the inclusion of this measure by stating: “75% Diversion rate in compliance with AB 341” (Appendix K, pp. 62, 101, 134). Furthermore, the FEIR states that “[t]he Project would be in compliance with state policies like the California Solid Waste Reuse and Recycling Access Act of 1991 and AB 341 (Solid Waste Diversion) ... In

¹⁷ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: <http://www.caleemod.com/>, p. 53.

¹⁸ “Quantifying Greenhouse Gas Mitigation Measures.” CAPCOA, August 2010, available at: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.

downstream processes around waste management. The Project Applicant should seek local agency guidance on comparing and/or combining operational emissions inventories and life cycle emissions inventories... To take credit for this measure, the Project Applicant would need to provide detailed and substantial evidence supporting the amount of waste reduced or diverted to recycling and composting due to the institution of extended recycling and composting services.”

- *“USEPA’s Waste Reduction Model (WARM) is used to quantify baseline emissions and emissions reductions from diverting landfill waste to composting or recycling. This webbased tool is available online... The required inputs are the tons of waste associated with one of three waste management practices: landfill (baseline scenario), recycled (mitigated scenario), combusted (not applicable in California), and composted (mitigated scenario).”*

addition, organic waste would be recycled in accordance with AB 1826 Chesbro” (p. 5-61). However, these justifications are incorrect and fail to substantiate the inclusion of this measure in the model for seven (7) reasons. First, AB 341 is a statewide goal and does not verify that anything will occur locally, on the Project-site. Second, just because the state has these goals does not verify that they will actually be achieved by the target year. Third, without any sources or substantial evidence to support these claims, we cannot verify their accuracy. Fourth, the Project fails to specify which programs will be included to reduce this waste, and how the Project can guarantee that these programs will reduce waste by a minimum of 75 percent, as indicated. Fifth, this measure includes both recycling and composting, and while the FEIR states the Project will comply with AB 1826, the Project fails to demonstrate that the measure would include any composting whatsoever. Sixth, this justification and the FEIR fail to demonstrate that local agency guidance was sought or disclose the amount of waste reduced or diverted to recycling and composting due to the institution of extended recycling and composting services, as is required by CAPCOA. Finally, this justification and the FEIR fail to utilize or mention WARM, or any quantification of baseline and diverted emissions, including the required inputs of landfill (baseline scenario), recycled (mitigated scenario), and composted (mitigated scenario), as is required. As such, this measure is unsubstantiated, and the model should not be relied upon to determine Project significance.

As shown above, the FEIR fails to justify the waste-related mitigation measure utilized in the Project’s CalEEMod model according to the relevant CalEEMod and CAPCOA guidance. As a result, the inclusion of this measure in the model is unsubstantiated and the model should not be relied upon to determine Project significance.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The Air Quality Report, provided as Appendix K to the FEIR, concludes that the Project's health risk impact would be less than significant without conducting a quantified construction or operational health risk assessment ("HRA") (Appendix K, p. 38). Specifically, the Air Quality Report states:

"[T]he duration of proposed construction activities (approximately 75 months) for the proposed Project would only constitute a small percentage of the total long-term exposure period, and would not result in exposure of proximate sensitive receptors to substantial TACs. Further, the Project would not exceed the SDAPCD construction threshold for PM₁₀, which includes DPM and construction of the Project would not require any unusual construction practices that could lead to potentially risky pollutant exposures compared to standard practices. After construction is completed, there would be no long-term source of TAC emissions during operation of the Project. TACs impacts would be less than significant" (Appendix K, p. 38).

However, the Air Quality Report's evaluation of the Project's health risk impacts, as well as the subsequent less than significant impact conclusion, is incorrect for three (3) reasons.

First, Air Quality Report's claim that construction activities "would only constitute a small percentage of the total long-term exposure period, and would not result in exposure of proximate sensitive receptors to substantial TACs" is unsupported and fails to justify the omission of a quantified construction HRA. Without evidence to support this claim and demonstrate how the Project would result in less than significant impacts, we are unable to verify the Air Quality Report's conclusion and impacts may actually be significant. The omission of a quantified construction HRA is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California, which is recommended by the SDAPCD.¹⁹ As referenced by the Air Quality Report of the FEIR, OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015 (Appendix K, p. 38).²⁰ This guidance document describes the types of projects that warrant the preparation of an HRA. Construction of the Project will produce emissions of DPM, a human carcinogen, through the exhaust stacks of construction equipment over a construction period of approximately 71-months (p. 2-10). The OEHHA document recommends that all short-term projects

¹⁹ See Rule 1210(c)(18), available at:

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjhuoLzp8j pAhVNu54KHbfMAwQQFjAAegQIARAB&url=https%3A%2F%2Fwww.sandiegocounty.gov%2Fcontent%2Fdam%2Fsdcd%2Fapcd%2FPDF%2FRules_and_Regulations%2FRule_Development-Archive%2F2013%2FR1210-Tables_rev101113.pdf&usg=AOvVaw2W0TuIRKw0aORChNCneruH; see also "Supplemental Guidelines for Submission of Rule 1200 Health Risk Assessments (HRAs)" related to health risk assessments conducted under Rule 1210, SDAPCD, July 2019, available at: https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Toxics_Program/APCD_1200_Supplemental_Guidelines.pdf, p. 1.

²⁰ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/hotspots2015.html

lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.²¹ As the Project's proposed 71-month construction duration vastly exceeds the 2-month requirement set forth by OEHHA, it is clear that the Project meets the threshold requiring a quantified HRA under OEHHA guidance. We also recommend that health risk impacts from Project construction be evaluated in an updated EIR, per the OEHHA guidelines, in order to determine the nature and extent of the Project's health risk impacts.

Second, the Air Quality Report's claim that "there would be no long-term source of TAC emissions during operation of the Project" is unsupported and fails to justify the omission of a quantified operational HRA. Without evidence to support this claim and demonstrate how the Project would result in less than significant impacts, we are unable to verify the Air Quality Report's conclusion and impacts may actually be significant. In particular, the TIA indicates that operation of the proposed Project would generate 4,264 daily vehicle trips, which will generate additional exhaust emissions and continue to expose nearby sensitive receptors to DPM emissions (Appendix J, p. 51, Table 7-1). The OEHHA document, as referenced by the FEIR's Air Quality Report, recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR") (Appendix K, p. 38).²² Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. These recommendations reflect the most recent health risk guidelines, and as such, we recommend that an updated assessment of health risk impacts posed to nearby sensitive receptors from Project operation be included in an updated EIR for the Project.

Third, by claiming a less than significant impact without conducting a quantified HRA to disclose the exposure levels to nearby, existing sensitive receptors as a result of Project construction and operation, the FEIR fails to compare the excess health risk to the SDAPCD's specific numeric threshold of 10 in one million.²³ Thus, the Air Quality Report should not conclude that the Project's health risk impacts would be less than significant without quantifying emissions to compare to the proper threshold.

²¹ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18

²² "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15

²³ The SDAPCD's Excess Cancer Risk threshold is one "1 in 1 million" for development projects, and "10 in 1 million" for projects utilizing T-BACT. Toxics Best Available Control Technology (T-BACT) is defined as "the most effective emission limitation or emission control device or control technique which: (i) has been achieved in practice for that source or category of source; or (ii) is any other emissions limitation or control technique, including process and equipment changes of basic and control equipment and implementation of pollution prevention measures, found by the Air Pollution Control Officer to be technologically feasible for that source or category of source, or for a specific source. If there is an applicable MACT standard, the Air Pollution Control Officer shall evaluate it for equivalency with T-BACT." See SDAPCD Rule 1200(c)(24), available at: https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Toxic_Air_Cotaminants/AP_CD_R1200.pdf;

T-BACT can include diesel particulate filters, catalytic converters and selective catalytic reduction technology.

Thus, in accordance with the most relevant guidance, an assessment of the health risk posed to nearby, existing receptors from Project construction and operation should have been conducted. In an effort to demonstrate the potential risk posed by the Project to nearby sensitive receptors, we prepared a simple screening-level construction and operational HRA based on the FEIR's CalEEMod model. The results of our assessment, as described below, demonstrate that construction and operational DPM emissions may result in a potentially significant health risk impact that was not previously identified and evaluated within the FEIR.

Screening-Level Analysis Demonstrates Significant Impacts

In an effort to demonstrate the potential health risk posed by Project construction and operation to nearby, existing sensitive receptors, we prepared a simple screening-level HRA. The results of our assessment, as described below, demonstrate that the proposed Project will have a significant impact.

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.²⁴ The model replaced SCREEN3, and AERSCREEN is included in the OEHHA²⁵ and the California Air Pollution Control Officers Associated (CAPCOA)²⁶ guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's health-related impact to sensitive receptors using the annual PM₁₀ exhaust estimates from the FEIR's annual CalEEMod output files, provided in the Air Quality Report as Appendix K to the FEIR. Using Google Earth, we found that the closest sensitive receptor is located approximately 10 meters west of the Project site. Consistent with recommendations set forth by OEHHA, we used a residential exposure duration of 30 years, starting from the 3rd trimester stage of life. We also assumed that construction and operation of the Project would occur in quick succession, with no gaps between each Project phase. The FEIR's annual CalEEMod model's annual emissions indicate that construction activities will generate approximately 493 pounds of DPM over the 2,164-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation.

$$\text{Emission Rate} \left(\frac{\text{grams}}{\text{second}} \right) = \frac{493.4 \text{ lbs}}{2,164 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = \mathbf{0.001197 \text{ g/s}}$$

²⁴ U.S. EPA (April 2011) AERSCREEN Released as the EPA Recommended Screening Model, http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

²⁵ Supra, fn 20.

²⁶ CAPCOA (July 2009) Health Risk Assessments for Proposed Land Use Projects, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

Using this equation, we estimated a construction emission rate of 0.001197 grams per second (g/s). The FEIR's annual CalEEMod output files indicate that operational activities will generate approximately 1,497 pounds of DPM per year over approximately 24.07 years of operation, calculated by subtracting the existing annual exhaust PM₁₀ emissions from the proposed annual exhaust PM₁₀ emissions. Applying the same equation used to estimate the construction DPM emission rate, we estimated the following emission rate for Project operation.

$$\text{Emission Rate} \left(\frac{\text{grams}}{\text{second}} \right) = \frac{1,496.8 \text{ lbs}}{365 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = \mathbf{0.021529 \text{ g/s}}$$

Using this equation, we estimated an operational emission rate of 0.021529 g/s. Construction and operation were simulated as a 13.8-acre rectangular area source in AERSCREEN, with dimensions of 305.1 meters by 183 meters. A release height of three meters was selected to represent the height of stacks of operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project Site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant to be estimated by multiplying the single-hour concentration by 10%.²⁷ As previously stated, the closest residential receptors are located approximately 10 meters from the Project site. However, review of the AERSCREEN output files demonstrates that the *maximally* exposed residential receptor is located 150 meters from the Project site. The single-hour concentration estimated by AERSCREEN for Project construction is approximately 0.8882 µg/m³ DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.08882 µg/m³ for Project construction at the MEIR. For Project operation, the single-hour concentration at the MEIR estimated by AERSCREEN is approximately 15.97 µg/m³ DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 1.597 µg/m³ for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by updated OEHHA guidance from 2015, as recommended by SDAPCD and referenced by the FEIR's Air Quality Report (Appendix K, p. 38).²⁸ Consistent with an 2,146-day construction schedule, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years), the entire infantile stage of life (0 – 2 years), and the first 3.68 years of the child stages of life (2 – 16 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remainder of the child stages of life (2 – 16 years) and entire adult stage of life (16 – 30 years). Consistent with OEHHA guidance from 2015, as referenced by the Air

²⁷ U.S. EPA (October 1992) Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised, http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf.

²⁸ "Supplemental Guidelines for Submission of Rule 1200 Health Risk Assessments (HRAs)." SDAPCD, July 2019, available at:

https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Toxics_Program/APCD_1200_Supplemental_Guidelines.pdf.

Quality Report, we used Age Sensitivity Factors (“ASFs”) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution (Appendix K, p. 38).²⁹ According to the most updated guidance, quantified cancer risk should be multiplied by a factor of ten during the third trimester of pregnancy and during the first two years of life (infant). Furthermore, in accordance with guidance set forth by OEHHA, we used the 95th percentile breathing rates for infants.³⁰ Finally, consistent with OEHHA guidance, we used a Fraction of Time At Home (“FAH”) Value of 1 for the 3rd trimester and infant receptors.³¹ We used a cancer potency factor of 1.1 (mg/kg-day)⁻¹ and an averaging time of 25,550 days. The results of our calculations are shown in the tables below.

The Maximally Exposed Individual at an Existing Residential Receptor						
Activity	Duration (years)	Concentration (ug/m3)	Breathing Rate (L/kg-day)	Cancer Risk without ASFs*	ASF	Cancer Risk with ASFs*
Construction	0.25	0.08882	361	1.2E-07	10	1.2E-06
3rd Trimester Duration	0.25			1.2E-07	3rd Trimester Exposure	1.2E-06
Construction	2.00	0.08882	1090	2.9E-06	10	2.9E-05
Infant Exposure Duration	2.00			2.9E-06	Infant Exposure	2.9E-05
Construction	3.68	0.08882	572	2.8E-06	3	8.5E-06
Operation	10.32	1.597	572	1.4E-04	3	4.3E-04
Child Exposure Duration	14.00			1.4E-04	Child Exposure	4.3E-04
Operation	14.00	1.597	261	6.4E-05	1	6.4E-05
Adult Exposure Duration	14.00			6.4E-05	Adult Exposure	6.4E-05
Lifetime Exposure Duration	30.00			2.1E-04	Lifetime Exposure	5.2E-04

* We, along with CARB and SDAPCD, recommend using the more updated and health protective 2015 OEHHA guidance, which includes ASFs.

As demonstrated in the table above, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 150 meters away, over the course of Project construction and operation, utilizing age sensitivity factors, are approximately 64, 430, 29, and 1.2 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), utilizing age sensitivity factors, is approximately 520 in one million. The infant, child, adult, and lifetime cancer risks, using age sensitivity factors, all exceed the SDAPCD threshold of 10 in one million, thus

²⁹ OEHHA (Feb 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>.

³⁰ SCAQMD (Jun 2015) Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics ‘Hot Spots’ Information and Assessment Act, p. 19, <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6>; see also OEHHA (Feb 2015) Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>.

³¹ SCAQMD (Aug 2017) Risk Assessment Procedures for Rules 1401, 1401.1, and 212, p. 7, http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf.

resulting in a potentially significant impact not previously addressed or identified by the FEIR.³² Utilizing age sensitivity factors is the most conservative, health-protective analysis according to the most recent guidance by OEHHA. Results without age sensitivity factors are presented in the table above, although we **do not** recommend utilizing these values for health risk analysis. Regardless, the excess cancer risk posed to adults, children, infants, and during the third trimester of pregnancy at the MEIR, located approximately 150 meters away, over the course of Project construction and operation, without age sensitivity factors, are approximately 64, 140, 2.9, and 0.12 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years) at the MEIR, without age sensitivity factors, is approximately 210 in one million. The child, adult, and lifetime construction and operational cancer risks, using age sensitivity factors, all exceed the SDAPCD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the FEIR.³³ While we recommend the use of age sensitivity factors, health risk impacts exceed the SDAPCD threshold regardless.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. The purpose of the screening-level construction and operational HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level construction HRA indicates a potentially significant impact, an updated EIR should include a reasonable effort to connect the Project's air quality emissions and the potential health risks posed to nearby receptors. Thus, an updated EIR should be prepared, including a quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The Greenhouse Gas ("GHG") Report, provided as Appendix M to the FEIR, estimates that the proposed Project would result in an annual increase in construction-related GHG emissions of 200 metric tons of CO₂ equivalents per year ("MT CO₂e/year") and operational GHG emissions of -2,767 MT CO₂e/year (Appendix M, p. 30). As a result, the FEIR concludes that the Project would result in a less than significant GHG impact (Appendix M, p. 30). Specifically, according to the FEIR:

³² "Rule 1210. Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction." SDAPCD, May 2019, *available at*:

https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Toxic_Air_Cotaminants/APCD_R1210.pdf, p. 4.

³³ "Rule 1210. Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction." SDAPCD, May 2019, *available at*:

https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Toxic_Air_Cotaminants/APCD_R1210.pdf, p. 4.

“[T]he total proposed Project emissions during operation were estimated to be approximately 5,332 MT CO₂e per year which includes amortized construction emissions of 200 MT CO₂e per year. After accounting for the emissions generated from the existing hospital campus the project would produce a net negative amount of GHG emissions of -2,767 MT CO₂e. The proposed project would result in a net reduction of GHG emissions compared to existing conditions which is consistent with the goals outlined in CARB’s Scoping Plan which is discussed in detail in Section 5.2. Therefore, impacts would be less than significant” (Appendix M, p. 30).

Furthermore, the FEIR relies upon the Project’s consistency with the City’s E-CAP, SANDAG’s *San Diego Forward: The Regional Plan*, and CARB’s *Scoping Plan* in order to conclude that the Project would have a less than significant GHG impact (Appendix M, p. 31-40). However, the FEIR’s quantitative and qualitative GHG analyses, as well as the subsequent less than significant impact conclusion, are incorrect for four (4) reasons:

- (1) The FEIR’s quantitative analysis of the Project’s GHG emissions relies upon an incorrect and unsubstantiated air model;
- (2) The FEIR incorrectly relies upon the Project’s consistency with the City’s E-CAP;
- (3) The FEIR incorrectly relies upon the Project’s consistency with the SANDAG’s *San Diego Forward: The Regional Plan* and CARB’s *Scoping Plan*;
- (4) The FEIR fails to demonstrate that the Project would be consistent with SANDAG’s *San Diego Forward: The Regional Plan*; and
- (5) The FEIR fails to demonstrate that the Project would be consistent with CARB’s *Scoping Plan*.

1) Incorrect and Unsubstantiated Quantitative Analysis of Emissions

As discussed above, the FEIR concludes that the proposed Project would generate an annual increase in construction-related GHG emissions of 200 metric tons of CO₂ equivalents per year (“MT CO₂e/year”) and operational GHG emissions of -2,767 MT CO₂e/year (Appendix M, p. 30). However, the FEIR’s quantitative GHG analysis is unsubstantiated. As previously discussed, when we reviewed the Project’s CalEEMod output files, provided in the Air Quality Report as Appendix K to the FEIR, we found that several of the values inputted into the model are not consistent with information disclosed in the FEIR and associated documents. As a result, the model underestimates the Project’s GHG emissions, and the FEIR’s quantitative GHG analysis should not be relied upon to determine Project significance. An updated EIR should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the surrounding environment.

2) Incorrect Reliance on the City’s E-CAP

As discussed above, the FEIR relies upon the Project’s consistency with the Escondido Climate Action Plan (“E-CAP”). Specifically, according to the GHG Report:

“[T]he Project would generate a net negative amount of GHG emissions (-2,388.67 CO₂e) after accounting for the GHG emissions associated with the existing hospital and would not exceed the E-CAP’s screening threshold of 2,500 CO₂e, therefore would be consistent with the City’s E-CAP... As such, the Project would not conflict or obstruct implementation of the E-CAP, and

therefore, impacts associated with consistency with the E-CAP would be less than significant” (Appendix M, p. 31).

As you can see in the excerpt above, the FEIR concludes that the Project would have a less than significant GHG impact based on the Project’s consistency with the City’s E-CAP. However, according to the GHG Report:

“It should be noted that the *E-CAP is not a certified GHG reduction plan beyond 2020*... For the E-CAP to be a certified GHG reduction plan beyond 2020, it will have to incorporate reduction measures that align with SB 32 and EO S-3-05. The E-CAP update process is underway but the City has yet to adopt or approve the update that would enable this project to tier from the E-CAP” (emphasis added) (Appendix M, p. 22).

As you can see in the excerpt above, the GHG Report explicitly states that the City’s E-CAP is outdated, and no updated E-CAP is available that would allow the Project to rely on the City’s E-CAP for a project-level significance determination. As a result, the FEIR’s less than significant impact conclusion regarding the Project’s consistency with the City’s E-CAP is incorrect and should not be relied upon.

3) SANDAG’s San Diego Forward: The Regional Plan and CARB’s Scoping Plan are not Qualified GHG Reduction Plans

As previously discussed, the FEIR relies upon the Project’s consistency with SANDAG’s *San Diego Forward: The Regional Plan* and CARB’s *Scoping Plan* to determine Project GHG significance. However, these plans do not qualify as adequate GHG reduction plans or Climate Action Plans (“CAP”). CEQA Guidelines §§ 15064.4(b)(3) and 15183(b) allows a lead agency to consider a project’s consistency with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. When read in conjunction, CEQA Guidelines §§ 15064.4(b)(3) and 15183.5(b)(1) make clear qualified GHG reduction plans or CAPs should include the following features:

- (1) **Inventory:** Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities (e.g., projects) within a defined geographic area (e.g., lead agency jurisdiction);
- (2) **Establish GHG Reduction Goal:** Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
- (3) **Analyze Project Types:** Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- (4) **Craft Performance Based Mitigation Measures:** Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- (5) **Monitoring:** Establish a mechanism to monitor the CAP progress toward achieving said level and to require amendment if the plan is not achieving specified levels;

Collectively, the above-listed features tie qualitative measures to quantitative results, which in turn become binding via proper monitoring and enforcement by the jurisdiction—all resulting in real GHG

reductions for the jurisdiction as a whole, and substantial evidence demonstrating that a project’s incremental contribution is not cumulatively considerable. Here, however, the FEIR fails to demonstrate that these plans and policies include the above-listed requirements to be considered qualified GHG Reduction Plans for the City. As such, the FEIR leaves an analytical gap showing that compliance with said plans can be used for a project-level significance determination for the Project. Thus, the FEIR’s GHG analysis regarding SANDAG’s *San Diego Forward: The Regional Plan* and CARB’s *Scoping Plan* should not be relied upon to determine Project significance.

4) Failure to Demonstrate Consistency with SANDAG’s San Diego Forward: The Regional Plan

As discussed above, the FEIR relies upon the Project’s consistency with the SANDAG’s San Diego Forward: The Regional Plan. Specifically, according to the GHG Report:

“The proposed project was shown to be consistent with SANDAG’s San Diego Forward: The Regional Plan, Senate Bill 32, and Executive Order S-3-05. The proposed project would not conflict with any plans adopted with the purpose of reducing GHG emissions; therefore, the proposed project’s impacts on GHG emissions would be less than significant” (Appendix M, p. 2)

The FEIR goes on to include a consistency analysis, claiming that that numerous of the policy objectives and strategies are not applicable to the proposed Project (see excerpt below) (Appendix M, p. 32-34, Table 7).

Category	Policy Objective or Strategy	Consistency Analysis
<i>The Regional Plan – Policy Objectives</i>		
Mobility Choices	Provide safe, secure, healthy, affordable, and convenient travel choices between the places where people live, work, and play.	<i>Not applicable.</i> The proposed Project would not impair the ability of SANDAG to provide additional transportation choices within the region.
Mobility Choices	Take advantage of new technologies to make the transportation system more efficient and environmentally friendly.	<i>Not applicable.</i> The proposed Project would not impair the ability of SANDAG to implement new technologies within the transportation system within the region.
Habitat and Open Space Preservation	Focus growth in areas that are already urbanized, allowing the region to set aside and restore more open space in our less developed areas.	<i>Consistent.</i> The proposed Project would not impact any open space. The proposed Project would redevelop existing hospital campus land to provide high density housing.
Habitat and Open Space Preservation	Protect and restore our region’s urban canyons, coastlines, beaches, and water resources.	<i>Consistent.</i> The proposed Project would be located on an already utilized site that has been used for medical services. The proposed Project would not impact any open space.
Regional Economic Prosperity	Invest in transportation projects that provide access for all communities to a variety of jobs with competitive wages.	<i>Not Applicable.</i> The proposed Project would not impair the ability of SANDAG to invest in transportation projects available to all members of the Community.
Regional Economic Prosperity	Build infrastructure that makes the movement of freight in our community more efficient and environmentally friendly.	<i>Not Applicable.</i> The proposed Project does not propose regional freight movement, nor would it impair SANDAG’s ability to preserve and expand options for regional freight movement.

However, the FEIR’s reliance on the Project’s consistency with SANDAG’s San Diego Forward: The Regional Plan is incorrect. As demonstrated in the table above, the FEIR repeatedly states that “the proposed Project would not impair the ability” of SANDAG to implement policy objectives or strategies (Appendix M, p. 32-34, Table 7). However, simply not impairing SANDAG’s ability to implement policy objectives or strategies does not guarantee that the Project would actually be consistent with the plan’s policy objectives and strategies. Moreover, simply concluding that the Project would not impede the

implementation of policy objectives and strategies does not provide substantial evidence that the Project would not result in a significant GHG impact. As such, the FEIR’s reliance on SANDAG’s *San Diego Forward: The Regional Plan* is incorrect, and the subsequent less-than-significant impact conclusion should not be relied upon.

5) Failure to Demonstrate Consistency with CARB’s Scoping Plan

As discussed above, the FEIR relies upon the Project’s consistency with CARB’s *Scoping Plan* in order to conclude that the Project would result in a less than significant GHG impact (Appendix M, p. 30). However, review of CARB’s *Scoping Plan* reveals that the proposed Project is inconsistent with these measures, including but not limited to the analysis below:

CARB 2017 Scoping Plan³⁴	
Measures – Construction	
Enforce idling time restrictions for construction vehicles	Here, while the FEIR states that “[t]he Project would also be required to comply with CARB’s Airborne Toxics Control Measures, which restrict heavy-duty diesel vehicle idling time to 5 minutes,” the FEIR and associated documents fail to demonstrate how the Project would implement, monitor, and enforce this measure. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.
Require construction vehicles to operate with the highest tier engines commercially available	Here, the FEIR and associated documents fail to mention or require construction vehicles to operate with the highest tier engines commercially available. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.
Divert and recycle construction and demolition waste, and use locally-sourced building materials with a high recycled material content to the greatest extent feasible	Here, while the FEIR states that “50% of its construction and demolition waste [would be] diverted from landfills” in accordance with Title 24 Part 11, the FEIR and associated documents fail to demonstrate how the Project would implement, monitor, and enforce this measure (p. 5-24). Furthermore, the FEIR also fails to mention or discuss the feasibility of using locally-sourced

³⁴ California Air Resources Board (“CARB”) (Jan. 2017) 2017 Scoping Plan, Appendix B-Local Action, *available at: https://ww3.arb.ca.gov/cc/scopingplan/2030sp_appb_localaction_final.pdf*, p. 8-10.

	<p>building materials with a high recycled material content. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Utilize existing grid power for electric energy rather than operating temporary gasoline/diesel powered generators</p>	<p>Here, the FEIR and associated documents fail to mention or evaluate the feasibility of utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel generators. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Increase use of electric and renewable fuel powered construction equipment and require renewable diesel fuel where commercially available</p>	<p>Here, the FEIR and associated documents fail to indicate that electric or renewable fuel will be used to power construction equipment. In addition, the FEIR fails to mention or require renewable diesel fuel where commercially available. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require diesel equipment fleets to be lower emitting than any current emission standard</p>	<p>Here, while the FEIR and associated documents discuss existing emission standards, the FEIR fails to evaluate the feasibility of or require diesel equipment fleets to be lower emitting. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Measures – Operation</p>	
<p>Allow for new construction to install fewer on-site parking spaces than required by local municipal building code, if appropriate</p>	<p>Here, the FEIR and associated documents fail to mention or allow the Project to install fewer on-site parking spaces than required by local municipal building code. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>

<p>Dedicate on-site parking for shared vehicles</p>	<p>Here, while the MMRP states the Project would include a “ride-share hub that includes a pick-up and drop-off area,” the FEIR and associated documents fail to discuss the feasibility of or require on-site parking for shared vehicles (p. MMRP-11). As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Provide adequate, safe, convenient, and secure on-site bicycle parking and storage in multi-family residential projects and in non-residential projects</p>	<p>Here, while the FEIR references the City of Escondido Bicycle Master Plan, the FEIR and associated documents fail to discuss the feasibility of or require on-site bicycle parking and storage whatsoever (p. 4.6-15). As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require on-site renewable energy generation</p>	<p>Here, the Air Quality Report discusses the Escondido Climate Action Plan, specifically measures that “include [the] installation of solar water heaters to replace natural gas water heaters” (Appendix K, p. 17). However, the FEIR and associated documents fail to demonstrate how the Project would implement, monitor, and enforce this measure. Furthermore, the FEIR and associated documents fail to discuss the feasibility of or require other on-site renewable energy generation. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Prohibit wood-burning fireplaces in new development, and require replacement of wood-burning fireplaces for renovations over a certain size developments</p>	<p>Here, the FEIR and associated documents fail to prohibit wood-burning fireplaces. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require cool roofs and “cool parking” that promotes cool surface treatment for new parking</p>	<p>Here, while the GHG Report references CALGreen, which has cool/solar-reflective roof standards, the FEIR and associated documents fail to demonstrate</p>

<p>facilities as well as existing surface lots undergoing resurfacing</p>	<p>how the Project would implement, monitor, and enforce this measure (Appendix M, p. 14). Furthermore, the FEIR and associated documents fail to discuss the feasibility of or require “cool parking” whatsoever. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination</p>
<p>Require solar-ready roofs</p>	<p>Here, the FEIR and associated documents fail to mention or discuss the feasibility of requiring solar-ready roofs. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require organic collection in new developments</p>	<p>Here, while the FEIR states that “organic waste would be recycled in accordance with AB 1826,” the FEIR and associated documents fail to demonstrate how the Project would implement, monitor, and enforce this measure (p. 5-61). As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Achieve Zero Net Energy performance building standards prior to dates required by the Energy Code</p>	<p>Here, the FEIR and associated documents fail to demonstrate that the Project would achieve Zero Net Energy performance building standards prior to dates required by the Energy Code. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Encourage new construction, including municipal building construction, to achieve third-party green building certifications, such as the GreenPoint Rated program, LEED rating system, or Living Building Challenge</p>	<p>Here, the FEIR and associated documents fail to demonstrate that the Project would achieve any third-party green building certifications, such as GreenPoint rated program, LEED rating system, or Living Building Challenge. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require the design of bike lanes to connect to the regional bicycle network</p>	<p>Here, while the FEIR proposes new bike lines, the FEIR and associated documents fail to mention or</p>

	require a regional bicycle network. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.
Expand urban forestry and green infrastructure in new land development	Here, the FEIR and associated documents fail to mention urban forestry or green infrastructure whatsoever. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.
Require preferential parking spaces for park and ride to incentivize carpooling, vanpooling, commuter bus, electric vehicles, and rail service use	Here, the FEIR and associated documents fail to require preferential parking spaces for park and ride to incentivize carpooling, vanpooling, commuter bus, electric vehicles, and rail service use. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.
Require a transportation management plan for specific plans which establishes a numeric target for non-SOV travel and overall VMT	Here, while the FEIR references the Regional Transportation Improvement Program, the FEIR and associated documents fail to mention or require a transportation management plan for the Project itself. The FEIR also fails to mention or establish a numeric target for non-SOV travel and overall VMT. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.
Develop a rideshare program targeting commuters to major employment centers	Here, while the MMRP states the Project would include a “ride-share hub that includes a pick-up and drop-off area,” the FEIR and associated documents fail to discuss the feasibility of or require a rideshare program targeting commuters to major employment centers (p. MMRP-11). As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.
Require the design of bus stops/shelters/express lanes in new developments to promote the usage of mass-transit	Here, the FEIR and associated documents fail to mention or require the design of bus stops/shelters/express lanes, or the promotion of

	<p>mass-transit. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require gas outlets in residential backyards for use with outdoor cooking appliances such as gas barbeques if natural gas service is available</p>	<p>Here, the FEIR and associated documents fail to mention or require gas outlets in residential backyards for use with outdoor cooking appliances whatsoever. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require the installation of electrical outlets on the exterior walls of both the front and back of residences to promote the use of electric landscape maintenance equipment</p>	<p>Here, the FEIR and associated documents fail to mention or require the installation of electrical outlets on the exterior walls of both the front and back of residences to promote the use of electric landscape maintenance equipment. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require the design of the electric outlets and/or wiring in new residential unit garages to promote electric vehicle usage</p>	<p>Here, the FEIR and associated documents fail to mention or require the design of the electric outlets and/or wiring in new residential unit garages to promote electric vehicle usage. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Provide electric outlets to promote the use of electric landscape maintenance equipment to the extent feasible on parks and public/quasi-public lands</p>	<p>Here, the FEIR and associated documents fail to mention or provide electric outlets to promote the use of electric landscape maintenance equipment to the extent feasible on parks and public/quasi-public lands whatsoever. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require each residential unit to be “solar ready,” including installing the appropriate hardware and proper structural engineering</p>	<p>Here, the FEIR and associated documents fail to mention or require each residential unit to be “solar ready,” including installing the appropriate hardware and proper structural engineering. As such, the proposed Project is not consistent with</p>

	<p>this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require the installation of energy conserving appliances such as on-demand tank-less water heaters and whole-house fans</p>	<p>Here, the FEIR and associated documents fail to mention or require the installation of energy conserving appliances, such as on-demand tank-less water heaters and whole-house fans. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require each residential and commercial building equip buildings with energy efficient AC units and heating systems with programmable thermostats/timers</p>	<p>Here, the FEIR and associated documents fail to mention or require that the Project be equipped with energy efficient AC units and heating systems with programmable thermostats/timers. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require large-scale residential developments and commercial buildings to report energy use, and set specific targets for per-capita energy use</p>	<p>Here, the FEIR and associated documents fail to mention or require that the Project report energy use, or set specific targets for per-capita energy use. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require each residential and commercial building to utilize low flow water fixtures such as low flow toilets and faucets (see CALGreen Divisions 4.3 and 5.3 as well as Appendices A4.3 and A5.3)</p>	<p>Here, while the GHG Report states that the “proposed project would utilize water saving features including low-flow fixtures and non-potable water for landscape irrigation,” the FEIR and associated documents fail to demonstrate how the Project would implement, monitor, and enforce this measure (Appendix M, p. 36). As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.</p>
<p>Require the use of energy-efficient lighting for all street, parking, and area lighting</p>	<p>Here, while the FEIR and associated documents discuss energy-efficient lighting, the FEIR fails to discuss the feasibility of or require the use of energy-efficient lighting for all street, parking, and area lighting. As such, the proposed Project is not consistent with this measure and the FEIR lacks</p>

	substantial evidence to support its consistency determination.
Require the landscaping design for parking lots to utilize tree cover and compost/mulch	Here, while the FEIR and associated documents acknowledge that the Project will include landscaping, the FEIR fails to indicate that the Project will include trees, compost, or mulch. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.
Require the development project to propose an off-site mitigation project which should generate carbon credits equivalent to the anticipated GHG emission reductions. This would be implemented via an approved protocol for carbon credits from California Air Pollution Control Officers Association (CAPCOA), the California Air Resources Board, or other similar entities determined acceptable by the local air district	Here, the FEIR and associated documents fail to mention or require the Project to propose an off-site mitigation project to generate carbon credits. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.
Require the project to purchase carbon credits from the CAPCOA GHG Reduction Exchange Program, American Carbon Registry (ACR), Climate Action Reserve (CAR) or other similar carbon credit registry determined to be acceptable by the local air district	Here, the FEIR and associated documents fail to require the Project to purchase carbon credits whatsoever. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.
Consider generating or purchasing local and California-only carbon credits as the preferred mechanism to implement its offsite mitigation measure for GHG emissions and that will facilitate the State's efforts in achieving the GHG emission reduction goal	Here, the FEIR and associated documents fail to consider or indicate that the proposed Project will generate or purchase any local or California-only carbon credits. As such, the proposed Project is not consistent with this measure and the FEIR lacks substantial evidence to support its consistency determination.

As the above table indicates, the FEIR and associated documents fail to provide sufficient information and analysis to determine Project consistency with various measures under CARB's *Scoping Plan*. Thus, we cannot verify that the Project would be consistent with CARB's *Scoping Plan*. As a result, we recommend that an updated EIR be prepared to include further information and analysis demonstrating the Project's consistency.

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional

information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Start date and time 09/16/20 13:14:45

AERSCREEN 16216

Palomar Heights Construction

Palomar Heights Construction

----- DATA ENTRY VALIDATION -----

METRIC

ENGLISH

** AREADATA **

Emission Rate:	0.120E-02 g/s	0.950E-02 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	305.10 meters	1000.98 feet
Area Source Width:	183.00 meters	600.39 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	152213	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

2020.09.16_PalomarHeights_Construction.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 09/16/20 13:15:32

Running AERMOD

Processing Winter

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 35

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Spring

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 30

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 35

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Summer

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 35

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Autumn

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 35

***** WARNING MESSAGES *****

*** NONE ***

FLOWSECTOR ended 09/16/20 13:15:52

REFINE started 09/16/20 13:15:52

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0

***** WARNING MESSAGES *****

*** NONE ***

REFINE ended 09/16/20 13:15:53

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

Ending date and time 09/16/20 13:15:55

Concentration	Distance	Elevation	Diag	Season/Month	Zo sector	Date	H0	U*	W*	DT/DZ	ZICNV
ZIMCH	M-O	LEN	ZO	BOWEN	ALBEDO	REF WS	HT	REF TA	HT		
0.67365E+00	1.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.71825E+00	25.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.75959E+00	50.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.79659E+00	75.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.82993E+00	100.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.86019E+00	125.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.88821E+00	150.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
* 0.89215E+00	154.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.88623E+00	175.00	0.00	30.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.63963E+00	200.00	0.00	30.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.52426E+00	225.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.45465E+00	250.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.39916E+00	275.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.35901E+00	300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.32858E+00	325.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.30215E+00	350.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.27929E+00	375.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.25909E+00	400.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.24132E+00	425.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.22556E+00	450.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.21130E+00	475.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.19868E+00	500.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.18717E+00	525.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.17683E+00	550.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.16731E+00	575.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.15870E+00	600.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.15090E+00			625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.14363E+00			650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.13694E+00			675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.13081E+00			700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12511E+00			725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11981E+00			750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11492E+00			775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11039E+00			800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10613E+00			825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10209E+00			850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.98326E-01			875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.94810E-01			900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.91521E-01			925.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.88436E-01			950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.85538E-01			975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.82764E-01			1000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.80140E-01			1025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.77641E-01			1050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.75280E-01			1075.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.73046E-01			1100.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.70930E-01			1125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.68923E-01			1150.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.67017E-01			1175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.65200E-01			1200.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.63445E-01			1225.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.61773E-01			1250.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.60179E-01			1275.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.58658E-01			1300.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.57204E-01			1325.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.55814E-01			1350.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.54471E-01			1375.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.53185E-01			1400.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.51952E-01			1425.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.50769E-01			1450.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.49634E-01			1475.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.48543E-01			1500.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.47495E-01			1525.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.46473E-01			1550.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.45490E-01			1575.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.44543E-01			1600.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.43630E-01			1625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.42750E-01			1650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.41903E-01			1675.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.41083E-01			1700.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.40291E-01			1725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.39527E-01			1750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.38788E-01			1775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.38073E-01			1800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.37382E-01			1825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.36712E-01			1850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.36064E-01			1875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.35433E-01			1900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.34818E-01			1925.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.34222E-01			1950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.33643E-01			1975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.33082E-01			2000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.32537E-01			2025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.32008E-01			2050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.31491E-01			2075.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.30985E-01			2100.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.30493E-01			2125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.30015E-01			2150.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.29550E-01			2175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.29098E-01			2200.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.28657E-01			2225.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.28228E-01			2250.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.27813E-01			2275.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.27407E-01			2300.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.27010E-01			2325.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.26624E-01			2350.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.26247E-01			2375.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.25879E-01			2400.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.25520E-01			2425.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.25170E-01			2450.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.24828E-01			2475.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.24494E-01			2500.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.24168E-01			2525.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.23849E-01			2550.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.23537E-01			2575.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.23232E-01			2600.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.22935E-01			2625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.22644E-01			2650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.22360E-01			2675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.22082E-01			2700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.21810E-01			2725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.21544E-01			2750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.21284E-01			2775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.21029E-01			2800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.20780E-01			2825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.20535E-01			2850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.20296E-01			2875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.20061E-01			2900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.19830E-01			2925.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.19603E-01			2950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.19381E-01			2975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.19164E-01			3000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.18950E-01			3025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.18741E-01			3050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.18535E-01			3075.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.18333E-01			3100.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.18134E-01			3125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.17938E-01			3150.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.17747E-01			3175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.17559E-01			3200.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.17374E-01			3225.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.17193E-01			3250.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.17015E-01			3275.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.17053E-01			3300.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.16878E-01			3325.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.16706E-01			3350.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.16537E-01			3375.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.16370E-01			3400.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.16207E-01			3425.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.16047E-01			3450.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.15889E-01			3475.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.15734E-01			3500.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.15581E-01			3525.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.15431E-01			3550.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.15284E-01			3575.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.15139E-01			3600.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.14996E-01			3625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.14856E-01			3650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.14718E-01			3675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.14582E-01			3700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.14448E-01			3725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.14316E-01			3750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.14187E-01			3775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.14059E-01			3800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13934E-01			3825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13810E-01			3850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13688E-01			3875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13568E-01			3900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13450E-01			3925.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13334E-01			3950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0								
0.13219E-01			3975.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.13106E-01			4000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12995E-01			4025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12885E-01			4050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12777E-01			4075.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12671E-01			4100.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12566E-01			4125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12463E-01			4150.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12361E-01			4175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12260E-01			4200.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12161E-01			4225.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12063E-01			4250.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11967E-01			4275.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11872E-01			4300.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11778E-01			4325.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11685E-01			4350.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11594E-01			4375.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11504E-01			4400.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11415E-01			4425.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11328E-01			4450.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11241E-01			4475.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11156E-01			4500.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11072E-01			4525.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10988E-01			4550.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10906E-01			4575.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10825E-01			4600.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10746E-01			4625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10666E-01			4650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10589E-01			4675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10512E-01			4700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10436E-01			4725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10361E-01			4750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10286E-01			4775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10213E-01			4800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10141E-01			4825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10069E-01			4850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.99989E-02			4875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.99292E-02			4900.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.98603E-02			4924.99	0.00	15.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.97923E-02			4950.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.97250E-02			4975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.96586E-02			5000.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										

Start date and time 09/16/20 13:16:34

AERSCREEN 16216

Palomar Heights Operation

Palomar Heights Operation

----- DATA ENTRY VALIDATION -----

METRIC

ENGLISH

** AREADATA **

Emission Rate:	0.0215 g/s	0.171 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	305.10 meters	1000.98 feet
Area Source Width:	183.00 meters	600.39 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	152213	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

2020.09.16_PalomarHeights_Operation.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 09/16/20 13:17:23

Running AERMOD

Processing Winter

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 35

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Spring

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 30

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 35

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Summer

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 35

***** WARNING MESSAGES *****

*** NONE ***

Running AERMOD

Processing Autumn

Processing surface roughness sector 1

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 35

***** WARNING MESSAGES *****

*** NONE ***

FLOWSECTOR ended 09/16/20 13:17:42

REFINE started 09/16/20 13:17:42

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0

***** WARNING MESSAGES *****

*** NONE ***

REFINE ended 09/16/20 13:17:43

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

Ending date and time 09/16/20 13:17:45

Concentration	Distance	Elevation	Diag	Season/Month	Zo sector	Date	H0	U*	W*	DT/DZ	ZICNV
ZIMCH	M-O	LEN	ZO	BOWEN	ALBEDO	REF WS	HT	REF TA	HT		
0.12116E+02	1.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.12918E+02	25.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.13661E+02	50.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.14327E+02	75.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.14926E+02	100.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.15471E+02	125.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.15975E+02	150.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
* 0.16045E+02	154.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.15939E+02	175.00	0.00	30.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.11504E+02	200.00	0.00	30.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.94289E+01	225.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.81769E+01	250.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.71789E+01	275.00	0.00	25.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.64569E+01	300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.59095E+01	325.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.54343E+01	350.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.50231E+01	375.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.46597E+01	400.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.43401E+01	425.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.40566E+01	450.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.38002E+01	475.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.35732E+01	500.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.33662E+01	525.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.31803E+01	550.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.30091E+01	575.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0					
0.28543E+01	600.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999. 21. 6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.27140E+01			625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.25833E+01			650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.24628E+01			675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.23527E+01			700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.22501E+01			725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.21548E+01			750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.20668E+01			775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.19854E+01			800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.19088E+01			825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.18361E+01			850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.17684E+01			875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.17052E+01			900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.16460E+01			925.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.15905E+01			950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.15384E+01			975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.14885E+01			1000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.14413E+01			1025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.13964E+01			1050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.13539E+01			1075.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.13137E+01			1100.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12757E+01			1125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12396E+01			1150.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.12053E+01			1175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11726E+01			1200.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11411E+01			1225.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.11110E+01			1250.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0										
0.10823E+01			1275.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.10550E+01	1300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.10288E+01	1325.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.10038E+01	1350.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.97967E+00	1375.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.95653E+00	1400.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.93436E+00	1425.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.91308E+00	1450.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.89267E+00	1475.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.87305E+00	1500.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.85420E+00	1525.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.83582E+00	1550.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.81813E+00	1575.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.80110E+00	1600.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.78469E+00	1625.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.76887E+00	1650.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.75363E+00	1675.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.73887E+00	1700.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.72464E+00	1725.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.71090E+00	1750.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.69761E+00	1775.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.68475E+00	1800.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.67232E+00	1825.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.66027E+00	1850.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.64861E+00	1875.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.63726E+00	1900.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.62620E+00	1925.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.61548E+00	1950.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0						

1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.60507E+00			1975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.59498E+00			2000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.58518E+00			2025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.57566E+00			2050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.56636E+00			2075.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.55727E+00			2100.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.54843E+00			2125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.53983E+00			2150.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.53146E+00			2175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.52333E+00			2200.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.51540E+00			2225.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.50769E+00			2250.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.50021E+00			2275.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.49291E+00			2300.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.48578E+00			2325.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.47883E+00			2350.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.47205E+00			2375.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.46543E+00			2400.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.45898E+00			2425.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.45268E+00			2450.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.44654E+00			2475.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.44053E+00			2500.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.43467E+00			2525.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.42893E+00			2550.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.42332E+00			2575.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.41784E+00			2600.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.41249E+00			2625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.40726E+00			2650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.40215E+00			2675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.39715E+00			2700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.39226E+00			2725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.38748E+00			2750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.38280E+00			2775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.37821E+00			2800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.37373E+00			2825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.36933E+00			2850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.36503E+00			2875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.36080E+00			2900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.35664E+00			2925.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.35257E+00			2950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.34857E+00			2975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.34466E+00			3000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.34082E+00			3025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.33706E+00			3050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.33336E+00			3075.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.32971E+00			3100.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.32613E+00			3125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.32262E+00			3150.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.31918E+00			3175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.31580E+00			3200.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.31248E+00			3225.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.30922E+00			3250.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.30602E+00			3275.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.30670E+00			3300.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.30355E+00			3325.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.30045E+00			3350.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.29741E+00			3375.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.29442E+00			3400.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.29149E+00			3425.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.28860E+00			3450.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.28576E+00			3475.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.28297E+00			3500.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.28023E+00			3525.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.27753E+00			3550.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.27488E+00			3575.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.27227E+00			3600.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.26970E+00			3625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.26718E+00			3650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.26470E+00			3675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.26225E+00			3700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.25985E+00			3725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.25748E+00			3750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.25515E+00			3775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.25286E+00			3800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.25060E+00			3825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.24837E+00			3850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.24618E+00			3875.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.24403E+00			3900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.24190E+00			3925.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.23981E+00			3950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
0.23775E+00			3975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0

1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.23572E+00			4000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.23372E+00			4025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.23175E+00			4050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.22980E+00			4075.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.22789E+00			4100.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.22600E+00			4125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.22414E+00			4150.00	0.00	10.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.22231E+00			4175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
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1.000	1.50	0.35	0.50	10.0	310.0	2.0									
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1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.20852E+00			4375.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.20690E+00			4400.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.20531E+00			4425.00	0.00	10.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
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0.20217E+00			4475.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.20064E+00			4500.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.19912E+00			4525.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
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1.000	1.50	0.35	0.50	10.0	310.0	2.0									
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1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.19470E+00			4600.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
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1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.19044E+00	4675.00	0.00	15.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.18905E+00	4700.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.18768E+00	4725.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.18634E+00	4750.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.18500E+00	4775.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.18369E+00	4800.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.18238E+00	4825.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.18110E+00	4850.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.17983E+00	4875.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.17858E+00	4900.00	0.00	5.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.17734E+00	4925.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.17612E+00	4950.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.17491E+00	4975.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.17371E+00	5000.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0					
1.000	1.50	0.35	0.50	10.0	310.0	2.0												

EXHIBIT D

City of Escondido

Adopted Climate Action Plan

File: PHG 10-0016

Prepared for:



City of Escondido
Community Development Department
City Hall, First Floor
201 North Broadway
Escondido, California 92025

Prepared by:



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Adopted
December 4, 2013
Resolution 2013-153

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- Jeff Ritchie, Vice President, EDCO Waste and Recycling Services
- Mike Calandra, Senior Research Analyst, San Diego Association of Governments
- Susan Freedman, Senior Regional Energy Planner, San Diego Association of Governments

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Acronyms

AB 32	Assembly Bill 32, The California Climate Change Solutions Act of 2006
AEP	Association of Environmental Professionals
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CalGreen	California Green Building Standard
CAP	Climate Action Plan
CARB	California Air Resources Board
CAS	Climate Adaption Strategy
CAT	California Action Team
CCAR	California Climate Action Registry
CCAT	California Climate Action Team
CCR	California Code of Regulations
CCSE	California Center for Sustainable Energy
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
CIWMB	California Integrated Waste Management Board
CSI	California Solar Initiative
CWSRF	Clean Water State Revolving Funds
E-CAP	Escondido Climate Action Plan
ECM	Energy Conservation Measures
EECBG	Energy Efficiency Community Block Grants
EMFAC2007	On-Road Emission Factors published by the CARB in 2007
GHG	Greenhouse Gas
kWh	Kilowatt hours
LCFS	Low Carbon Fuel Standard
LGOP	Local Government Operations Protocol
MPO	Metropolitan Planning Organization
MT CO ₂ e	Metric Tons Carbon Dioxide Equivalent
NCTD	North County Transit District
OPR	California Office of Planning and Research
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SANDAG	San Diego Association of Governments
SB	Senate Bill

ACRONYMS

SCP	Sustainable Communities Project
SCS	Sustainable Communities Strategy
SDAPCD	San Diego Air Pollution Control District
SDG&E	San Diego Gas and Electric Company
SRI	Solar Reflective Index
TDM	Transportation Demand Management
TPP	Transit Priority Project
UNFCCC	United Nations Framework Convention on Climate Change
URBEMIS 2007	Urban Emissions Model, version 9.2 published in June 2007
USEPA	United States Environmental Protection Agency
VMT	Vehicle miles traveled

Executive Summary

The City of Escondido, in concert with adopted state and federal legislation, is committed to providing a more livable and economically vibrant community through the incorporation of greenhouse gas (GHG) emission reduction measures that help preserve community assets. By using energy more efficiently, harnessing renewable energy to power buildings, recycling waste, conserving and recycling water, and enhancing access to sustainable transportation modes, Escondido will keep dollars in the local economy, create new green jobs and improve community quality of life. The efforts toward reducing GHG emissions described in this report would be done in coordination with the City's land use decisions. The foundation of planning land use decisions is found in the General Plan policies and programs.

Through this Escondido Climate Action Plan (E-CAP), the City has established goals and policies that incorporate environmental responsibility into its daily management of residential, commercial and industrial growth, education, energy and water use, air quality, transportation, waste reduction, economic development, and open space and natural habitats to further their commitment.

The first step in completing the E-CAP was to update Escondido's GHG emissions inventory. In February 2011, Escondido completed an inventory of 2005 emissions through participation in the San Diego Foundation's Regional Climate Protection Initiative. The report included an inventory of both municipal and community-wide GHG emissions. The 2005 emissions amounted to 1,019,318 metric tons of carbon dioxide equivalents (MT CO₂e) community-wide and 20,861 MT CO₂e from municipal operations. The methodology used to estimate municipal emissions in the previous report is similar to the methodology used in this report. However, there are three key differences between the previous report and this one in the methodologies used for the community-wide inventory.

- The estimate for vehicle miles traveled (VMT) used in the previous inventory calculations includes pass-through trips. These are trips that begin and end outside of the City boundaries, but do pass-through Escondido. Because the City does not have control over these trips, they have been omitted from the revised inventory.
- Emissions from water have been calculated differently in the revised inventory. The previous inventory includes emissions from wastewater and the electricity associated with local treatment and distribution of water. In addition to these emissions, the revised inventory includes the emissions associated with the electricity used to bring imported water to Escondido.
- The previous emission inventory does not include emissions associated with the transportation of waste to the landfill. These emissions are included in the revised 2005 inventory.

The revised community-wide inventory in this E-CAP totaled 927,266 MT CO₂e, which is 92,052 MT CO₂e below the previous inventory. Table ES-1 contains the breakdown of emissions for both the previous 2005 inventory and the revised 2005 inventory in the E-CAP.

EXECUTIVE SUMMARY

Table ES-1 2005 Emissions Comparison		
Source Category	Metric tons of CO₂e	
	2005 (Previous)	2005 (Revised)
Transportation ^a	509,904	375,769
Energy	427,305	419,177
Area Sources	43,136	53,287
Water and Wastewater ^b	4,008	28,384
Solid Waste ^c	34,964	48,361
Construction ^d	-	2,288
Total	1,019,318	927,266
<p>Note: Mass emissions of CO₂e shown in the table are rounded to the nearest whole number. Totals shown may not add up due to rounding.</p> <p>^a The previous methodology for calculating transportation emissions includes the pass-through vehicle trips in the City of Escondido.</p> <p>^b Previous emissions only include direct emissions from the wastewater treatment plant. The updated inventory also includes emissions associated with the electricity to pump water from non-local sources.</p> <p>^c The previous inventory does not include emissions associated with transporting waste to the landfill; the updated inventory does include these emissions.</p> <p>^d Construction emissions were not included in the previous inventory; the updated inventory includes estimates of CO₂e emissions associated with the use of construction equipment.</p>		

In addition to the 2005 revised inventory, the E-CAP includes GHG inventories of community-wide and municipal sources based on the most recent data available for the year 2010. Sources of emissions include transportation, electricity and natural gas use, landscaping, water and wastewater pumping and treatment, and treatment and decomposition of solid waste. Escondido's 2010 inventory amounted to 886,118 MT CO₂e community-wide and 18,143 MT CO₂e from municipal operations.

Following the state's adopted AB 32 GHG reduction target, Escondido has set a goal to reduce emissions back to 1990 levels by the year 2020. This target was calculated as a 15 percent decrease from 2005 levels, as recommended in the AB 32 Scoping Plan. The estimated community-wide emissions for the year 2020, based on population and housing growth projections associated with the assumptions used in the proposed General Plan Update, are 992,583 MT CO₂e. In order to reach the reduction target, Escondido must offset this growth in emissions and reduce community-wide emissions to 788,176 MT CO₂e by the year 2020.

The development of this E-CAP coincides with Escondido's General Plan Update. A community-wide emissions inventory is also calculated for the horizon year of 2035. The residential and commercial growth rates from the General Plan Update were used to estimate the 2035 emissions.

The City of Escondido has already demonstrated its commitment to conserve energy and reduce emissions through a variety of programs and policies. Programs to reduce emissions include flexible employee work schedules, energy retrofits of City facilities, participation in the San Diego Association of

Governments (SANDAG) Energy Roadmap Program, water conservation education efforts, and coordination with SANDAG and North County Transit District to expand transit systems.

Various state policies have enacted programs that will also contribute to reduced GHG emissions in Escondido by the year 2020. Some of these policies include updated building codes for energy efficiency, the low carbon fuel standard, Pavley vehicle emissions standards, and the Renewables Portfolio Standard for utility companies. By supporting the state in the implementation of these measures, Escondido will experience substantial GHG emissions reductions. These GHG reductions from the State measures are accounted for in the reduced inventories.

In order to reach the reduction target, Escondido would also implement the additional local reduction measures described in this report. These measures encourage energy efficiency and renewable energy in buildings, transit oriented planning, water conservation, and increase waste diversion. Table ES-2, below, summarizes the community wide emissions for 2010, 2020, and the reduced 2020 inventory with the inclusion of the proposed reduction measures.

Table ES-2 Projected 2020 GHG Emissions Comparison				
Source Category	Metric tons of CO₂e			
	2010	2020	Reduced 2020	% Reduced
Transportation	368,622	419,741	310,662	26%
Energy	395,565	441,025	357,914	19%
Area Sources	52,559	54,977	54,451	1%
Water and Wastewater	25,360	27,278	21,979	19%
Solid Waste	41,724	47,273	41,061	13%
Construction	2,288	2,288	2,059	10%
Total	886,118	992,583	788,127	21%
Emission Reduction Target ^a		788,176		
Note: Mass emissions of CO ₂ e shown in the table are rounded to the nearest whole number. Totals shown may not add up due to rounding. ^a The reduction target for 2020 is based on a 15% decrease from Escondido's revised 2005 emissions inventory.				

Table ES-3 summarizes the 2035 emissions for Escondido based on the anticipated growth rates included in Escondido's General Plan update. After 2020, GHG emissions would continue to grow; however, the growth in Escondido's future emissions would be offset by the reductions from incorporation of the E-CAP measures. The reduction measures included in the E-CAP have been developed to meet the 2020 reduction target; however the implementation of the E-CAP would require periodic updates to ensure that the City is continually tracking GHG emissions and making adjustments as necessary to ensure that future targets are met. The 2035 reduced inventory represents the estimated GHG emissions from Escondido with the continued implementation of the reduction measures outlined in the E-CAP as well as the assumption that the current statewide measures are

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extended beyond 2020. This represents a strategy for the City to continue to reduce emissions below the 2020 reduction target through to 2035 and beyond.

Table ES-3 Projected 2035 GHG Emissions Comparison				
Source Category	Metric tons of CO₂e			
	2010	2035	Reduced 2035	% Reduced
Transportation	368,622	556,818	271,436	51%
Energy	395,565	523,427	357,294	32%
Area Sources	52,559	59,151	57,733	2%
Water and Wastewater	25,360	30,980	23,779	23%
Solid Waste	41,724	57,518	41,061	29%
Construction	2,288	2,288	2,059	10%
Total	886,118	1,230,182	753,363	39%
2020 Reduction Target ^a	788,176			
Note: Mass emissions of CO ₂ e shown in the table are rounded to the nearest whole number. Totals shown may not add up due to rounding. ^a The reduction target for 2020 is based on a 15% decrease from Escondido's revised 2005 emissions inventory.				

In addition to the emission reductions, this plan describes the cost savings associated with each of the reduction measures. The financing opportunities and strategies for implementing the reduction measures are described in Chapter 7.

This E-CAP describes sets a baseline for Escondido's GHG emissions, projects how these emissions will grow, and includes strategies to reduce emissions to a level consistent with California's emissions reduction target. These strategies complement Escondido's General Plan policies and are consistent with Escondido's vision for a more sustainable community.

Chapter 1 Introduction

CHAPTER 1 INTRODUCTION

Escondido is committed to providing a more livable, equitable and economically vibrant community. Recently adopted legislation requires jurisdictions to reduce GHG emissions generated in the community. By using energy more efficiently, harnessing renewable energy to power buildings, recycling waste, and enhancing access to sustainable transportation modes, Escondido can keep dollars in its local economy, create new green jobs and improve community quality of life. These efforts toward reducing GHG emissions would be done in coordination with Escondido's land use decisions. The foundation of planning land use decisions is found in the General Plan policies and programs.

The policies and programs of Escondido's General Plan serve as a foundation for most land use decisions. Preparing, adopting, implementing, and maintaining the General Plan aims to:

- Describe the community's vision and define the community's environmental, social, and economic goals;
- Inform citizens about their community and provide them with opportunities to participate in the planning and decision-making process;
- Coordinate the community and environmental protection activities among local, regional, state and federal agencies; and
- Guide in the short and long-term development of the community.

This section describes the purpose and goals of the E-CAP; describes the relationship of the E-CAP to Escondido's General Plan; provides background information on GHG emissions; and summarizes the regulatory framework surrounding GHG emissions and climate change.

1.1 Purpose

The E-CAP was designed under the premise that the City of Escondido and the community it represents are uniquely capable of addressing emissions associated with sources under the City's jurisdiction. Escondido's emission reduction efforts would coordinate with the state strategies in order to accomplish emission reductions in an efficient and cost effective manner. The E-CAP has been developed with the following purposes in mind:

- Create an updated 2010 emissions inventory from which to benchmark GHG reductions;
- Provide a plan that is consistent with and complementary to the GHG emissions reduction efforts being conducted by the State of California through the Global Warming Solutions Act (AB 32) and the federal government through the actions of the Environmental Protection Agency;
- Guide the development, enhancement, and implementation of actions that reduce GHG emissions; and
- Provide a policy document with specific implementation measures meant to be considered as part of the planning process for future development projects.

1.2 Goals

To fulfill the purposes of the E-CAP, Escondido has identified the following achievement goals:

- Provide a list of specific actions that will reduce GHG emissions, with the highest priority given to actions that provide the greatest reduction in GHG emissions and benefits to the community at the least cost;
- Reduce emissions attributable to Escondido to levels at or below 1990 GHG emissions by year 2020 consistent with the target reductions of AB 32; and
- Establish a qualified reduction plan from which future development within Escondido can tier and thereby streamline the environmental analysis necessary under the California Environmental Quality Act (CEQA).

1.3 Relationship to the Escondido General Plan

The Escondido General Plan discusses the City's vision and the realization of this vision through the following areas: Community Health and Services, Community Protection, Economic Prosperity, Growth Management, Land Use, Mobility and Infrastructure, and Resource Conservation. The General Plan also includes implementation tools that are presented as separate policies and documents.

The E-CAP is an implementation tool of the General Plan to guide development in Escondido by focusing on attaining the various goals and policies of the General Plan as well as the GHG reduction goals outlined in Section 1.2 above. Table 1-1 summarizes the policies of the proposed General Plan that are related to reducing GHG emissions and the reduction measures in the E-CAP that have been developed in coordination with these General Plan policies. Chapter 4 includes a description of all E-CAP reduction measures.

1.4 Background

The E-CAP achieves the purpose and goals described above by providing an analysis of GHG emissions and sources attributable to Escondido; estimates on how those emissions are expected to increase with the General Plan Update; recommended policies and actions that can reduce GHG emissions to meet state and federal targets; a timeline of implementation; and a defined tracking and reporting mechanism that will measure progress toward the goals.

The following discussion includes a brief overview regarding the nature of GHG emissions, the climate change impacts anticipated within Escondido, and the federal, state, and local regulatory framework designed to address climate change.

CHAPTER 1 INTRODUCTION

Table 1-1 GHG-Related Escondido General Plan Policies		
General Plan Element	General Plan Policies	E-CAP Reduction Measures
Energy		
Energy Efficiency		
Community Health and Services	2.26, 5.10	R2-E1: Residential Energy Efficiency Requirements
Land Use/ Community Form	1.8	R2-E2: Commercial Energy Efficiency Requirements
Mobility	14.6-14.8, 14.10	R2-E5: Residential Energy Retrofits
Resource Conservation	6.3	R2-E6: Commercial Energy Retrofits
Energy Conservation		
Mobility	14.3, 14.4	R2-A2: Reduce Heat Island Impacts R3-A1: Expand City Tree Planting
Renewable Energy		
Mobility	14.5, 14.10	R2-E3: Residential Renewable Energy Requirements
Resource Conservation	6.2	R2-E4: Commercial Renewable Energy Requirements
Transportation		
Improved Pedestrian and Bicycle Access		
Community Health and Services	1.11, 2.5-2.7, 2.11, 3.5, 5.4	
Land Use/Community Form	1.4, 1.9, 3.4, 4.3, 7.1, 7.4, 9.3	R2-T2: Bicycle Master Plan
Mobility	1.1, 2.1, 2.4, 3.1-3.12, 4.1-4.8, 14.2	
Resource Conservation	2.2-2.4, 6.2	
Improved Transit Access		
Community Health and Services	3.5, 5.4, 1.9	
Land Use/ Community Form	1.4, 1.5, 3.4, 7.3, 7.4	R2-T3: Transit Improvements
Mobility	1.1, 2.1, 2.2, 2.4, 2.8, 5.1-5.10, 6.1-6.3	
Smart Growth		
Community Health and Services	2.11	R2-T1: Land Use Based Trips and VMT Reduction Policies
Land Use/Community Form	1.1, 1.4, 1.5, 1.8, 1.9, 3.4, 3.9, 4.6, 7.2-7.4	
Mobility	1.1, 2.3, 2.8, 14.2	R3-T1: Regional Land Use and Transportation Coordination
Resource Conservation	6.2	
Other Transportation Reductions		
Mobility	7.9, 8.2	R2-T4: Transportation Demand Management
Resource Conservation	6.3, 6.5-6.10	
Water		
Water Conservation		
Community Health and Services	2.26, 5.10	
Mobility	10.11, 10.12, 10.14, 11.10	R2-W2: Water Conservation Strategies
Resource Conservation	2.9, 4.4, 5.3, 6.2	
Energy Efficiency in Water		
Mobility	10.9, 11.11	R2-W1: Energy Efficient Water Treatment Plan

Table 1-1 GHG-Related Escondido General Plan Policies		
General Plan Element	General Plan Policies	E-CAP Reduction Measures
Recycled Water		
Mobility	10.13	R2-W3: Increased Recycled Water Use
Area Source		
Resource Conservation	2.9	R2-A1: Electric Landscaping Equipment
Solid Waste		
Mobility	13.2-13.5, 13.7, 13.8	R2-S1: Waste Disposal Programs
Construction		
Resource Conservation	6.3, 6.8	R2-C1: Construction Emissions Reductions
Regional		
Resource Conservation	6.1, 6.11	R3-E1: Regional Energy Planning Coordination R3-T1: Regional Land Use and Transportation Coordination

1.5 Greenhouse Gases

Parts of the Earth's atmosphere act as an insulating blanket, trapping sufficient solar energy to keep the global average temperature within a range suitable for human habitation. The 'blanket' is a collection of atmospheric gases called 'greenhouse gases' or GHGs because they trap heat similar to the effect of glass walls in a greenhouse. These gases, mainly water vapor, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons (CFCs) all act as effective global insulators, reflecting infrared radiation back to earth. Human activities, such as producing electricity and driving internal combustion vehicles, emit these gases in the atmosphere.

Due to the successful global bans on chlorofluorocarbons (primarily used as refrigerants, aerosol propellants and cleaning solvents), Escondido does not generate significant emissions of these GHGs and therefore, they are not considered any further in this analysis. Other synthesized gases such as Hydrofluorocarbons and Carbon Tetrafluoride have been banned and are no longer available on the market. Because of the ban, the City of Escondido will not generate emissions of these GHGs and therefore, they are not considered any further in this analysis.

Another potent GHG is sulfur hexafluoride, which is mainly used as a gaseous dielectric medium in electric switchgear of high voltage electric transmission lines and medical use in retinal detachment surgery and ultrasound imaging. In both uses, sulfur hexafluoride is not released to the atmosphere and therefore, it is not considered further in this analysis.

Because GHGs have variable heat-trapping properties, a common unit of measurement, the carbon dioxide equivalent, is used to normalize the GHG emission capacity from the different GHGs. Each GHG is compared to carbon dioxide with respect to its ability to trap infrared radiation, its atmospheric lifetime, and its chemical structure. For example, methane is a GHG that is 21 times more potent than carbon dioxide; therefore, one metric ton of methane is equal to 21 MT CO₂e.

1.6 Regulatory Setting

In an effort to stabilize GHG emissions and reduce impacts associated with climate change, international agreements, as well as federal and state actions were implemented beginning as early as 1988. The government agencies discussed below work jointly, as well as individually, to address GHG emissions through legislation, regulations, planning, policy-making, education, and a variety of programs.

International and Federal

GLOBAL EFFORTS

The United States participated in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). The Kyoto Protocol, a treaty made under the UNFCCC was the first international agreement to regulate GHG emissions. The United States is a signatory to the Kyoto Protocol; however, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments.

CLIMATE CHANGE TECHNOLOGY PROGRAM

The United States has opted for a voluntary and incentive-based approach toward emissions reductions in lieu of the Kyoto Protocol's mandatory framework. The Climate Change Technology Program is a multi-agency research and development coordination effort (which is led by the Secretaries of Energy and Commerce) that is charged with carrying out the President's National Climate Change Technology Initiative.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



The United States Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address global climate change. The Federal government administers a wide array of public-private partnerships to reduce GHG intensity generated by the United States. These programs focus on energy efficiency, renewable energy, methane and other non-carbon dioxide gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements several voluntary programs that substantially contribute to the reduction of GHG emissions.

In *Massachusetts v. Environmental Protection Agency* (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that the USEPA has authority to regulate GHG, and the USEPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the USEPA should be required to regulate carbon dioxide and other GHGs as pollutants under Section 202(a)(1) of the federal Clean Air Act (CAA).

The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October of 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufactures of heavy-duty and off-road vehicles and vehicle engines, and requires annual reporting of emissions. The

Final Rule became effective December 29th 2009 with data collection to begin on January 1st 2010 and the first annual reports due in March of 2011¹. This rule does not regulate the emission of GHGs it only requires the monitoring and reporting of GHG emissions for those sources above certain thresholds. USEPA adopted a Final Endangerment Finding for the six defined GHGs on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Section 202(a) (1) of the CAA in fulfillment of the U.S. Supreme Court decision.

On May 13, 2010, the USEPA issued a final rule that establishes a common sense approach to addressing GHG emissions from stationary sources under the CAA permitting programs. This final rule sets a threshold of 75,000 tons per year for GHG emissions. New and existing industrial facilities that meet or exceed that threshold will require a permit under the New Source Review Prevention of Significant Deterioration and title V Operating Permit programs. This rule took effect on January 2, 2011.

State

CALIFORNIA AIR RESOURCES BOARD



The California Air Resources Board (CARB), a part of the California EPA (CalEPA) is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets state ambient air quality standards (California Ambient Air Quality Standards (CAAQS)), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's State Implementation Plan, for which it works closely with the federal government and the local air districts.

EXECUTIVE ORDER S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

The first California Climate Action Team (CCAT) Report to the Governor in 2006 contained recommendations and strategies to help meet the targets in Executive Order S-3-05. In April 2010, the Draft California Action Team (CAT) Biennial Report expanded on the policy oriented 2006 assessment.

¹ USEPA, Final Rule for mandatory reporting of GHG emissions. October 2009.
<http://www.epa.gov/climatechange/emissions/downloads09/GHG-MRR-FinalRule.pdf>

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The new information detailed in the CAT Assessment Report includes development of revised climate and sea-level projections using new information and tools that have become available in the last two years; and an evaluation of climate change within the context of broader social changes, such as land-use changes and demographic shifts². The action items in the report focus on the preparation of the Climate Change Adaptation Strategy, required by Executive Order S-13-08, described later in this section.

ASSEMBLY BILL 1493, CLEAN CAR STANDARDS

AB 1493 (also known as the Pavley Bill, in reference to its author Fran Pavley) was enacted in 2002 and requires the “maximum feasible and cost effective reduction” of GHGs from automobiles and light-duty trucks. Subsequently, in 2004, CARB approved the “Pavley I” regulations limiting the amount of GHGs that may be released from new passenger automobiles beginning with model year 2009 through 2016; these regulations would reduce emissions by 30 percent from 2002 levels by 2016. The second set of regulations (“Pavley II”) is currently in development and will cover model years 2017 through 2025 in order to reduce emissions by 45 percent by the year 2020. The automotive industry legally challenged the bill claiming that the federal gas mileage standards preempted these state regulations. In 2005, California filed a waiver request to the USEPA in order to implement the GHG standards and in March of 2008, the USEPA denied the request. However, in June 2009, the decision was reversed and the USEPA granted California the authority to implement the GHG reduction standards for passenger cars, pickup trucks, and sport utility vehicles.

In September 2009, CARB adopted amendments to the “Pavley I” regulations that cemented California’s enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments also coordinated California’s rules with the federal rules for passenger vehicles.

ASSEMBLY BILL 32, THE CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006



In 2006, the California State Legislature adopted AB 32, the California *Global Warming Solutions Act of 2006*. AB 32 focuses on reducing GHG in California. GHGs as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. AB 32 required CARB to adopt rules and regulations that would achieve GHG emissions equivalent to 1990 statewide levels by 2020. On or before June 30, 2007, CARB was required to publish a list of discrete early action GHG emission reduction measures that would be implemented by 2010. The law further required that such measures achieve the maximum technologically feasible and cost effective reductions in GHGs from sources or categories of sources to achieve the statewide GHG emissions limit for 2020.

² California Environmental Protection Agency, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006.

CARB published its final report for Proposed Early Actions to Mitigate Climate Change in California in October 2007. The measures included are part of California’s strategy for achieving GHG reductions under AB 32. Three new regulations were proposed to meet the definition of “discrete early action GHG reduction measures”: a low carbon fuel standard; reduction of hydrofluorocarbon 134a emissions from non-professional servicing of motor vehicle air conditioning systems; and improved landfill methane capture³. CARB estimates that by 2020, the reductions from those three measures would be approximately 13-26 million MT CO₂e.

Under AB 32, CARB has the primary responsibility for reducing GHG emissions. CARB published a staff report titled California 1990 GHG Emissions Level and 2020 Emissions Limit⁴ that determined the statewide levels of GHG emissions in 1990 to be 427 million MT CO₂e. Additionally, in December 2008, CARB adopted the Climate Change Scoping Plan, which outlines the state’s strategy to achieve the 2020 GHG limit. The Scoping Plan proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health. The plan emphasizes a cap-and-trade program, and also includes the discrete early actions.

SENATE BILL 97 (SB 97)

SB 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directed the California Office of Planning and Research (OPR) to develop draft CEQA Guidelines “for the mitigation of GHG emissions or the effects of GHG emissions” and directed the Resources Agency to certify and adopt the State CEQA Guidelines.

On April 13, 2009, OPR submitted the proposed amendments to the Secretary for Natural Resources. The Natural Resources Agency conducted formal rulemaking in 2009, certified, and adopted the amendments in December 2009. The California Office of Administrative Law codified into law the amendments in March 2010. The amendments became effective in June 2010 and provide regulatory guidance with respect to the analysis and mitigation of the potential effects of GHG emissions.

CEQA Guidelines § 15183.5, Tiering and Streamlining the Analysis of GHG Emissions, was added as part of the CEQA Guideline amendments that became effective in 2010 and describes the criteria needed in a Climate Action Plan (CAP) that would allow for the tiering and streamlining of CEQA analysis for subsequent development projects:

§15183.5. Tiering and Streamlining the Analysis of Greenhouse Gas Emissions.

(a) Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate

³ California EPA- California Air Resources Board, Proposed Early Actions to Mitigate Climate Change in California, October 2007.

⁴ California EPA- California Air Resources Board, California 1990 GHG Emissions Level and 2020 Emissions Limit, November 2007.

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plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged EIRs) 15168 (program EIRs), 15175-15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).

(b) Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

(1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:

- (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;*
- (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;*
- (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;*
- (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;*
- (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;*
- (F) Be adopted in a public process following environmental review.*

(2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project.

One of the goals of the E-CAP is to allow programmatic level review and mitigation of GHG emissions that allows streamlining of CEQA review for subsequent development projects. To accomplish this, the E-CAP framework is designed to fulfill the requirements identified in CEQA Guidelines § 15183.5, above.

EXECUTIVE ORDER S-1-07

Executive Order S-1-07, the Low Carbon Fuel Standard (LCFS) (issued on January 18, 2007), calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. It instructed the California Environmental Protection Agency to coordinate activities between the University of California, the California Energy Commission and other state agencies to develop and propose a draft compliance schedule to meet the 2020 target. Furthermore, it directed ARB to consider initiating regulatory proceedings to establish and implement the LCFS. In response, ARB identified the LCFS as an early action item with a regulation to be adopted and implemented by 2010.

EXECUTIVE ORDER S-13-08

On November 14, 2008, Governor Schwarzenegger issued Executive Order S-13-08, *The Climate Adaptation and Sea Level Rise Planning Directive*, which provides clear direction for how the state should plan for future climate impacts. Executive Order S-13-08 calls for the implementation of four key actions to reduce the vulnerability of California to climate change:

- Initiate California's first statewide Climate Change Adaptation Strategy (CAS) that will assess the state's expected climate change impacts, identify where California is most vulnerable, and recommend climate adaptation policies;
- Request that the National Academy of Sciences establish an expert panel to report on sea level rise impacts in California in order to inform state planning and development efforts;
- Issue interim guidance to state agencies for how to plan for sea level rise in designated coastal and floodplain areas for new and existing projects; and
- Initiate studies on critical infrastructure and land-use policies vulnerable to sea level rise.

The 2009 CAS report summarizes the best known science on climate change impacts in the state to assess vulnerability, and outlines possible solutions that can be implemented within and across state agencies to promote resiliency. This is the first step in an ongoing, evolving process to reduce California's vulnerability to climate impacts⁵.

CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 6

California Code of Regulations (CCR) Title 24, Part 6: *California's Energy Efficiency Standards for Residential and Nonresidential Buildings* (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically

⁵ California Natural Resources Agency, 2009 California Climate Adaption Strategy-A Report to the Governor in Response to Executive Order S-13-2008. September 2009. www.Climatechange.Ca.Gov/Adaptation

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to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels and natural gas use result in GHG emissions and energy efficient buildings require less electricity and natural gas. Therefore, increased energy efficiency results in decreased GHG emissions.

The California Energy Commission (CEC) adopted 2008 Standards on April 23, 2008 and the Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. CEC adopted the 2008 changes to the Building Energy Efficiency Standards for several reasons:

- To provide California with an adequate, reasonably priced, and environmentally sound supply of energy;
- To respond to AB 32, *the Global Warming Solutions Act of 2006*, which mandates that California must reduce its GHG emissions to 1990 levels by 2020;
- To pursue California energy policy, which states that energy efficiency is the resource of first choice for meeting California's energy needs;
- To act on the findings of California's Integrated Energy Policy Report that concludes that the Standards are the most cost effective means to achieve energy efficiency, expects the Building Energy Efficiency Standards to continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Standards in reducing energy related to meeting California's water needs and in reducing GHG emissions;
- To meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes; and
- To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards.

ASSEMBLY BILL 1493

AB 1493 (also known as the Pavley Bill, in reference to its author Fran Pavley) was enacted in 2002 and requires the “maximum feasible and cost effective reduction” of GHGs from automobiles and light-duty trucks. Subsequently, in 2004, CARB approved the “Pavley I” regulations limiting the amount of GHGs that may be released from new passenger automobiles beginning with model year 2009 through 2016; these regulations would reduce emissions by 30 percent from 2002 levels by 2016. The second set of regulations (“Pavley II”) is currently in development and will cover model years 2017 through 2025 in order to reduce emissions by 45 percent by the year 2020. The automotive industry legally challenged the bill claiming that the federal gas mileage standards preempted these state regulations. In 2005, California filed a waiver request to the USEPA in order to implement the GHG standards and in March of 2008, the USEPA denied the request. However, in June 2009, the decision was reversed and the USEPA granted California the authority to implement the GHG reduction standards for passenger cars, pickup trucks, and sport utility vehicles. In September 2009, CARB adopted amendments to the “Pavley I”

regulations providing vehicle manufacturers with new compliance flexibility. The amendments also coordinated California's rules with the federal rules for passenger vehicles.

SENATE BILL 375

SB 375, which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. On September 23, 2010, CARB adopted the vehicular GHG emissions reduction targets that were developed in consultation with the metropolitan planning organizations (MPOs); the targets require a 7 to 8 percent reduction by 2020 and between 13 to 16 percent reduction by 2035 for each MPO. SANDAG, of which Escondido is a member agency, serves as the region's MPO. SB 375 recognizes the importance of achieving significant GHG reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs will work with local jurisdictions in the development of sustainable communities strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces GHG emissions while meeting housing needs and other regional planning objectives. MPOs will prepare their first SCS according to their respective regional transportation plan (RTP) update schedule; to date, no region has adopted an SCS. The first of the RTP updates with SCS strategies are expected in 2012.

CAL GREEN BUILDING CODE

CCR Title 24, Part 11: California's Green Building Standard Code (CalGreen) was adopted in 2010 and went into effect January 1, 2011. CalGreen is the first statewide mandatory green building code and significantly raises the minimum environmental standards for construction of new buildings in California. The mandatory provisions in CalGreen will reduce the use of volatile organic compounds emitting materials, strengthen water conservation, and require construction waste recycling.

Regional

SAN DIEGO AIR POLLUTION CONTROL DISTRICT

The City of Escondido is located in the San Diego Air Basin, and the San Diego Air Pollution Control District (SDAPCD) is the agency principally responsible for comprehensive air pollution control in the Basin. SDAPCD has not yet adopted an impact significance threshold for analyzing GHG emissions for development projects subject to the CEQA.

SAN DIEGO ASSOCIATION OF GOVERNMENTS

The MPO for the region is the SANDAG. SANDAG adopted the 2050 RTP and SCS for the County of San Diego on October 28, 2011. The 2050 RTP is aimed at attaining the reduction targets of a 7 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. Many of the transportation-related reduction measures included in this E-CAP would coordinate with SANDAG's efforts. Table 1-2, below, summarizes the goals and policies of the 2050 RTP and demonstrates the proposed Escondido General Plan Policies that coordinate with each.

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Table 1-2 SANDAG RTP Policies and Escondido Proposed General Plan Policies		
SANDAG 2050 RTP Goals	SANDAG RTP Policy Objectives	Escondido Proposed General Plan Policies
Mobility		
The transportation system should provide the general public and those who move goods with convenient travel options. The system also should operate in a way that maximizes productivity. It should reduce the time it takes to travel and the costs associated with travel.	<p>Tailor transportation improvements to better connect people with jobs and other activities.</p> <p>Provide convenient travel choices including transit, intercity and high-speed trains, driving, ridesharing, walking, and biking.</p> <p>Preserve and expand options for regional freight movement.</p> <p>Increase the use of transit, ridesharing, walking, and biking in major corridors and communities.</p> <p>Provide transportation choices to better connect the San Diego region with Mexico, neighboring counties, and tribal nations.</p>	<p>Community Character Policies 1.1, 1.4, 1.5,1.9</p> <p>Residential Development Policies 3.4, 3.9</p> <p>Neighborhood Maintenance & Preservation Policies 4.3, 4.6</p> <p>Mixed Use Overlay Policies 7.1, 7.2, 7.3, 7.4</p> <p>Office Land Use Policy 9.3</p> <p>Regional Transportation Planning Policy 1.1</p> <p>Complete Streets Policies 2.1, 2.3, 2.4, 2.8</p> <p>Pedestrian Network Policies 3.1, 3.4-3.7</p> <p>Bicycle Network Policies 4.1, 4.4-4.7</p> <p>Transit System Policies 5.1, 5.3-5.7, 5.9</p> <p>TDM Policies 6.1-6.3</p> <p>Parking Policy 8.2</p> <p>Air Quality and Climate Protection Policies 6.5</p>
Reliability		
<p>The transportation system should be reliable.</p> <p>Travelers should expect relatively consistent travel times, from day to day, for the same trip and mode of transportation.</p>	<p>Employ new technologies to make travel more reliable and convenient.</p> <p>Manage the efficiency of the transportation system to improve traffic flow.</p>	<p>Pedestrian Network Policies 3.2, 3.9</p> <p>Bicycle Network Policies 4.2, 4.3,</p> <p>Transit System Policy 5.2</p> <p>Street Network Policy 7.9</p>
System Preservation and Safety		
The transportation system should be well maintained, to protect the public’s investments in transportation. It also is critical to ensure a safe regional transportation system.	<p>Keep the region's transportation system in a good state of repair.</p> <p>Reduce bottlenecks and increase safety by improving operations.</p> <p>Improve emergency preparedness within the regional transportation system.</p>	<p>Pedestrian Network Policy 3.8</p> <p>Bicycle Network Policy 4.8</p> <p>Transit System Policy 5.8, 5.10</p>
Social Equity		
The transportation system should be designed to provide an equitable level of transportation services to all segments of the population.	<p>Create equitable transportation opportunities for all populations regardless of age, ability, race, ethnicity, or income.</p> <p>Ensure access to jobs, services, and recreation for populations with fewer transportation choices.</p>	<p>Complete Streets Policy 2.2</p> <p>Transit System Policy 5.1</p>
Healthy Environment		
The transportation system should promote environmental sustainability, and foster efficient development patterns that optimize travel, housing, and employment choices. The system should encourage growth away from rural areas and closer to existing and planned development.	<p>Develop transportation improvements that respect and enhance the environment.</p> <p>Reduce greenhouse gas emissions from vehicles and continue to improve air quality in the region.</p> <p>Make transportation investments that result in healthy and sustainable communities.</p>	<p>Health and Wellness Policy 1.11</p> <p>Parks and Recreation Policies 2.5, 2.6, 2.7, 2.11, 2.26</p> <p>Library Services Policy 3.5</p> <p>Schools and Education Policies 5.4, 5.10</p> <p>Pedestrian Network Policies 3.3, 3.10-3.12</p> <p>Energy Policy 14.2</p> <p>Air Quality and Climate Protection Policy 6.1-6.3, 6.6-6.11</p>
Prosperous Economy		
The transportation system should play a significant role in raising the region’s standard of living.	<p>Maximize the economic benefits of transportation investments.</p> <p>Enhance the goods movement system to support economic prosperity.</p>	<p>Transit System Policy 5.3</p> <p>TDM Policy 6.1, 6.2</p> <p>Parking Policy 8.2</p> <p>Air Quality and Climate Protection Policy 6.7</p>

COUNTY OF SAN DIEGO

The County of San Diego published its Guidelines for Determining Significance for Climate Change on February 17, 2012. The purpose of the guideline document is to ensure that new development within the unincorporated County implements its fair share of GHG emission reductions needed to meet the statewide AB 32 mandate. The County's guidelines establish a screening level threshold of 2,500 MT CO₂e emitted annually. Projects that emit more than 2,500 MT CO₂e annually would result in a potentially significant cumulatively considerable impact and would be required to incorporate measures from the County's CAP and prepare a technical analysis to demonstrate that the project's design features, along with CAP measures and, if necessary, additional mitigation measures, are incorporated that would allow the project to be below the applicable County significance threshold. There are four thresholds that can be used by proposed projects: (1) a GHG emission limit based on emissions per service population; (2) a maximum annual GHG emissions limit for standard development projects; (3) a GHG limit for stationary emission sources; and (4) a required percent reduction compared to business as usual emissions.

CHAPTER 1 INTRODUCTION

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Chapter 2 **Methodology**

2.1 Overview

The first step in drafting this E-CAP is to prepare the GHG inventories for Escondido. GHG inventories include all major sources of emissions attributable directly or indirectly to Escondido's municipal operations or activities within the community the City serves. GHG inventories are divided into two broad categories: municipal GHG inventories and community-wide GHG inventories. Municipal GHG Inventories include emissions resulting from City municipal operations. Community-wide GHG inventories include a broader range of emissions associated with both the activities within the community the City serves and the municipal operations. As such, the municipal GHG inventory is a subset of the larger community-wide GHG inventory. The methodology for preparing GHG inventories incorporates the protocols, methods, and emission factors found in the California Climate Action Registry (CCAR) *General Reporting Protocol* (version 3.1, January 2009), the *Local Government Operations Protocol* (LGOP) (version 1.1, May 2010), and the *Draft Community-wide GHG Emissions Protocol* under development by the Association of Environmental Professionals (AEP) and the Governor's Office of Planning and Research Climate Action Plan Guidance. The LGOP provides the guidance and protocols in the development of the municipal GHG inventory. Currently, there is not an adopted protocol for the development of community-wide GHG inventories. However, the *Draft Community-wide GHG Emissions Protocol* provides draft guidance in the development of the Community-wide inventory.

The LGOP and the *Draft Community-wide GHG Emissions Protocol* categorize GHG emissions into three distinct "scopes" as a way of organizing GHG emissions, as follows:

- **Scope 1 Emissions** – All "direct" sources of community-wide GHG emissions from sources within the jurisdictional boundaries of Escondido. This includes fuel burned onsite in buildings and equipment such as natural gas or diesel fuel; transportation fuels burned in motor vehicles; and wood-burning emissions from household hearths. For inventories of only municipal operations, these emissions are limited to activities under the operational control of the local government.
- **Scope 2 Emissions** – Encompasses "indirect" sources of GHG emissions resulting from the consumption of purchased electricity, which is electricity used by the residents, businesses, and City's facilities. An "indirect" source is one where the action that generates GHGs is separated from the where the GHGs are actually emitted. For example, when a building uses electricity, it necessitates the burning of fossil fuels, such as coal or natural gas (and resultant release of GHGs) to generate electricity by a utility facility located elsewhere. Thus they are distinguished from *direct* emissions (i.e., Scope 1 emissions) from electricity production, which are reported by the utility itself, in order to avoid double counting.
- **Scope 3 Emissions** – An optional reporting category that encompasses all other "indirect emissions" that are a consequence of activities of Escondido's residents and businesses, but occur from sources out of the jurisdictional control of the local government. The key to this category of emissions is that they must be "indirect or embodied emissions over which the local government exerts significant control or influence" (CCAR 2010). For example, when considering

GHG emissions from trucks hauling waste under a City contract, the City does not own the waste hauling trucks, but does have significant control over how many pickups the trucks make.

Scope 1 emissions are characterized in this report as “direct emissions,” while Scope 2 emissions are characterized as “indirect source emissions.”

The analysis herein is tailored to include all existing and projected emission sources within Escondido to provide, to the fullest extent feasible, a comprehensive analysis of GHG reductions. The AB 32 Scoping Plan establishes a comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of GHG emissions.

2.2 Calculation of GHGs

The first step in developing the E-CAP was to establish an existing inventory of Escondido’s GHG emissions. The purpose of this inventory is to update Escondido’s existing 2005 inventory to align with the Escondido General Plan Update. The E-CAP uses 2010 as the year on which to base the existing inventory; this is the most recent year for which reliable data concerning Escondido’s residential, commercial, and government operations are available. This inventory provides a framework on which to design programs and actions that specifically target reductions by emissions sources. Programs and actions already in place within Escondido are described in Chapter 4. The 2010 inventory serves as a reference against which to measure Escondido’s progress towards reducing GHG emissions since 2005 and into the future, and also serves as documentation for potential emission trading opportunities.

The methodology used for the calculation GHG emissions differs depending on the emission source, as described below. The emissions calculations follow the CCAR General Reporting Protocol, version 3.1; LGOP, version 1.1; and CARB’s Mandatory GHG Reporting Regulations (Title 17, CCR Sections 95100 et seq.). These protocols are consistent with the methodology and emission factors endorsed by CARB and USEPA. In cases where these protocols do not contain specific source emission factors, current industry standards or the USEPA’s *AP 42 Compilation of Air Pollution Emission Factors* were used.

In estimating Escondido’s total GHG emissions in 2010, the 2005 inventory was consulted in order to utilize the same data sources and retain consistency between the two analyses. San Diego Gas and Electric (SDG&E) provided both municipal and community wide electricity and natural gas data. Solid waste data was taken from the California Integrated Waste Management Board’s (CIWMB) database. The City of Escondido Water and Wastewater Rate Study Report (December 2010) provided the water use data for the inventory. Transportation emissions were calculated based on VMT modeled by SANDAG and a traffic study performed by Linscott, Law & Greenspan Engineers (LLG 2011) in coordination with Escondido’s General Plan Update. Land use data and development estimates from the General Plan Update were used to calculate GHG emissions associated with construction. In cases where specific data for 2010 was not available, estimates were made by extrapolating from existing data. The data used in the calculations for each inventory are summarized in Chapter 3. All of the contributors to GHG emissions (kilowatt-hours [kWh] of electricity generated by fossil fuel combustion in power plants, natural gas in therms, vehicle travel in VMT, and solid waste in tons) are expressed in the common unit of MT CO₂e released into the atmosphere in a given year.

CHAPTER 2 METHODOLOGY

In addition, the costs associated with the GHG emissions were calculated for each sector (based on availability of data). The costs were based on the consumer fees for each fuel type included in the inventory. By including the costs, the City can assess where consumers are spending the most money and utilize the information in making decisions on reduction measures. Coefficients, modeling inputs, and other assumptions, used in the calculations of GHGs are included in the Appendix of this report.

GHG emissions are typically segregated into direct and indirect sources as discussed previously. However, direct and indirect sources are not completely independent of each other and are often combined into other more encompassing categories. For example, although natural gas combustion is a direct source and electricity generation is an indirect source, they both are typically discussed under a heading of “Energy” when policies are put in place to reduce emissions. Therefore, this E-CAP discusses emissions with respect to the general source categories of Transportation, Energy, Area Source, Water, Wastewater, Solid Waste, and Construction.

Transportation

ON-ROAD VEHICLES

Carbon dioxide emissions from vehicles were calculated utilizing EMFAC2007 emission factors. The emission factors model was developed by CARB and used to calculate emission rates from on-road motor vehicles from light-duty passenger vehicles to heavy-duty trucks that operate on highways, freeways, and local roads in California. Motor vehicle emissions of methane, and nitrous oxide were also calculated using USEPA emission factors for on-road vehicles based on the total annual mileage driven multiplied by their respective emission factors by year.

For the community-wide inventory, VMT were based on the results of the traffic report prepared to analyze the proposed General Plan Update through a select-zone analysis for the City of Escondido. This model estimates VMT for all trips that begin and/or end within the City limits. This accounts for traffic entering or exiting Escondido and traffic within Escondido, but excludes pass-through traffic. Escondido’s VMT includes miles from all trips within Escondido and half of the miles from trips that begin or end in Escondido; Escondido is held accountable for all trips within the city limits while the City shares accountability with other jurisdictions for trips that have only one end point in Escondido.

For the municipal inventory, emissions associated with transportation include two sources: the City’s fleet of vehicles and the City’s employee commutes. For the vehicle fleet, the emissions were calculated based on the total fuel used in City vehicles. For the employee commutes, the survey conducted during the development of the previous inventory was used to estimate emissions associated with employees driving to and from work.

The estimates do not account for electrical, biodiesel (a blend of diesel and vegetable oil), or hydrogen powered systems. Any electrically powered vehicle which draws power from a residence, commercial or industrial land use will be accounted for in the electrical usage for Escondido. Costs associated with transportation were based on the diesel and gasoline fuel use and their associated per gallon costs in 2010.

Energy

ELECTRICITY

The City emits carbon dioxide, methane, and nitrous oxide indirectly through the use of electricity provided by SDG&E. For the municipal inventory, electricity use in government facilities and streetlights was obtained from SDG&E and organized by department. Escondido is also home to two power plants: Escondido Power Plant and Palomar Energy.



SDG&E generates electricity primarily from natural gas combustion. The GHG emission factor associated with electricity use is therefore based on the emissions from the natural gas used to generate the electricity. The annual usage in megawatt hours per year was multiplied by the emission factors appropriate to the inventory year for carbon dioxide, methane, and nitrous oxide to determine emissions from these sources.

Costs of electricity calculations were based on the annual kWh use and price per kWh for each rate class. Electricity rates fluctuate throughout the year, so average values were used.

NATURAL GAS COMBUSTION

The City emits GHGs from the combustion of natural gas. The annual natural gas usage for Escondido in therms was converted to million British thermal units and multiplied by the respective emissions factors for carbon dioxide, methane, and nitrous oxide to determine the emissions from natural gas combustion, typically used for heating. Natural gas usage for 2010 was obtained from SDG&E. The costs associated with natural gas use were calculated using SDG&E rates aligned with the use breakdowns of residential, industrial, and commercial use.

Area Sources

LANDSCAPING

Emissions of carbon dioxide, methane, and nitrous oxide are generated by the use of landscape equipment through the combustion of gasoline. Carbon dioxide emissions were determined directly through URBEMIS2007 for the existing inventory. URBEMIS2007 is a computer software package that is used for modeling projected emissions of air quality pollutants including carbon dioxide. From the carbon dioxide emissions, the approximate number of gallons of gasoline consumed through landscape equipment use was calculated. This number was then multiplied by emission factors presented in the General Reporting Protocol, version 3.1 to determine both methane and nitrous oxide emissions.

WOOD BURNING

Direct carbon dioxide emissions are produced from the burning of wood in wood stoves and fireplaces (the emissions from natural gas fired stoves are included in the Energy source category). Carbon dioxide, methane, and nitrous oxide emissions from wood stoves and fireplaces are calculated based on the percentage of residential units using each type of hearth and the estimated annual amount of wood burned. The emission coefficients used are taken from the USEPA's AP-42 document. Cost estimates were made for wood burning using the average cost of wood.

Water

POTABLE WATER

Electricity is needed to move and treat water. Escondido residents and businesses currently use approximately 8.2 billion gallons of drinking water annually. Escondido's water comes from both local sources and purchased water. About 12 percent of the water is locally sourced while the remainder is purchased from San Diego County Water Authority, which is sourced from a mixture of water from the Colorado River Aqueduct and the State Water Project. There are additional emissions associated with this purchased water from the Colorado River and the State Water Project due to the electricity used to transport the water over a long distance. Costs associated with water were based on the average rates for residential, commercial, and industrial customers. This category also includes the agricultural water used in Escondido. Agricultural operations in Escondido primarily consist of citrus and avocado orchards. Maintenance of orchards does not typically involve intensive agricultural equipment that would emit substantial GHGs; therefore, the indirect GHG emissions associated with the water use are the only GHG emissions included in these inventories.



WASTEWATER TREATMENT

Escondido's Hale Avenue Resource Recovery Facility treats and disposes of Escondido's wastewater. GHG emissions arise from the electricity used to pump and treat the water and the direct methane emissions from the anaerobic digesters used in the treatment process. The electricity emissions are included in the Energy category described above. The direct emissions are calculated based on the amount of methane gas produced by the anaerobic digester and the fraction of methane.

Waste Management

SOLID WASTE

Emissions from solid waste are determined as the sum of emissions generated by transportation from its source to the landfill, the equipment used in its disposal at the landfill, and fugitive emissions from decomposition in landfills.

Emissions from the transportation of solid waste is determined based on the annual pounds per year of total waste disposed in landfills including biosolids waste from wastewater treatment plants, the density of the waste, the capacity of the hauling trucks, the average number of miles traveled by each truck; and the carbon dioxide, methane, and nitrous oxide emissions generated per mile traveled.

Landfill equipment emissions are only included in the inventory if the landfill is under the direct control of the City or County of interest. As the Sycamore landfill used for the disposal of waste for Escondido, is not under the City's direct control, emissions from onsite equipment are not included in this inventory.

Fugitive emissions of methane from the decomposition of solid waste are calculated based on the annual waste generation multiplied by the USEPA emission factor for waste production for methane. The emission factor to determine methane generation varies if the landfill operations are known to operate a methane flare or to generate electricity from methane capture. Carbon dioxide generated by decomposition of waste in landfills is not considered anthropogenic because it would be produced through the natural decomposition process regardless of its disposition in the landfill. Nitrous oxide is not a by-product of decomposition and therefore no fugitive emissions of nitrous oxide are anticipated from this source.



Construction

Construction-related GHG emissions vary depending on the individual project, the type of equipment used, the timeline for the project, and a number of other factors. Annual construction-related CO₂e emissions were estimated using the assumed worst-case activity data and the emission factors included URBEMIS 2007 model. Table 2-1 summarizes the 2035 planning horizon assumptions for construction activities associated with the General Plan Update. For the purposes of modeling a worst-case construction scenario, it was assumed that development associated with the General Plan Update would take place over a 25-year period between the 2010 baseline conditions and the 2035 planning horizon, with an equal amount of construction occurring each year. At 2035, a total of 9,924 new residential units and 13,650,000 sf of new non-residential development could be accommodated within the General Plan Update planning area boundary (this includes areas outside Escondido's current jurisdictional boundaries, but within the sphere of influence). Additionally, existing land uses would be

CHAPTER 2 METHODOLOGY

demolished and redeveloped. To account for construction emissions from redevelopment as well as new development, a citywide average of approximately 15 percent of existing development is assumed to be demolished and reconstructed over the same time period. Using this approach, it is assumed that 316 single family dwelling units, 405 multi-family units, 279,406 sf of commercial/retail development, 246,026 sf of office development, and 197,454 sf of industrial development would be constructed every year for 25 years between 2010 and 2035. Model defaults were used to estimate emissions associated with construction equipment. It was assumed that construction emissions would be the same for each inventory year, including the 2005 and 2010 inventories.

Table 2-1 Annual Construction Assumptions	
Category	Assumption
Total New Development	9,924 residential units and 13,650,000 sf non-residential development
Total Redevelopment	8,105 residential units and 4,422,150 sf non-residential development
Phasing	25 years (2010-2035)
Annual New Construction per Phase	397 residential units and 546,000 sf non-residential development
Annual Redevelopment per Phase	324 residential units and 176,886 sf non-residential development
Percent of Existing Development to be Demolished	15%

Chapter 3 **Greenhouse Gas Emissions Inventory**

CHAPTER 3 GREENHOUSE GAS EMISSIONS INVENTORY

The following sections describe Escondido's 2010 municipal operations and community-wide GHG emissions inventories. The municipal operations inventory includes sources and quantities of GHG emissions from government owned or rented buildings, facilities, vehicles, and equipment. The community-wide emissions inventory identifies and categorizes the major sources and quantities of GHG emissions produced by residents, businesses, and municipal operations in Escondido using the best available data. By having the municipal emissions separated from the community as a whole, the local government can implement reduction strategies where it has direct control, closely monitor the changes in emissions over time, and set an example for the rest of Escondido.

3.1 2010 Municipal Emissions Inventory

Data Inputs

Data for the municipal inventory was gathered from various City government departments. Table 3-1, below, summarizes the data inputs and sources for each of the emission categories included in the inventory.

Category	Data Input	Data Source
Electricity (kWh)	33,328,709	SDG&E
Natural Gas (therms)	460,959	SDG&E
Vehicle Fleet		
<i>Gasoline(gallons)</i>	270,279	Fleet Manager
<i>Diesel (gallons)</i>	35,289	
Employee Commute (responses)	386	Employee Survey
Solid Waste (tons)	3,931	EDCO Disposal
Wastewater		
<i>Digester Gas(ft³/day)</i>	295,000	Wastewater Dept.
<i>Methane fraction</i>	0.61	

With the exception of the employee commute data, each data input was then multiplied by the associated emission factor to calculate the emissions inventory. The data from the employee commute survey was used to estimate total miles traveled, fuel used, and associated GHG emissions for all City employees' commutes. Additionally, where possible, the emissions were categorized by City Department.

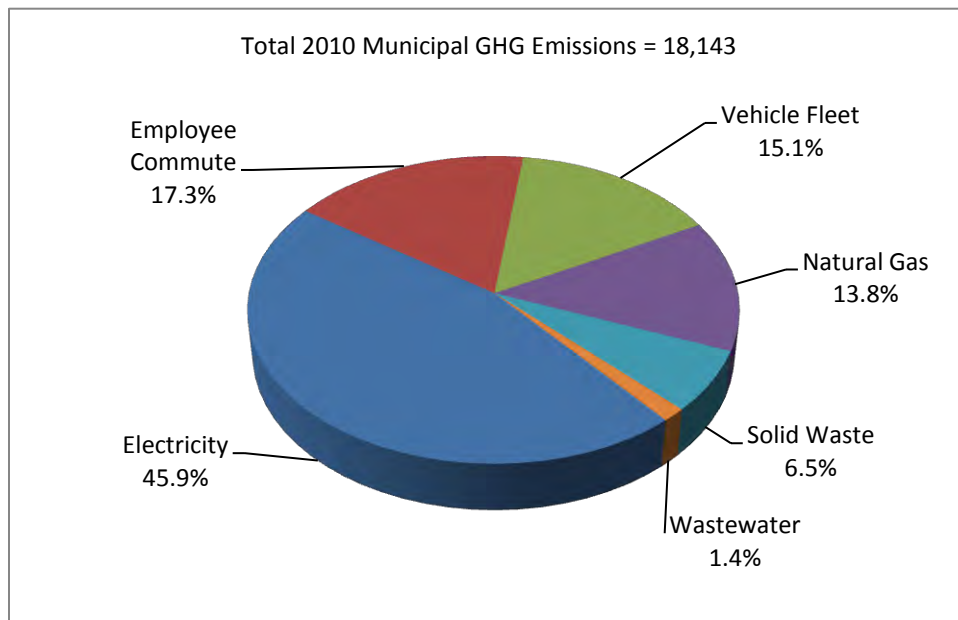
Emissions Summary

Escondido emitted 18,143 MT CO₂e through its municipal operations in 2010. The emissions were calculated based on the vehicle and equipment fleet fuel use, energy accounts, waste management, and a survey of the City’s employee commutes. The largest portion of Escondido’s 2010 government emissions were from electricity (46 percent), followed by emissions from employee commutes (17 percent). Table 3-2 summarizes Escondido’s net 2010 emissions of CO₂e as broken down by emissions category. Figure 3-1 is a graphical representation of Table 3-2. A detailed breakdown of 2010 emissions by category is available in the Appendix.

Table 3-2 2010 Total Municipal Emissions	
Category	Metric tons of CO ₂ e
Electricity	8,323
Employee Commute	3,142
Vehicle Fleet	2,739
Natural Gas	2,502
Solid Waste	1,179
Wastewater ^a	259
Total	18,143

^a Note: the wastewater emissions category represents only the fugitive methane emissions from the wastewater treatment facility. The emissions due to electricity used at the facility are included in the Electricity category.

Figure 3-1 2010 Municipal Emissions Generated by Source



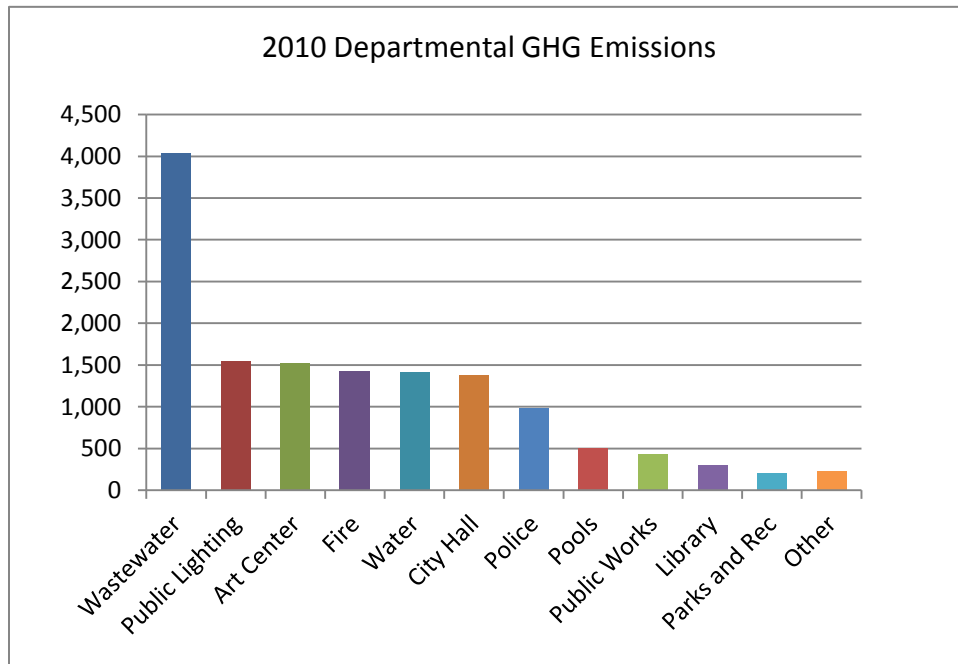
2010 MUNICIPAL DEPARTMENT EMISSIONS AND COSTS

For the municipal inventory it is helpful to see which departments are generating the most emissions. This helps to pinpoint where emissions are coming from and where the focus should be placed for targeting emissions reductions. Table 3-3 and Figure 3-2, below, summarize the electricity, natural gas, and employee commute emissions by department. Vehicle fleet fuel use was not available for each individual department, so those emissions are not included in Table 3-3.

The wastewater department represents the largest sources of emissions and costs in Escondido. The energy intensive process for wastewater treatment contributes to the large amount of emissions and associated costs from electricity use in the department.

Table 3-3 2010 Municipal and Employee Emissions and Costs by Department		
Category	Metric Tons of CO₂e	Cost
Wastewater ^a	4,036	\$ 1,942,803
Public Lighting	1,544	\$ 884,258
CA Center for the Arts	1,528	\$ 573,041
Fire Department	1,425	\$ 615,078
Water ^a	1,407	\$ 951,241
City Hall	1,382	\$ 760,057
Police	986	\$ 315,953
Pools	498	\$ 204,727
Public Works	432	\$ 234,362
Library	298	\$ 161,178
Parks and Recreation	208	\$ 68,936
Other	222	\$ 165,897
Total	13,966	\$ 6,137,351
Note: Emission sources include electricity, natural gas, and vehicle emissions from employee commutes. ^a Water and wastewater emissions here represent only emissions associated with electricity and natural gas use in the water/wastewater facilities and fuel use from employee commutes for members of these departments.		

Figure 3-2 2010 Comparison of Municipal Emissions Generated by Department (MT CO₂e)



2010 TOTAL MUNICIPAL COST ESTIMATES

The costs associated with the inventory represent the municipal energy and fuel use costs. These cost estimates give the City a perspective on where the City is spending the most money and help to prioritize reduction measures toward the sectors that have the potential to both reduce emissions and costs. Electricity was the largest source of emissions and cost in 2010. Table 3-4, below, summarizes the cost estimates for 2010. Additionally, the City employees collectively spend approximately \$1.4 million annually on their commutes to and from work.

Table 3-4 Estimated Municipal Energy Costs	
Category	Cost
Electricity	\$ 5,090,500
Natural Gas	\$ 357,841
Vehicle Fleet	\$ 960,189
Municipal Total	\$ 6,408,530
Employee Commute	\$ 1,429,190

3.2 2010 Community-Wide Emissions Inventory

The community-wide inventory represents all emissions from sources located within the jurisdictional boundaries of the City of Escondido. Therefore, the municipal emissions described in the previous section are a subset of the community-wide inventories presented here. In 2010, the City of Escondido emitted a total of 886,118 MT CO₂e from the community as a whole. The following sections describe the data inputs, emissions by source, and emissions by land use in 2010.

Data Inputs

Data for the community-wide inventory was gathered from various City departments, SDG&E, SANDAG, and reports. Table 3-5, below, summarizes the data inputs and sources for each of the emission categories included in the inventory.

Each data input was then multiplied by the associated emission factor to calculate the emissions associated with each source. For construction emissions, the land use assumptions were entered in URBEMIS and default construction assumptions were used.

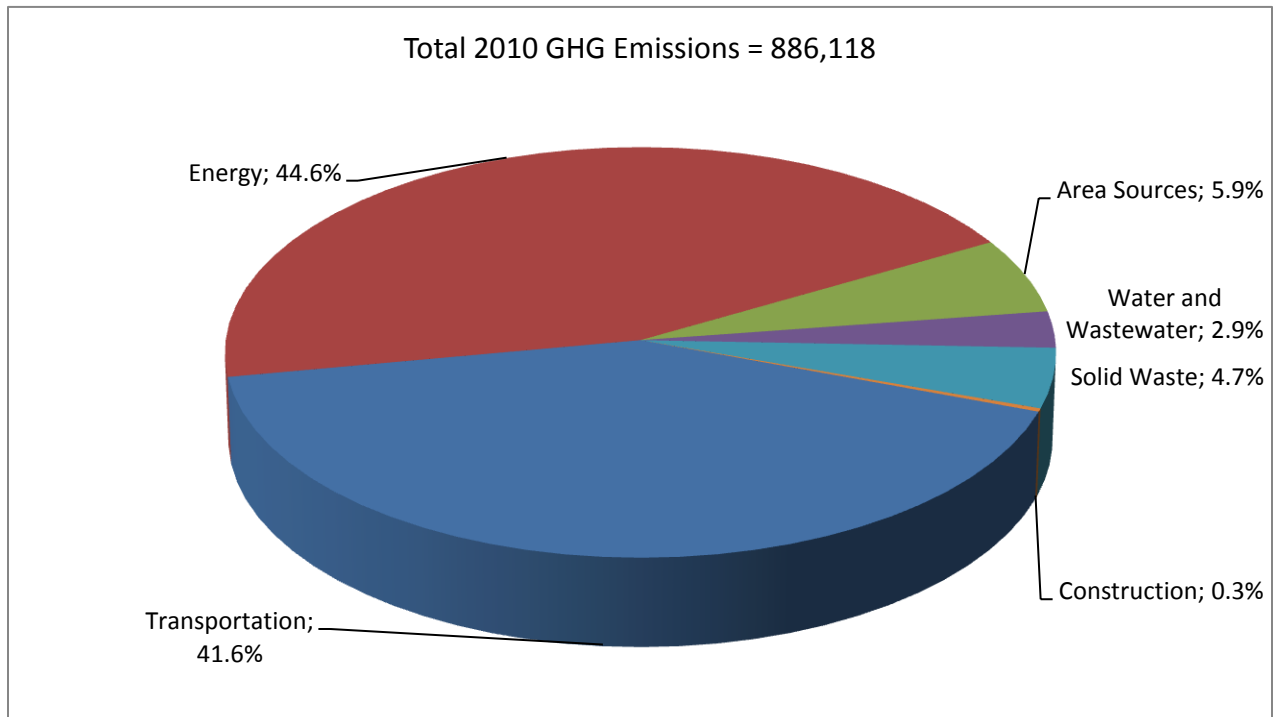
Category	Data Input	Data Source
Electricity (kWh)	652,737,784	SDG&E
Natural Gas (therms)	40,833,330	SDG&E
Transportation		
<i>Annual VMT</i>	735,247,975	SANDAG/General Plan Update Traffic Study
<i>Annual Trips</i>	231,644,061	
Area Source (based on land use)		
<i>SFR (units)</i>	31,107	City Planning Department
<i>MFR (units)</i>	16,477	
<i>Commercial (ksf)</i>	17,092	
<i>Industrial (ksf)</i>	12,389	
Solid Waste (tons)	147,166	CIWMB
Water (kgal)	8,224,556	2010 Water and Wastewater Rate Study Report
Wastewater		
<i>Digester Gas(ft³/day)</i>	295,000	Wastewater Dept.
<i>Methane fraction</i>	0.61	
Construction		
<i>New Residential (units)</i>	397	General Plan Update Land Use
<i>New Commercial (sf)</i>	546,000	
<i>Residential Redevelopment (units)</i>	324	
<i>Commercial Redevelopment (sf)</i>	176,886	

Emissions by Source

Table 3-6 includes the total amount of community-wide GHG emissions for Escondido in 2010 by emission source category. Escondido as a whole emitted 886,118 MT CO₂e in 2010. The largest portion of Escondido’s 2010 emissions were from electricity and natural gas use in buildings (45 percent), followed by emissions from transportation (42 percent). Figure 3-3 provides a comparison of GHG emissions by source category.

Table 3-6 2010 Community-wide GHG Emissions by Source	
Category	Metric tons of CO ₂ e
Energy	395,565
Transportation	368,622
Area Sources	52,559
Solid Waste	41,724
Water and Wastewater	25,360
Construction	2,288
Total	886,118

Figure 3-3 2010 Community GHG Emissions by Source

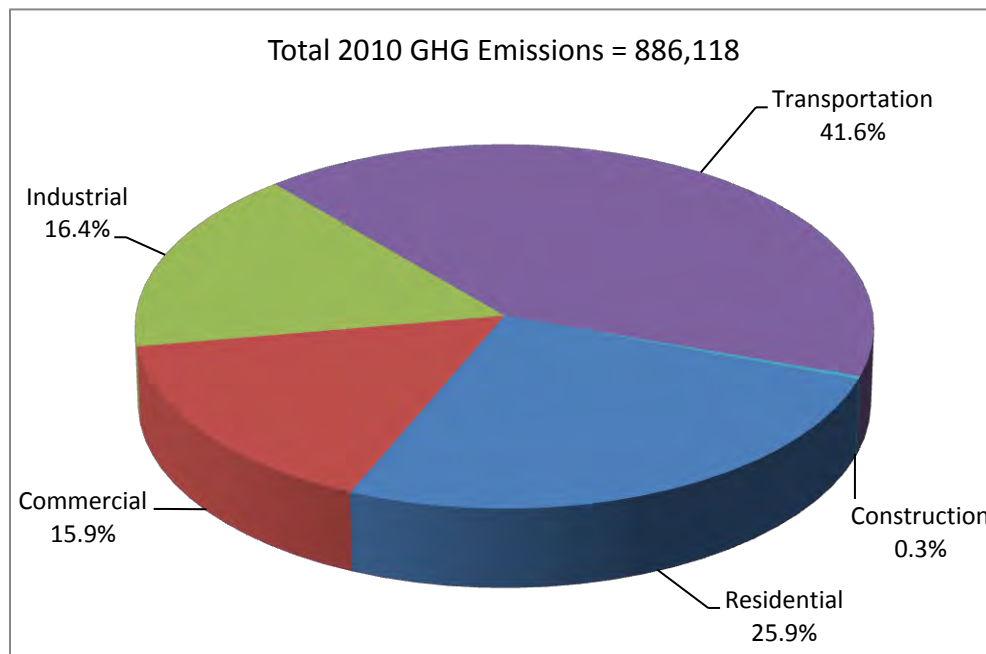


Emissions by Land Use

Table 3-7 summarizes the total amount of community-wide GHG emissions for Escondido in 2010 by land use category. Escondido as a whole emitted 886,118 MT CO₂e in 2010. The largest portion of Escondido’s 2010 emissions were from transportation (42 percent), followed by emissions from residential land uses (26 percent). Due to the nature of mobile emissions, transportation and construction emissions could not be allocated to the individual land use types. Figure 3-4 provides a comparison of GHG emissions by land use category.

Table 3-7 2010 Community-wide GHG Emissions by Land Use	
Category	Metric tons of CO ₂ e
Transportation	368,622
Residential	229,512
Industrial	145,170
Commercial	140,526
Construction	2,288
Total	886,118

Figure 3-4 2010 Community GHG Emissions by Land Use



3.3 2020 Community-Wide Emissions Inventory

In 2020, Escondido is projected to emit a total of 992,583 MT CO₂e based on the growth rates in the General Plan Update and without the inclusion of the reduction measures described in this E-CAP. As with the 2010 community-wide inventory, these emissions represent all sources within the jurisdictional boundary of Escondido, including emissions due to the municipal operations of City departments. The following sections describe the data inputs, emissions by source, and emissions by land use category for the year 2020.

Data Inputs

Data for the 2020 community-wide inventory was estimated based on the General Plan growth rates for Escondido and the traffic model's forecasts. Table 3-8, below, summarizes the growth rates and annual VMT data for 2020.

Table 3-8 2020 Community-wide Data Inputs		
Category	Data Input	Data Source
Transportation		
	<i>Annual Vehicle Miles</i>	903,409,558
	<i>Annual Traveled Trips</i>	338,626,654
		SANDAG/General Plan Update Traffic Study
Growth Rates (based on land use) ^a		
	<i>Single Family Residential</i>	2.2%
	<i>Multi-Family Residential</i>	16.5%
	<i>Commercial</i>	20.1%
	<i>Industrial</i>	9.3%
		City Planning Department
Construction		
	<i>New Residential (units)</i>	397
	<i>New Commercial (sf)</i>	546,000
	<i>Residential Redevelopment (units)</i>	324
	<i>Commercial Redevelopment (sf)</i>	176,886
		General Plan Update Land Use
^a Note: The growth rates represent the overall growth from 2010 to 2020 and are derived from the projected land use growth based on the proposed General Plan Update. The 2020 growth numbers were extrapolated from the 2035 build-out growth rates.		

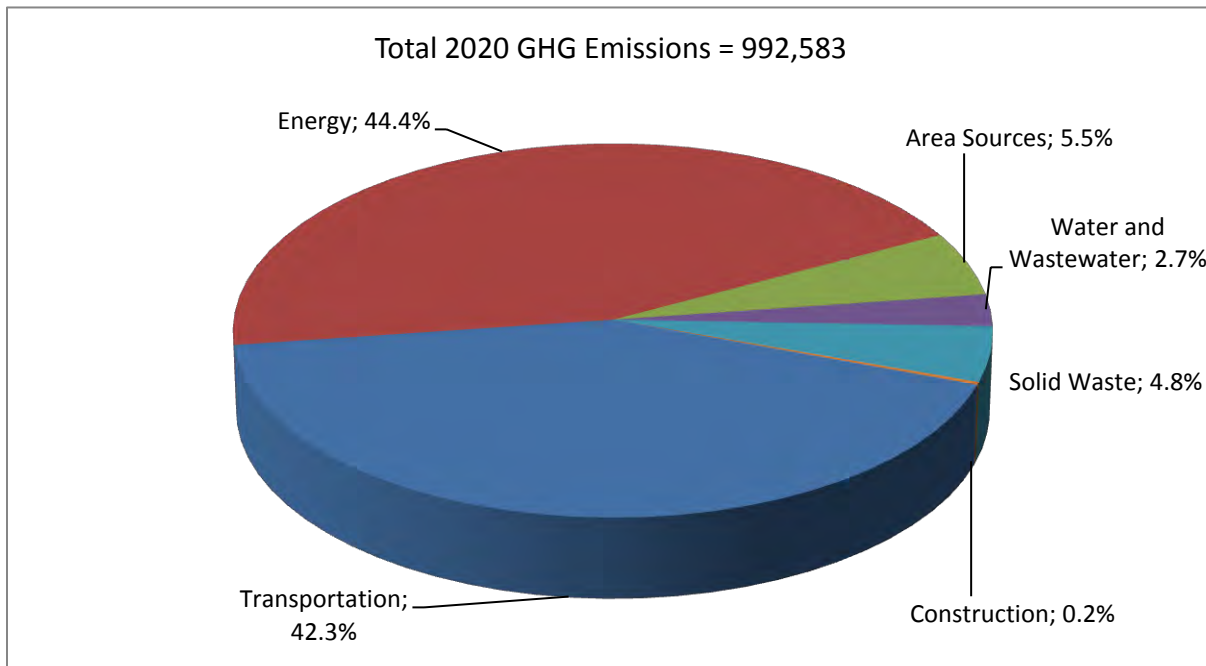
The VMT data from the traffic study was used to estimate emissions from transportation in 2020. The land use specific growth rates were used to estimate the emissions associated with electricity, natural gas, water, wastewater, area source, and solid waste. Construction emissions were estimated using URBEMIS and the default construction assumptions.

Emissions by Source

The 2020 emissions are estimated based on the projected growth in Escondido from 2010 to 2020. These projections include a 7.5 percent increase in housing, a 20.1 percent increase in commercial development, and a 9.3 percent increase in industrial development; these growth rates were applied, respectively, to residential, commercial, and industrial 2010 community-wide emissions in order to estimate 2020 emissions with the proposed General Plan Update. Table 3-9 summarizes the 2020 Escondido emissions of CO₂e as broken down by emissions category. Figure 3-5 is a graphical representation of Table 3-9. A detailed breakdown of 2020 emissions by category is available in the Appendix.

Table 3-9 2020 GHG Emissions by Source	
Category	Metric tons of CO ₂ e
Energy	441,025
Transportation	419,741
Area Sources	54,977
Solid Waste	47,273
Water and Wastewater	27,286
Construction	2,288
Total	992,583

Figure 3-5 2020 GHG Emissions Generated by Source

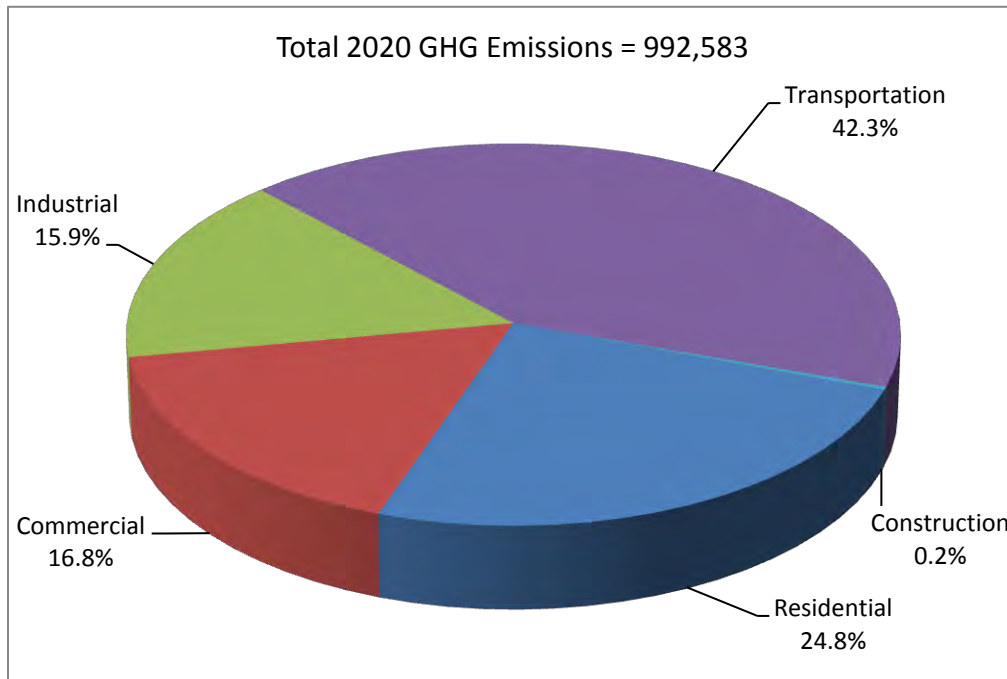


Emissions by Land Use

Table 3-10 summarizes the total amount of community-wide GHG emissions for Escondido in 2020 by land use category. Escondido as a community is projected to emit 992,583 MT CO₂e in 2020. The largest portion of Escondido’s 2020 emissions are from transportation (42 percent), followed by emissions from residential land uses (26 percent). Due to the nature of mobile emissions, transportation and construction emissions could not be allocated to the individual land use types. Figure 3-6 provides a comparison of GHG emissions by land use category.

Table 3-10 2020 GHG Emissions by Land Use	
Category	Metric tons of CO ₂ e
Transportation	419,741
Residential	246,021
Commercial	166,950
Industrial	157,583
Construction	2,288
Total	992,583

Figure 3-6 2020 GHG Emissions by Land Use



3.4 2035 Community-Wide Emissions Inventory

In 2035, Escondido is projected to emit a total of 1.23 million MT CO₂e based on the growth rates associated with the proposed General Plan Update and without the inclusion of the proposed reduction measures presented in this E-CAP.

Data Inputs

Data for the 2035 community-wide inventory was estimated based on projected growth rates for Escondido and the traffic model’s forecasts for the General Plan 2035 horizon year. Table 3-11 summarizes the growth rates and VMT data for 2035 with the proposed General Plan Land Use and Circulation Elements.

Category	Data Input	Data Source
Transportation		
	<i>Annual Vehicle Miles</i>	1,219,016,356
	<i>Annual Traveled Trips</i>	456,926,126
Growth Rates (based on land use) ^a		
	<i>Single Family Residential</i>	5.7%
	<i>Multi Family Residential</i>	46.5%
	<i>Commercial</i>	61.0%
	<i>Industrial</i>	24.8%
Construction		
	<i>New Residential (units)</i>	397
	<i>New Commercial (sf)</i>	546,000
	<i>Residential Redevelopment (units)</i>	324
	<i>Commercial Redevelopment (sf)</i>	176,886
^a Note: The growth rates represent the overall growth from 2010 to 2035 and are derived from the projected land use growth based on the proposed General Plan.		

The VMT data from the traffic study was used to estimate emissions from transportation in 2035. The land use specific growth rates were used to estimate the emissions associated with electricity, natural gas, water, wastewater, area source, and solid waste.

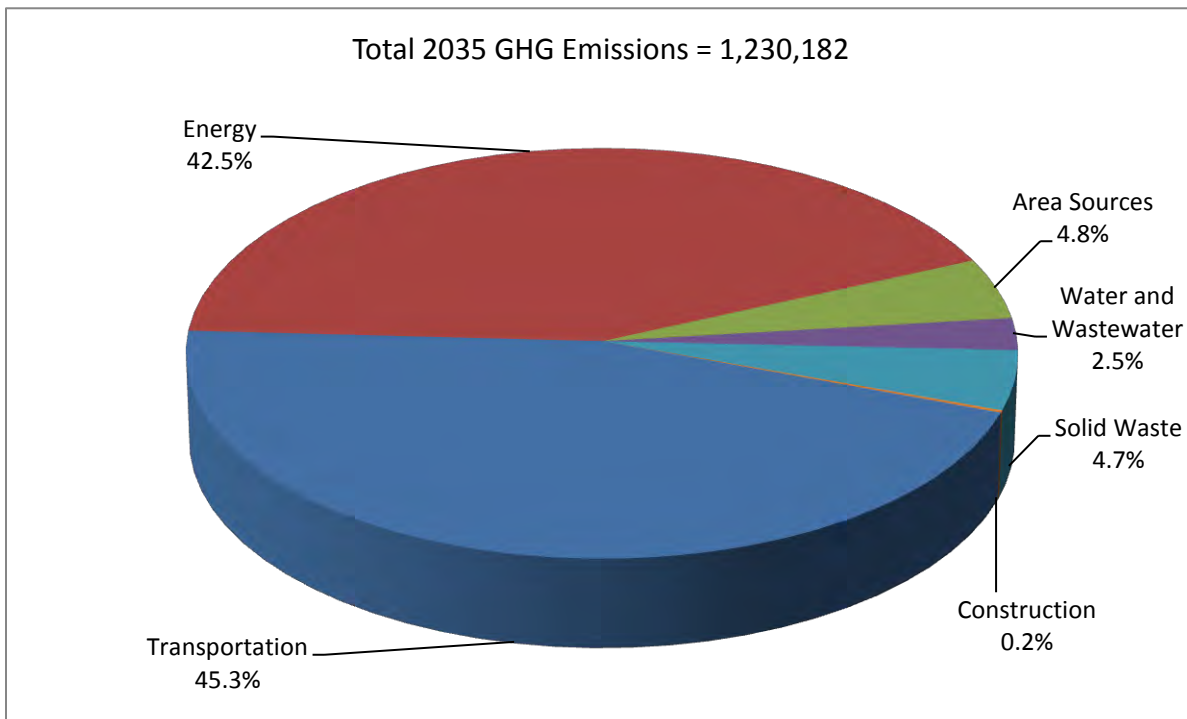
Emissions by Source

The 2035 emissions are estimated based on the projected growth in Escondido from 2010 to 2035. These projections include a 5.7 percent increase in single family housing, a 46.5 percent increase in multi-family housing, a 61.0 percent increase in commercial development, and a 24.8 percent increase in industrial development; these growth rates were applied, respectively, to single family residential, multi-family residential, commercial, and industrial emissions in order to estimate 2035 emissions. Table 3-12 summarizes the net 2035 City emissions of CO₂e as broken down by emissions category. Figure 3-7 is a graphical representation of Table 3-12. A detailed breakdown of 2035 emissions by category is available in the Appendix.

3.4 2035 COMMUNITY-WIDE EMISSIONS INVENTORY

Table 3-12 2035 GHG Emissions by Source	
Category	Metric tons of CO ₂ e
Transportation	556,818
Energy	523,427
Area Sources	59,151
Water and Wastewater	30,980
Solid Waste	57,518
Construction	2,288
Total	1,230,182

Figure 3-7 2035 GHG Emissions by Source

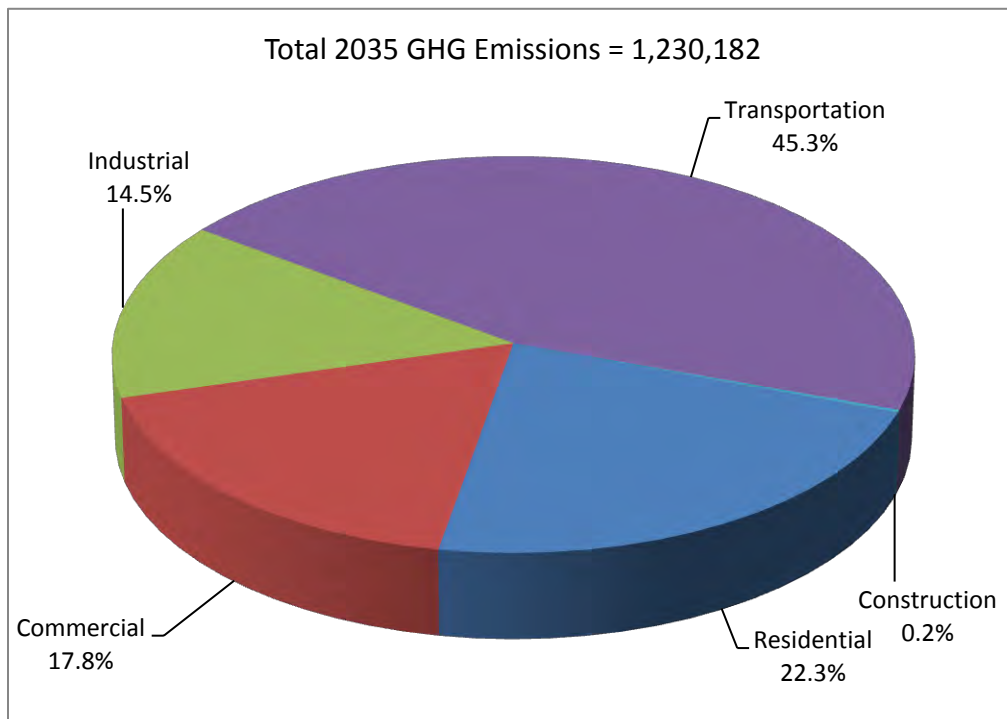


Emissions by Land Use

Table 3-13 summarizes the total amount of community-wide GHG emissions for Escondido in 2035 by land use category. Escondido is projected to emit 1,230,182 MT CO₂e in 2035. The largest portion of Escondido’s 2035 emissions are from transportation (45 percent), followed by emissions from residential land uses (22 percent). Due to the nature of mobile emissions, transportation emissions could not be allocated to the individual land use types. Figure 3-8 provides a comparison of GHG emissions by land use category.

Table 3-13 2035 GHG Emissions by Land Use	
Category	Metric tons of CO ₂ e
Transportation	556,818
Residential	273,948
Commercial	218,762
Industrial	178,367
Construction	2,288
Total	1,230,182

Figure 3-8 2035 GHG Emissions by Land Use



3.5 2020 Reduction Target

In order for California to meet the goals of AB 32, statewide GHG emissions will need to be reduced back to 1990 levels by 2020. To be consistent with the goals of AB 32, the City of Escondido would also need to achieve the same GHG emission reduction target. In the AB 32 Scoping Plan, CARB equated a return to 1990 levels to a 15 percent reduction from “current” levels. CARB states, “... ARB recommended a greenhouse gas reduction goal for local governments of 15 percent below today’s levels by 2020 to ensure that their municipal and community-wide emissions match the state’s reduction target.” (CARB 2008) The reduction target calculated in the Scoping Plan was based on an inventory of the state’s 2004 GHG emissions (then considered to be “current” levels); these emissions represent a high-point in the economy before the economic recession. The City’s reduction target is based on Escondido’s revised 2005 GHG emissions inventory. By using 2005 to set the reduction target, Escondido is consistent with CARB in using an inventory target that is based on pre-recession conditions.

In February 2011, Escondido completed an inventory of 2005 emissions through participation in the San Diego Foundation’s *Regional Climate Protection Initiative* that included an inventory of both municipal and community-wide GHG emissions. The 2005 emissions amounted to 1,019,318 MT CO₂e community-wide and 20,861 MT CO₂e from municipal operations. The methodology used to estimate municipal emissions in the previous report is similar to the methodology used in this report. However, there are three key differences between the methodologies used in the previous report and this one for the community-wide inventory.

- The estimate for VMT used in the previous inventory calculations includes pass-through trips. These are trips that begin and end outside of the city boundaries, but do pass-through the city. Because the Escondido local government does not have jurisdictional control over these trips, they have been omitted from the revised inventory.
- Emissions from water have been calculated differently in the revised inventory. The previous inventory includes emissions from wastewater and the electricity associated with local treatment and distribution of water. In addition to these emissions, the revised inventory includes the emissions associated with the electricity used to bring imported water to the city.
- The previous emissions inventory does not include emissions associated with the transportation of waste to the landfill. These emissions are included in the revised 2005 inventory.
- Construction emissions were not included in the previous inventory; for the revised inventory, emissions from construction were estimated using the General Plan land use data.

The revised 2005 community-wide inventory in the E-CAP totaled 927,266 MT CO₂e, which is 92,052 MT CO₂e below the previous 2005 inventory. Table 3-14 contains the breakdown of emissions for both the previous 2005 inventory and the revised 2005 inventory used in the E-CAP.

CHAPTER 3 GREENHOUSE GAS EMISSIONS INVENTORY

Table 3-14 2005 Emissions Comparison		
Category	Metric tons of CO ₂ e	
	2005 (Previous)	2005 (Revised)
Transportation ^a	509,904	375,769
Energy	427,305	419,177
Area Sources	43,136	53,287
Water and Wastewater ^b	4,008	28,384
Solid Waste ^c	34,964	48,361
Construction ^d	-	2,288
Total	1,019,318	927,266

Note: Mass emissions of CO₂e shown in the table are rounded to the nearest whole number. Totals shown may not add up due to rounding.

^a The previous methodology for calculating transportation emissions includes the pass-through vehicle trips in the City of Escondido.

^b Previous emissions only include direct emissions from the wastewater treatment plant. The updated inventory also includes emissions associated with the electricity to pump water from non-local sources.

^c The previous inventory does not include emissions associated with transporting waste to the landfill; the updated inventory does include these emissions.

^d Construction emissions were not included in the previous inventory; the updated inventory includes estimates of carbon dioxide emissions associated with the use of construction equipment.

Consistent with the State’s adopted AB 32 GHG reduction target, Escondido has set a goal to reduce GHG emissions back to 1990 levels by the year 2020. This target was calculated as a 15 percent decrease from 2005 levels, as recommended in the AB 32 Scoping Plan. The reduction target is displayed in Table 3-15. Having one overall reduction target, as opposed to targets for each sector, allows Escondido the flexibility to reduce emissions from the sector with the most cost-effective reduction strategies (i.e. the greatest reduction in emissions at the least cost).

Table 3-15 2020 GHG Emissions Reduction Target	
	Metric Tons of CO ₂ e
2005 Emissions	927,266
% Reduction	15%
2020 Reduction Target	788,176

The 2005 emissions inventory was used to set the GHG emissions reduction target for the year 2020. The 2010 inventory, discussed previously and summarized below, provides a baseline for Escondido to measure future progress toward attaining the 2020 target.

3.6 Emissions Comparison by Year

This report analyzes GHG emissions from the most current year with data available (2010) and estimates the future emissions for Escondido in 2020 and 2035. Additionally, this report includes a revised estimate of 2005 GHG emissions which is used to set the 2020 reduction target for Escondido. See Table 3-16 for a summary of all inventories.

The 992,583 MT CO₂e of GHG emissions for 2020 is an estimated increase of 106,465 MT CO₂e above 2010 levels. The growth from 2005 and 2010 to 2020 is a 7.1 percent increase and 12.0 percent increase, respectively. Table 3-16 shows a comparison of total emissions for 2005 (following the methodology used in this analysis), 2010, 2020 emissions, and the 2035 emissions.

Source	Metric Tons of CO ₂ e			
	2005	2010	2020	2035
Transportation	375,769	368,622	419,741	556,818
Energy	419,177	395,565	441,025	523,427
Area Sources	53,287	52,559	54,977	59,151
Water and Wastewater	28,384	25,360	27,278	30,980
Solid Waste	48,361	41,724	47,273	57,518
Construction	2,288	2,288	2,288	2,288
Total	927,266	886,118	992,583	1,230,182

The impact of the economic recession is evident in the emission summaries. 2005 emissions represent the peak of the economy with a decline to the levels in 2010; this is consistent with trends in the overall economy.

The AB 32 Scoping Plan suggests local governments estimate a reduction target for 2020 that is 15 percent below 2005 emissions. Table 3-17 shows the 2020 reduction target for Escondido's community-wide emissions, the 2020 emissions projected for Escondido, and the difference between the two. This difference represents the total emissions that Escondido will need to reduce in order to meet the target by 2020.

	Metric Tons of CO ₂ e
2020 Emissions	992,583
2020 Reduction Target	788,176
Amount to Reduce by 2020	204,406

CHAPTER 3 GREENHOUSE GAS EMISSIONS INVENTORY

With the reduction target set at 788,176 MT CO₂e, Escondido will need to reduce emissions by 204,406 MT CO₂e from the 2020 emissions. This amounts to a 20.6 percent decrease from 2020 emissions and an 11.1 percent decrease from the 2010 community-wide emissions. Chapter 4 describes the efforts currently underway in Escondido and the reduction strategies that would be implemented to reduce emissions in Escondido in order to reach the 2020 reduction target.

Chapter 4

GHG Emissions Reduction Programs and Regulations

CHAPTER 4 GHG EMISSIONS REDUCTION PROGRAMS AND REGULATIONS



The State of California has set specific targets for reducing GHG emissions from the burning of fossil fuels in both power plants and vehicles by adopting various regulations. In addition, state energy efficiency and renewable requirements provide another level of reductions. In order to provide credit to Escondido for regulatory actions already taken or planned by the State of California, this E-CAP first evaluates the GHG reductions that will occur within Escondido as a result of these actions. These are identified in the E-CAP as R1 reduction measures. The R1 measures are included to show all of the anticipated reduction strategies identified in the

AB 32 Scoping Plan for implementation at the state level that will ultimately result in a reduction of GHG emissions at the local level. The R1 measures are not administered or enforced by the City, but the City - by describing them herein- substantiates the reductions associated with these state measures.

R2 and R3 reduction measures are measures that would be incorporated at the local level to provide additional reductions in GHG emissions. R2 measures are those measures that can be quantified to show the value of the reduction from the incorporation of those measures. A complete list of assumptions and reductions for each of the R1 and R2 measures is included in the Appendix.

Many of the R2 measures would be implemented through the Screening Tables for New Development. Through a menu of reduction options, the Screening Tables allow flexibility in how new development implements the R2 measures. This provides a flexible component into the implementation of the E-CAP by allowing prospective developers to choose the fair share of R2 measures that best fits their project at least cost. The Screening Tables serve as the main implementation document for the E-CAP. The tables allow new development projects to tier from and demonstrate consistency with the reduction target established in this E-CAP, thus streamlining the CEQA analysis of project-level GHG emissions as described in the CEQA Guidelines §15183.5. The Screening Table would be provided to the developer, who would then choose from a list of GHG emissions-reducing design features that are each assigned a point value. The point values are allocated based on the effectiveness of the strategy in reducing GHG emissions. In order to demonstrate consistency with the E-CAP, a project that earns 100 points from the Screening Table would implement the project's fair share portion of GHG emission reductions within the E-CAP. Chapter 7 includes more details on the implementation process and how it complies with CEQA, including the Screening Table that would be used to implement the E-CAP.

R3 measures are those measures that, although they provide a program through which reductions in emissions would occur, cannot be quantified at this time. The R3 measures are supportive measures or methods of implementation for the R2 measures. For example, R3-E3: Energy Efficiency Training and Public Education, is a measure that provides education to inform people of the programs, technology, and potential funding available to them to be more energy efficient, and provides the incentives to participate in the voluntary programs shown in R2-E1 through R2-E7. R3-E3 is supportive of measures R2-E1 through R2-E6 because it would provide more publicity, reduce the perceived challenge of being energy efficient, and provide information on potential rebates and other funding programs which will make retrofits more accessible to everyone. Therefore, although by itself R3-E3 cannot be quantified, its

3.6 EMISSIONS COMPARISON BY YEAR

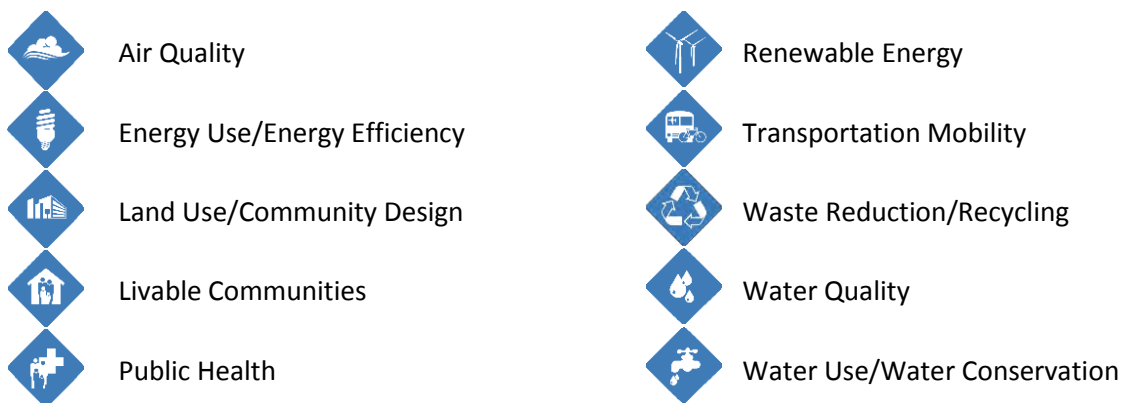
implementation provides a level of assurance that the reduction goals specified in the R2 measures will be achieved.

Also included in the R3 measures are reduction measures that reduce Escondido's government operation emissions. Government operations make up less than 5 percent of the city's total emissions, but the government of Escondido can set an example for residents by implementing reduction measures at the municipal level.

Over the last few years Escondido has implemented several programs that have already begun to reduce Escondido's GHG emissions and will continue to provide reductions throughout the implementation of this E-CAP. Programs that were in place prior to 2010 are accounted for in the existing inventory while programs implemented since 2010 are included below as reduction measures used to reach the 2020 target.

The following discussion summarizes the existing Escondido programs and the proposed reduction measures to be implemented by the City to further reduce GHG emissions. The reduction measures are organized herein by source category (transportation, energy, area source, water, solid waste, and agriculture) then by R1, R2, and R3 measure. The convention to be used for numbering the mitigation measures will be to list the R designation (R1, R2, or R3) then an abbreviation of the source category, followed by the order number. So, R1-E1 is the first R1 measure within the energy category, R1-E2 is the second measure within the energy category, and so on. The source category abbreviations are as follows: T – transportation; E – energy; L – area source; W – water; S - solid waste; and C – construction.

Each of the R2 measures include the GHG reduction potential, estimated cost, estimated savings, and additional community co-benefits. The co-benefits describe the additional community benefits from implementing the reduction measure beyond the GHG emissions reduced. The following icons are used to indicate the co-benefits for each measure:



4.1 Existing Local Programs

City of Escondido Municipal Programs

EMPLOYEE WORK SCHEDULES

Approximately 650 City employees currently work modified hours in a staggered four-day work week. This collectively eliminates approximately 2.5 million vehicle miles annually traveled, decreasing employees' transit-related emissions, reducing highway congestion during peak hours and saving approximately 113,000 gallons of gasoline. The four-day work week currently implemented at City Hall allows for the facility to be closed on Fridays, lowering the facility's energy requirements and effectively saving the City approximately \$50,000 in annual heating and cooling costs. To increase public access to City Hall and municipal facilities, the four-day work week may be eliminated for some or all employees prior to 2020. The employee commute survey conducted for the municipal inventory accounts for the emissions saved from this existing program; however, because it represents such a small portion of the community-wide transportation GHG emissions within Escondido as a whole, the emissions reduction from city employees working a four-day work week was not incorporated into the community-wide emissions inventory that was used to determine future community GHG emissions and Escondido's emission reduction target. The partial or complete elimination of the program would not affect the City's ability to meet its emissions reduction target.

CITY FACILITIES

The City Hall Central Energy Plant that was originally installed in 1988 was upgraded with a state-of-the-art energy efficient system in 2007 that now saves the city \$179,000 in annual operating costs. Because the 2010 inventory represents emissions after this upgrade, the emissions saving are included in the 2010 municipal inventory.

City Hall was re-roofed in 2007 with a heat reflective material further saving cooling costs. The California Consumer Energy Center has information about cool roof technology.

The City pursued leadership in energy and environmental design (LEED) certification for the new police and fire facility located on North Centre City Parkway.

At Escondido's Hale Avenue Resource Recovery Facility the City installed California's first "green technology" that converts raw sewage gas into renewable natural gas, clean enough for use in homes and businesses.

Electric air compressors formerly used at Lakes Dixon and Wohlford to circulate and stabilize water temperatures have been replaced by solar powered facilities providing energy savings and improving water quality and fish habitat.

WATER CONSERVATION

Escondido, as a water provider and in partnership with other local water districts serving the community, provides free home water surveys to single-family customers as well as incentives for businesses and multi-family customers looking to reduce outdoor water use.

Escondido offers incentives through a regional program to reduce water used in landscaping and to eliminate irrigation runoff.

The City offers education and public outreach in the form of presentations to elementary school students about water conservation.

City Ordinance 96-14 requires that residential and non-residential remodel improvements valued at least \$23,828 shall retrofit all existing toilets, showerheads and faucets with low-flow (2.2 GPM) faucets/showerheads and low-flush (1.6 GPF) toilets. Escondido is an active participant in the San Diego County Water Authority's "20-Gallon Challenge" program that strives for reducing each person's water usage 20 gallons per day.

PUBLIC TRANSPORTATION

Escondido is the home of two North County Transit District (NCTD) SPRINTER stops as well as the NCTD's storage and maintenance facility.

The Escondido Downtown Business Association has partnered with Palomar Pomerado Hospital to provide free shuttle service between Downtown and the Escondido Transit Center during weekday commuting hours, making public transportation for downtown employees more viable.

The SANDAG, in cooperation with NCTD, the City of Escondido, and the County of San Diego implemented the Escondido Rapid Bus Project that began service in 2009 to enhance transit service between the Downtown Escondido Transit Center and Westfield Shoppingtown.

Community-Wide Programs

LOCAL BUSINESS PROGRAMS

PALOMAR MEDICAL CENTER WEST

Palomar Medical Center West is located in Escondido, and has installed a green roof totaling more than 1 acre in area on one of its structures. A green roof is a roof that is partially or completely covered in vegetation, which helps to absorb rainwater and provide insulation to the interior of the building. Apart from being pleasant to look at, green roofs reduce the heat island effect, lowering the need for air conditioning, and retain storm water, reducing the amount of runoff that enters the sewer system.

STONE BREWERY

The Stone Brewery is located in Escondido and incorporates many features that use green technology. Surrounded by drought-tolerant landscaping, topped with a 312-kW solar array which provides roughly

CHAPTER 4 GHG EMISSIONS REDUCTION PROGRAMS AND REGULATIONS

40 percent of Stone's energy needs, and serviced by a fleet of biodiesel trucks, the rapidly expanding brewery has made environmentalism part of their business plan. Stone Brewery's World Bistro & Gardens is a "slow-food" restaurant, offering a menu of seasonal, organic, and locally grown sundries. In 2009, Stone Brewery earned the Pam Slater-Price Sustainability Award.

WESTFIELD SHOPPINGTOWN

Westfield Shoppingtown sports a light-colored "cool roof" designed to curb the urban heat island effect and reduce the need for air conditioning. A cool roof is a roof painted in a light color or made of a reflective material that reflects the sun's rays and keeps the interior of the building cooler.

SAN DIEGO REGIONAL CLIMATE PROTECTION INITIATIVE

Escondido completed a 2005 inventory of Escondido's municipal and community-wide emissions through the San Diego Foundation's Regional Climate Protection Initiative. The initiative was launched in 2006 with the mission to raise awareness about the local implications of climate change and catalyze more comprehensive regional action to combat global warming. In coordination with ICLEI – Local Governments for Sustainability, all of the cities and the County of San Diego have completed baseline GHG emission inventories. Escondido's baseline inventory completed by ICLEI is for the year 2005 and follows a different methodology for estimating community-wide emissions from transportation.

SANDAG ENERGY ROADMAP PROGRAM

The Energy Roadmap Program is coordinated by SANDAG to offer energy-planning assistance to local governments in the San Diego region through an energy-efficiency partnership with SDG&E. The Energy Roadmap Program assists local governments in meeting state and regional sustainability goals. It implements the SANDAG Regional Energy Strategy (2009) and Climate Action Strategy (2010), as well as the California Public Utilities Commission Long-term Energy Efficiency Strategic Plan. The program provides energy management plans, or "Energy Roadmaps," to local jurisdictions. The Roadmaps offer a detailed, comprehensive framework for saving energy at the government facilities and in the communities as a whole. Escondido began its Energy Roadmap with SANDAG in April 2011. As of February 2012, the baseline electricity and natural gas use for 29 municipal sites was established through this program. The 29 preliminary energy assessments indicated that almost all of Escondido's municipal sites were performing significantly more efficiently than comparable facilities in California and the nation. Either in response to a specific issue discovered through the site assessment process, or as instructed by city staff, eight sites and two technologies citywide were identified to be further evaluated in the form of comprehensive energy audits. The energy assessments were performed at no cost to the City. Escondido is finalizing its Energy Roadmap with SANDAG, which is scheduled for completion in spring 2012. The government operations component of the Roadmap includes the following elements:

- Saving Energy in City Buildings and Facilities
- Demonstrating Emerging Energy Technologies
- Greening the City Vehicle Fleet
- Developing Employee Knowledge of Energy Efficiency
- Promoting Commuter Benefits to City Employees

The communitywide component of the Energy Roadmap will provide the following elements:

- Leveraging Planning and Development Authority, including smart growth development policies, energy efficient building upgrades, and clean and efficient transportation options
- Marketing Energy Programs to Local Residents, Schools, and Businesses
- Supporting Green Jobs and Workforce Training opportunities

4.2 Transportation

Transportation contributes the largest portion of emissions in all of the inventories presented in Chapter 3. Measures targeted toward reducing emissions from vehicles will have a greater impact on reducing emissions overall. The State has already enacted many policies to encourage production of more efficient vehicles, but Escondido can help to reduce the use of vehicles by utilizing transit-oriented design and smart growth principles. These reduction measures are described in the sections below.

R1 Statewide Transportation Measures

The following list of R1 transportation related measures are those measures that California has identified in the AB 32 Scoping Plan that will result in emission reductions within Escondido.

R1-T1: ASSEMBLY BILL 1493: PAVLEY I

AB 1493 (Pavley) requires the CARB to adopt regulations that will reduce GHG emissions from automobiles and light-duty trucks by 30 percent below 2002 levels by the year 2016, effective with 2009 models. By 2020, this requirement will reduce emissions in California by approximately 16.4 million MT CO₂e, representing 17.3 percent of emissions from passenger/light-duty vehicles in the state. Implementation of Pavley I was delayed by the USEPA's denial of California's waiver request to set state standards that are more stringent than the federal standards, but in June 2009 the denial of the waiver was reversed and California was able to begin enforcing the Pavley requirements.

R1-T2: ASSEMBLY BILL 1493: PAVLEY II

California committed to further strengthening the AB 1493 standards beginning in 2017 to obtain a 45 percent GHG emission reduction from 2020 model year vehicles. This requirement will reduce emissions in California by approximately 4 million MT CO₂e, representing 2.5 percent of emissions from passenger/light-duty vehicles in the state beyond the reductions from the Pavley I regulations described above.

R1-T3: EXECUTIVE ORDER S-1-07 (LOW CARBON FUEL STANDARD)

The LCFS will require a reduction of at least ten percent in the carbon intensity of California's transportation fuels by 2020. By 2020, this requirement will reduce emissions in California by approximately 15 million MT CO₂e, representing 6.9 percent of emissions from passenger/light-duty vehicles in the state. The emissions reduced by this strategy overlap with emissions as a result of the

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Pavley legislation; adding the emissions reductions would be an overestimate of the actual emissions reductions. This is accounted for in the emission reduction calculations following the methodology used by CARB to calculate emissions reductions in the AB 32 Scoping Plan.

R1-T4: TIRE PRESSURE PROGRAM

The AB 32 early action measure involves actions to ensure that vehicle tire pressure is maintained to manufacturer specifications. Automotive service providers are required to check and inflate each vehicle's tires to the recommended tire pressure rating at the time of performing any automotive maintenance or repair service, indicate on the vehicle service invoice that a tire inflation service was completed and the tire pressure measurements after the services were performed, and keep a copy of the service invoice for a minimum of three years, and make the vehicle service invoice available to the ARB, or its authorized representative upon request. By 2020, CARB estimates that this requirement will reduce emissions in California by approximately 0.55 million MT CO₂e, representing 0.3 percent of emissions from passenger/light-duty vehicles in the state.

R1-T5: LOW ROLLING RESISTANCE TIRES

This AB 32 early action measure would increase vehicle efficiency by creating an energy efficiency standard for automobile tires to reduce rolling resistance. By 2020, this requirement will reduce emissions in California by approximately 0.3 million MT CO₂e, representing 0.2 percent of emissions from passenger/light-duty vehicles in the state.

R1-T6: LOW FRICTION ENGINE OILS

This AB 32 early action measure would increase vehicle efficiency by mandating the use of engine oils that meet certain low friction specifications. By 2020, this requirement will reduce emissions in California by approximately 2.8 million MT CO₂e, representing 1.7 percent of emissions from passenger light-duty vehicles in the state.

R1-T7: GOODS MOVEMENT EFFICIENCY MEASURES

This AB 32 early action measure targets system wide efficiency improvements in goods movement to achieve GHG reductions from reduced diesel combustion. By 2020, this requirement will reduce emissions in California by approximately 3.5 million MT CO₂e, representing 1.6 percent of emissions from all mobile sources (on-road and off-road) in the state.

R1-T8: HEAVY-DUTY VEHICLE GHG EMISSION REDUCTION (AERODYNAMIC EFFICIENCY)

This AB 32 early action measure would increase heavy-duty vehicle (long-haul trucks) efficiency by requiring installation of best available technology and/or CARB approved technology to reduce aerodynamic drag and rolling resistance. By 2020, this requirement will reduce emissions in California by approximately 0.93 million MT CO₂e, representing 1.9 percent of emissions from heavy-duty vehicles in the state.

R1-T9: MEDIUM AND HEAVY-DUTY VEHICLE HYBRIDIZATION

The implementation approach for this AB 32 measure is to adopt a regulation and/or incentive program that reduce the GHG emissions of new trucks (parcel delivery trucks and vans, utility trucks, garbage trucks, transit buses, and other vocational work trucks) sold in California by replacing them with hybrids. By 2020, this requirement will reduce emissions in California by approximately 0.5 million MT CO₂e, representing 0.2 percent of emissions from all on-road mobile sources in the state. This reduction is also equivalent to a 1.0 percent reduction of emissions from all heavy-duty trucks in the state.

R2 Local Transportation Measures

The following list of R2 transportation related measures are those measures that Escondido would implement in order to reduce emissions beyond the emissions reduction associated with the R1 state measures described above.

R2-T1: LAND USE BASED TRIPS AND VMT REDUCTION POLICIES

GHG Reduction Potential:

The traffic study prepared for the General Plan Update altered trip rates according to the increases in density and mixed use included in the General Plan. Therefore, the emissions reductions associated with this measure are accounted for, but the savings cannot be calculated separately.

Community Co-Benefits:



Cost Savings:

Cost and savings estimates are not available for this strategy.

The demand for transportation is influenced by the density and geographic distribution of people and places. Whether neighborhoods have sidewalks or bike paths, whether homes are within walking distance of shops or transit stops will influence the type and amount of transportation that is utilized. By changing the focus of land use from automobile centered transportation, a reduction in vehicle miles traveled would occur. Escondido has incorporated many policies into the Escondido General Plan that promote smart growth, complete streets, mixed use projects, and transit oriented development. These policies would help to promote walking and bicycling and reduce overall VMT. Specifically, Escondido is targeting the following areas as mixed use overlays:

- Escondido Boulevard at Felicita Avenue
- Centre City Parkway at Brotherton Avenue
- East Valley Parkway at Ash Street

These mixed use overlay areas are transit oriented in nature by incorporating features such as bus stops and multi-modal connections that promote the use of alternative transportation. In addition, mixed use overlay areas are pedestrian friendly environments that incorporate trails, pathways, bikeways, and safe crosswalks to connect neighboring uses.

Additionally, Escondido's General Plan identifies Targeted Opportunity Areas where land use changes are anticipated and development shall be based on smart growth principles that promote compact, walkable development patterns in close proximity to transit, and strong multi-modal connection to adjacent areas. Refer to the Land Use and Community Form Element of the General Plan for more information on the following Target Areas:

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1. Transit Station Target Area
2. Highway 78 at Broadway Target Area
3. South Quince Street Target Area
4. S. Escondido Boulevard/Center City Parkway Target Area
5. S. Escondido Boulevard/Felicita Avenue Target Area
6. Centre City Parkway/Brotherton Road Target Area
7. Westfield Shoppingtown Target Area
8. East Valley Parkway Target Area
9. Promenade Retail Center
10. Felicita Corporate Office Target Area

Projects in Escondido may be eligible for Statutory Exemptions under CEQA and/or CEQA streamlining provisions if the project is consistent with the requirements of a Sustainable Communities Project (SCP) or a Transit Priority Project (TPP) under SB 375. The criteria identified in SB 375 are described below; however, the City, as the CEQA lead agency for projects within its jurisdiction, makes this determination and would be responsible for establishing a protocol for implementing the provisions and approving TPPs in Escondido. After SANDAG has adopted the SCS and CARB has accepted the determination that the SCS can achieve the regional GHG reduction target, then the City can determine that a project is a TPP. The project must be consistent with the general use designation, density, building intensity, and applicable policies identified in the SCS. In addition, the project must be:

1. At least 50 percent residential use, based on total building square footage and, if a project contains between 26 percent and 50 percent non-residential uses, a FAR of not less than 0.75;
2. Minimum density of at least 20 dwelling units per acre; and,
3. Be within one-half mile of a major transit stop or high-quality transit corridor (defined as having 15-minute frequencies during peak periods) that is included in the SANDAG 2050 RTP.

If a project meets all of these criteria, it may be analyzed under a new environmental document created by SB 375, called the Sustainable Communities Environmental Assessment, or through an EIR for which the content requirements have been reduced. These two options are described below:

1. The Sustainable Communities Environmental Assessment is similar to a Mitigated Negative Declaration and would need to include an analysis of all significant environmental effects, as well as mitigation measures to reduce those impacts to an insignificant level.
2. If an EIR were prepared for a TPP, the document would not need to include an analysis of cumulative impacts, or of GHG emissions from cars and light duty trucks. In addition, project alternatives – as required in EIRs – need not address reduced density of off-site location alternatives.

4.2 TRANSPORTATION

In order to be eligible for a full statutory CEQA exemption, the project would need to meet all the requirements described above for TPPs and meet the criteria for a SCP. The TPP criteria needed to meet the SCP would be incorporated in the City's regulatory ordinances. A SCP must comply with the following environmental criteria:

1. The TPP served by existing utilities and the applicant has paid or committed to pay all applicable fees.
2. The site of the TPP does not contain wetlands or riparian areas, does not have significant value as a wildlife habitat, and the TPP does not harm any protected species.
3. The TPP is not included on any sites on the Cortese List.
4. The TPP is subject to a preliminary endangerment assessment to determine the existence of any hazardous substance on the site and to determine the potential for exposure of future occupants to significant health hazards from the area.
5. The TPP does not have a significant effect on historical resources.
6. The TPP site is not subject to:
 - a. a wildland fire hazard, as determined by CalFire,
 - b. an unusually high risk of fire or explosion from materials stored or used on nearby properties,
 - c. risk of a public health exposure,
 - d. seismic risk as a result of being within a delineated earthquake fault zone or a seismic hazard zone, and
 - e. landslide hazard, flood plain, flood way, or restriction zone.
7. The TPP is not located on developed open space (parkland).
8. The TPP buildings are 15 percent more energy efficient than Title 24 and use 25 percent less water than average households.

A sustainable communities project must also comply with the following land use criteria:

1. TPP site is not more than eight acres.
2. TPP does not contain more than 200 residential units.
3. TPP does not result in a net loss of affordable housing within the project area.
4. TPP does not include any single level building exceeding 75,000 square feet.
5. Applicable mitigation measures or performance standards from prior EIRs have been incorporated.
6. TPP does not conflict with nearby industrial uses.
7. TPP is located within one-half mile of a rail transit station or high-quality transit corridor, or ferry terminal that have been included in a RTP.

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8. The TPP meets one of the following criteria (PRC Section 21155.1 (c)):
 - a. the TPP will sell at least 20 percent of housing to families of moderate income, 10 percent of housing will be rented to families of low income, or at least 5 percent of the housing is rented to families of very low income, and the developer provides legal commitments to ensure the continued availability of these housing units for very low, low-, and moderate income households,
 - b. the TPP developer has paid or will pay in-lieu fees sufficient to result in the development of the affordable units described above, and
 - c. the TPP provides public open space equal or greater than 5 acres per 1,000 residents of the project.

R2-T2: BICYCLE MASTER PLAN

GHG Reduction Potential:

2,675 MT CO₂e

These reductions assume a 1% decrease in passenger vehicle trips due to the expanded bicycle network.

Community Co-Benefits:



City Costs:

\$600,000 (one-time cost)

Assumes 10 miles of bike infrastructure at \$60,000 per mile average (League of American Cyclists 2009).

City Savings:

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Private Costs:

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Private Savings:

\$911,519 annually through gasoline savings. The payback for this program would be approximately eight months; however, the City assumes the initial cost, but individuals within the community would receive the fuel savings.

Potential Funding Sources:

SANDAG

Bicycle Network Policy 4.1 of the Mobility Element of the proposed General Plan Update states that Escondido will “maintain and implement a Bicycle Master Plan that enhances existing bike routes and facilities; defines gaps and needed improvements; outlines standards for their design and safety; describes funding resources; and involves the community.” Escondido’s Master Plan for Parks, Trails, and Open Space includes plans for urban trails, which include bicycle paths. This plan was last updated in 1999 and describes a bicycle system that connects across Escondido from North to South as well as East to West, and includes a path surrounding the city.

Implementation of an updated bicycle master plan for the city will ensure safe, adequate bike routes and encourage the replacement of vehicle trips with bicycle trips. This reduces the overall VMT for the city thereby reducing emissions from transportation. The Screening Tables for New Development include an option for projects to incorporate bicycle facilities and connections to the existing bicycle ways in order to earn sufficient points to demonstrate consistency with the goals of this E-CAP.

R2-T3: TRANSIT IMPROVEMENTS

GHG Reduction Potential:

3,785 MT CO₂e

The expansion of the Bus Rapid Transit is estimated to reduce passenger vehicle VMT by 0.47%

The expansion of the North County Transit District rail line is estimated to reduce passenger vehicle VMT by 0.96%

Community Co-Benefits:



City Costs:

A more detailed cost analysis would need to be completed in order to assess the costs that the City would incur from these projects.

City Savings:

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Private Costs:

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Private Savings:

\$1,289,783 annually based on fuel savings from trips taken on public transit rather than private vehicles.

Potential Funding Sources:

SANDAG TransNet

Escondido will continue to coordinate with the NCTD and SANDAG in order to provide timely and cost effective transit services. In particular, Escondido will work to expand the commuter rail system to desirable destinations and provide adequate facilities and connections to pedestrian and bicycle systems.

Comment: Escondido currently has two major transit improvements in operation:

- 1) Downtown multi-modal station on West Valley Parkway and,
- 2) Bus Rapid Transit from the Multi-modal transit station to Westfield Shoppingtown.

SANDAG’s 2050 RTP includes plans for a high speed rail station in Escondido along with expansion of the existing SPRINTER line in Escondido. A list is provided below for projects planned in Escondido:

- 2018: Bus Rapid Transit from Escondido to UTC via Mira Mesa Boulevard
- 2018: Bus Rapid Transit from Escondido to Downtown
- 2018: Rapid Bus from Escondido to Del Lago via Escondido Boulevard & Bear Valley Parkway
- 2030: SPRINTER double tracking to increase frequencies of trains
- 2030: SPRINTER Express Train
- 2035: Rapid Bus from Downtown Escondido to East Escondido

For new projects, Escondido will include an option in the Screening Tables for New Development for a project to earn points for incorporating transit-supporting facilities into the project design.

R2-T4: TRANSPORTATION DEMAND MANAGEMENT

GHG Reduction Potential:

5,221 MT CO₂e

TDM programs are estimated to reduce VMT from commute trips by 4%; however, in combination with the other R2 measures, this measure's effectiveness is reduced. The effectiveness was reduced by 40% and thus, reductions in VMT due to R2-T4 were estimated at 2.4%.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

Minimal administrative fees

Private Savings:

\$1,779,012 annually, based on decreased fuel use

Potential Funding Sources:

SANDAG

Transportation Demand Management (TDM) programs work to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation. The City of Escondido would implement this strategy by including a TDM strategy in the Screening Table for New Development; new businesses can earn points by offering programs, facilities and incentives to their employees that would promote carpooling, transit use, and use of other alternative modes.

R3 Other Transportation Measures

The following list of R3 transportation measures are those that complement or support the implementation of the R1 and R2 measures described above, but cannot be quantified.

R3-T1: REGIONAL LAND USE AND TRANSPORTATION COORDINATION

Coordinating with SANDAG, Caltrans, and neighboring jurisdictions enhances the implementation of the R2-T1 and R2-T3 measures described above. Additionally, working with the entire region aids in the state's implementation of SB 375 and helps SANDAG to achieve the GHG emission reduction targets for passenger vehicles.

4.3 Energy

Energy use in buildings represents the second largest source of emissions in Escondido. The state of California has already enacted legislation to promote energy efficiency and the use of renewable energy in the utility companies and new buildings state-wide. The reductions associated with these statewide measures are accounted for in the reduced inventory presented in Chapter 5.

R1 Statewide Energy Reduction Measures

The following list of R1 building energy efficiency related measures are those measures that California has identified in the AB 32 Scoping Plan that will result in emission reductions within Escondido.

R1-E1: RENEWABLE PORTFOLIO STANDARD FOR BUILDING ENERGY USE

SB 1075 (2002) and SB 107 (2006) created the state's Renewable Portfolio Standard (RPS), with an initial goal of 20 percent renewable energy production by 2010. Executive Order S-14-08 establishes a RPS target of 33 percent by the year 2020 and requires state agencies to take all appropriate actions to ensure the target is met. In April 2011, Governor Jerry Brown signed SB 2 (2011), which codified the Executive Order and requires the state to reach the 2020 goal (CARB 2008).

Local implementation of R1-E1 includes a 20-year agreement the City of Escondido has entered into with a company to allow solar equipment to be constructed on City-owned property in exchange for a reduced rate to purchase power produced by the solar equipment during peak demand hours. The City anticipates purchasing approximately 1,072 megawatt hours per year of solar-produced power as a result of this agreement. This agreement is part of SDG&E's commitment to increase renewable energy production as part of implementing SB 2 (2011), the statewide renewable portfolio standard.

R1-E2 AND R1-E3: ASSEMBLY BILL 1109 ENERGY EFFICIENCY STANDARDS FOR LIGHTING (RESIDENTIAL AND COMMERCIAL INDOOR AND OUTDOOR LIGHTING)

AB 1109 mandated that the CEC on or before December 31, 2008, adopt energy efficiency standards for general purpose lighting. These regulations, combined with other state efforts, shall be structured to reduce state-wide electricity consumption in the following ways:

- R1-E2: At least 50 percent reduction from 2007 levels for indoor residential lighting by 2018; and
- R1-E3: At least 25 percent reduction from 2007 levels for indoor commercial and outdoor lighting by 2018.

R1-E4: ELECTRICITY ENERGY EFFICIENCY

This measure captures the emission reductions associated with electricity energy efficiency activities included in CARB's AB 32 Scoping Plan that are not attributed to other R1 or R2 reductions, as described

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in this report. This measure includes energy efficiency measures that CARB views as crucial to meeting the state-wide 2020 target, and will result in additional emissions reductions beyond those already accounted for in California's Energy Efficiency Standards for Residential and Non-Residential Buildings (Title 24, Part 6 of the CCR; hereinafter referred to as, "Title 24 Energy Efficiency Standards") of California's Green Building Standards Code (Title 24, Part 11 of the CCR; or "CalGreen").

By 2020, this requirement will reduce emissions in California by approximately 21.3 million MT CO₂e, representing 17.5 percent of emissions from all electricity in the state. This measure includes the following strategies:

- "Zero Net Energy" buildings (buildings that combine energy efficiency and renewable generation so that they, based on an annual average, extract no energy from the grid);
- Broader standards for new types of appliances and for water efficiency;
- Improved compliance and enforcement of existing standards;
- Voluntary efficiency and green building targets beyond mandatory codes;
- Voluntary and mandatory whole-building retrofits for existing buildings;
- Innovative financing to overcome first-cost and split incentives for energy efficiency, on-site renewables, and high efficiency distributed generation;
- More aggressive utility programs to achieve long-term savings;
- Water system and water use efficiency and conservation measures;
- Additional industrial and agricultural efficiency initiatives; and
- Providing real time energy information technologies to help consumers conserve and optimize energy performance.

R1-E5: NATURAL GAS ENERGY EFFICIENCY

This measure captures the emission reductions associated with natural gas energy efficiency activities included in CARB's AB 32 Scoping Plan that are not attributed to other R1 or R2 reductions, as described in this report. This measure includes energy efficiency measures that CARB views as crucial to meeting the state-wide 2020 target, and will result in additional emissions reductions beyond those already accounted for in the Title 24 Energy Efficiency Standards or CalGreen. By 2020, this requirement will reduce emissions in California by approximately 4.3 million MT CO₂e, representing 6.2 percent of emissions from all natural gas combustion in the state. This measure includes the following strategies:

- "Zero Net Energy" buildings (buildings that combine energy efficiency and renewable generation so that they, based on an annual average, extract no energy from the grid);
- Broader standards for new types of appliances and for water efficiency;
- Improved compliance and enforcement of existing standards;

- Voluntary efficiency and green building targets beyond mandatory codes;
- Voluntary and mandatory whole-building retrofits for existing buildings;
- Innovative financing to overcome first-cost and split incentives for energy efficiency, on-site renewables, and high efficiency distributed generation;
- More aggressive utility programs to achieve long-term savings;
- Water system and water use efficiency and conservation measures;
- Additional industrial and agricultural efficiency initiatives; and
- Providing real time energy information technologies to help consumers conserve and optimize energy performance.

R1-E6: INCREASED COMBINED HEAT AND POWER

This measure captures the reduction in building electricity emissions associated with the increase of combined heat and power activities, as outlined in CARB's AB 32 Scoping Plan. The Scoping Plan suggests that increased combined heat and power systems, which capture "waste heat" produced during power generation for local use, will offset 30,000 gigawatt-hours state-wide in 2020. Approaches to lowering market barriers include utility-provided incentive payments, a possible combined heat and power portfolio standard, transmission and distribution support systems, or the use of feed-in tariffs. By 2020, this requirement will reduce emissions in California by approximately 6.7 million MT CO₂e, representing 7.6 percent of emissions from all electricity in the state.

R1-E7: INDUSTRIAL EFFICIENCY MEASURES

This measure captures the reduction in industrial building energy emissions associated with the energy efficiency measures for industrial sources included in CARB's AB 32 Scoping Plan. By 2020, this requirement will reduce emissions in California by approximately 1.0 million MT CO₂e, representing 3.9 percent of emissions from all industrial natural gas combustion in the state. CARB proposes the following possible state-wide measures:

- Oil and gas extraction regulations and programs to reduce fugitive methane emissions;
- GHG leak reduction from oil and gas transmission;
- Refinery flare recovery process improvements; and
- Removal of methane exemption from existing refinery regulations.

R2 Local Energy Reduction Measures

The following list of R2 energy related measures are those measures that Escondido would implement to reduce GHG emissions beyond the reduction associated with the R1 state measures described above. These measures would be implemented either through the policies in the proposed General Plan Update or through the implementation of the Screening Tables for New Development. Included in the Screening Tables are options that reduce GHG emissions from energy.

R2-E1: RESIDENTIAL ENERGY EFFICIENCY REQUIREMENTS

GHG Reduction Potential:

1,879 MT CO₂e

These emissions reductions assume all new residential units will increase energy efficiency an average of 10% beyond currently adopted California Title 24 standards. Based on the 2008 Title 24 standards, this would result in a 25% decrease in electricity and natural gas use from new residential developments.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

\$4.06 million (one time cost)

100% units going 10% beyond 2008 Title 24 is approximately equivalent to 83% of units increasing efficiency to 15% beyond Title 24.

The cost is based on an estimated \$1,500 per unit to go 15% beyond Title 24 (Anders 2009)

Private Savings:

\$780,000 annually in reduced energy costs, resulting in an estimated 5.2 year payback period on the initial cost.

Potential Funding Sources:

Rebates and incentives from SDG&E and/or CCSE

Construction of new homes allows the opportunity to include energy efficient measures and lessen the impact of the new development on both energy demands and Escondido community-wide GHG emissions. The Screening Tables for New Development contain many measures that go beyond the requirements of Title 24 and can be included in a new project in order to garner points in the screening table and demonstrate consistency with Escondido's GHG reduction goals. These measures include, but are not limited to:

- Install ENERGY STAR-qualified or equivalent appliances, including air conditioning and heating units, dishwashers, water heaters, etc.;
- Install solar water heaters;
- Install ENERGY STAR-qualified or equivalent windows and appropriate insulation per climate zone;
- Install ENERGY STAR-qualified or equivalent lighting;
- Optimize conditions for natural heating, cooling and lighting by building siting and orientation;
- Use features that incorporate natural ventilation;
- Install light-colored "cool" pavements, and strategically located shade trees along all bicycle and pedestrian routes; and
- Incorporate skylights; reflective surfaces, and natural shading in building design and layouts.

There are a variety of financial incentives and programs to assist homeowners that make the implementation of these goals feasible (see Chapter 7: Implementation of this report for details). Additionally, residential and non-residential projects that exceed current California Title 24 Energy standards by a minimum 10 percent are granted expedited plan processing and elimination of the Plan Check Fee Energy Surcharge.

R2-E2: COMMERCIAL ENERGY EFFICIENCY REQUIREMENTS

GHG Reduction Potential:

3,664 MT CO₂e

These emission reductions assume all new residential units will increase energy efficiency an average of 10% beyond currently adopted California Title 24 standards. Based on the 2008 Title 24 standards, these emission reductions assume a 25% decrease in electricity and natural gas use from new commercial developments.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

\$4.6 million (one time cost)

The cost is based on an estimated \$1.00 per square foot to achieve 10% beyond 2008 Title 24 standards (Anders 2009)

Private Savings:

\$2.3 million annually in reduced energy costs, resulting in an estimated 2 year payback period on the initial cost.

Potential Funding Sources:

SDG&E and CCSE

Construction of new commercial buildings allows the opportunity to include energy efficient measures and lessen the impact of the new development on both energy demands and Escondido community-wide GHG emissions. As described in R2-E1 above, Escondido would provide all developers with the Screening Tables for New Development, which includes a list of potentially feasible GHG reduction measures that reflect the current state of the regulatory environment. As long as a developer meets the required point allotment (100 points) the developer will meet the requirements of this E-CAP. This system will provide flexibility in the implementation of this reduction measure. Although not limited to these actions, this reduction goal can be achieved through the incorporation of the following:

- Install ENERGY STAR-qualified or equivalent appliances, including air conditioning and heating units, dishwashers, water heaters, etc.;
- Install solar water heaters;
- Install ENERGY STAR-qualified or equivalent windows and appropriate insulation for climate zone;
- Install ENERGY STAR-qualified or equivalent lighting;
- Install ENERGY STAR-qualified or equivalent computer systems and electronics to reduce electricity need from plug load;
- Optimize conditions for natural heating, cooling and lighting by building siting and orientation;
- Use features that incorporate natural ventilation;
- Install light-colored “cool” pavements, and strategically located shade trees along all bicycle and pedestrian routes; and
- Incorporate skylights; reflective surfaces, and natural shading in building design and layouts.

Additionally, residential and non-residential projects that exceed current California Title 24 Energy standards by a minimum 10 percent are granted expedited plan processing and elimination of the Plan Check Fee Energy Surcharge.

R2-E3: RESIDENTIAL RENEWABLE ENERGY REQUIREMENTS

GHG Reduction Potential:

716 MT CO₂e

These emissions reductions assume 25% of the electricity use from new residential developments would be derived from renewable energy.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

\$12.7 million (one time cost)

This cost is associated with 25% of new residential units installing 2kW solar PV systems at \$7,796/kW (Anders 2009).

Private Savings:

\$739,000 annually from reduced electricity costs, resulting in an estimated 17.2 year payback period on the initial cost

Potential Funding Sources:

CCSE, SDG&E

Construction of new homes allows the opportunity to include renewable energy production and lessen the impact of the new development on both energy demands and Escondido community-wide GHG emissions. The Screening Tables for New Development contain measures that can be included in a new project in order to garner points in the screening table and demonstrate consistency with Escondido's GHG reduction goals. These renewable energy measures include:

- On-site solar photovoltaics
- On-site thermal water heating
- Providing support for off-site solar or wind generation

Renewable energy retrofits of existing homes within the City allow the opportunity to expand renewable energy generation. In addition to the current incentive programs for renewable energy retrofits provided by SDG&E, the Screening Tables for New Development contain a measure that allows developers to provide renewable energy retrofits of existing buildings to offset energy related emissions of their projects. This Screening Table option allows the City to provide renewable energy within the existing community including areas of low-income and disadvantaged communities that would not otherwise have renewable energy and the savings it provides.

R2-E4: COMMERCIAL RENEWABLE ENERGY REQUIREMENTS

GHG Reduction Potential:

2,314 MT CO₂e

These emissions reductions assume 25% of the electricity use from new commercial developments would be derived from renewable energy, and that an average of 5kW of solar photovoltaic cells would be installed per 10,000 square feet of building space.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

\$15 million (one time cost)

This cost represents 5kW of solar photovoltaic per 10,000 square feet of new commercial development at an estimated \$6,526/kW.

Private Savings:

\$2.2 million annually from reduced electricity costs, resulting in an estimated 6.8 year payback period on the initial cost.

Potential Funding Sources:

CCSE, SDG&E

Construction of new commercial buildings allows the opportunity to include renewable energy production and lessen the impact of the new development on both energy demands and Escondido community-wide GHG emissions. The Screening Tables for New Development contain measures that can be included in a new project in order to garner points in the screening table and demonstrate consistency with Escondido's GHG reduction goals. In addition, this measure would provide an incentive for facilities to be equipped with "solar ready" features where feasible to facilitate future installation of solar energy systems. These features would include optimal solar orientation for buildings (south facing roof sloped at 20 degrees to 55 degrees from the horizontal), clear access on south sloped roofs, electrical conduit installed for solar electric system wiring, plumbing installed for solar hot water systems, and space provided for a solar hot water tank. Additional renewable energy measures include:

- On-site solar photovoltaics
- On-site thermal water heating
- Providing support for off-site solar or wind generation

Renewable energy retrofits of existing non-residential buildings within the City allow the opportunity to expand renewable energy generation. In addition to the current incentive programs for renewable energy retrofits provided by SDG&E, the Screening Tables for New Development contain a measure that allows developers to provide renewable energy retrofits of existing buildings to offset energy related emissions of their projects. This Screening Table option allows the City to provide renewable energy within the

existing community including areas of low-income and disadvantaged communities that would not otherwise have renewable energy and the savings it provides.

R2-E5: RESIDENTIAL ENERGY RETROFITS

GHG Reduction Potential:

4,086 MT CO₂e

These emissions reductions assume 8% of the electricity and natural gas use from existing residential developments will be reduced through retrofits.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

\$13.7 million (one time cost)

Cost estimates based on USD EPIC study assumptions: \$0.75/kWh and \$4.35/therm (Anders 2009)

Private Savings:

\$3.2 million annually from reduced energy costs, resulting in an estimated 4.3 year payback period on the initial cost.

Potential Funding Sources:

CCSE, SDG&E

Existing homes, particularly those built prior to implementation of the Title 24 requirements of 1978, are a large source of GHG emissions attributed to energy use. By retrofitting existing homes with energy efficiency upgrades and renewable energy generation systems, homeowners can reduce their monthly energy bills while also reducing GHG emissions. Because this strategy targets existing homes, it is not implemented through the Screening Tables for New Development. In order to implement this strategy, Escondido would coordinate with local agencies such as the California Center for Sustainable Energy (CCSE), SDG&E, and SANDAG in order to educate homeowners about rebates and incentive programs available for energy upgrades and renewable energy installations. Although not limited to these actions, this reduction goal can be achieved through the incorporation of the following:

- Replace inefficient air conditioning and heating units with ENERGY STAR-qualified or equivalent models;
- Replace older, inefficient appliances with ENERGY STAR-qualified or equivalent models;
- Seal and insulate homes to stop drafts, block heat loss in winter, and block heat gain in summer;
- Replace old windows and insulation with ENERGY STAR-qualified or equivalent windows and insulation;
- Install solar water heaters;
- Replace inefficient and incandescent lighting with energy efficient lighting; and
- Weatherize the existing building to increase energy efficiency.

R2-E6: COMMERCIAL ENERGY RETROFITS

GHG Reduction Potential:

3,101 MT CO₂e

These emissions reductions assume 8% of the electricity and natural gas use from existing commercial developments would be reduced through retrofits.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

\$3.5 million (one time cost)

Private Savings:

\$3.3 million annually from reduced energy costs, resulting in an estimated 1.1 year payback period on the initial cost.

Potential Funding Sources:

CCSE, SDG&E

Existing commercial buildings, particularly those built prior to implementation of the Title 24 requirements of 1978, are also a large source of GHG emissions attributed to energy use. By retrofitting existing buildings with energy efficiency upgrades and renewable energy generation systems, business owners can reduce their monthly energy bills while also reducing GHG emissions. Because this strategy targets existing buildings, it is not implemented through the Screening Tables for New Development. In order to implement this strategy, the City of Escondido would coordinate with local agencies such as CCSE, SDG&E, and SANDAG in order to educate business owners about rebates and incentive programs available for energy upgrades and renewable energy installations. Although not limited to these actions, this reduction goal can be achieved through the incorporation of the following:

- Replace inefficient air conditioning and heating units with ENERGY STAR-qualified or equivalent models;
- Replace older, inefficient appliances with ENERGY STAR-qualified or equivalent models;
- Seal and insulate buildings to stop drafts, block heat loss in winter, and block heat gain in summer;
- Replace old windows and insulation with ENERGY STAR-qualified or equivalent windows and insulation;
- Install solar water heaters;
- Replace inefficient and incandescent lighting with energy efficient lighting; and
- Weatherize the existing building to increase energy efficiency.

R3 Other Energy Reduction Measures

The following list of R3 energy measures are those that complement or support the implementation of the R1 and R2 measures described above, but cannot be quantified.

R3-E1: REGIONAL ENERGY PLANNING COORDINATION

Implementation of the above R1 and R2 energy measures is supported by coordination with SANDAG, SDG&E, SDAPCD, local non-profits, and other local jurisdictions in the San Diego region to optimize

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energy efficiency and renewable resource development and usage. This allows for economies of scale and shared resources to more effectively implement these environmental enhancements.

R3-E2: ENERGY EFFICIENT DEVELOPMENT, AND RENEWABLE ENERGY DEPLOYMENT FACILITATION AND STREAMLINING

This measure encourages Escondido to identify and remove any regulatory and procedural barriers to the implementation of green building practices and the incorporation of renewable energy systems. This could include the updating of codes and zoning requirements and guidelines. This measure could be further enhanced by providing incentives for energy efficient projects such as priority in the reviewing, permitting, and inspection process. Additional incentives could include flexibility in building requirements such as height limits or set-backs in exchange for incorporating green building practices or renewable energy systems.

R3-E3: ENERGY EFFICIENCY TRAINING AND PUBLIC EDUCATION

This measure provides public education and publicity about energy efficiency measures and reduction programs available within Escondido through a variety of methods including newsletters, brochures, and the city's website. This measure would enhance this existing program by including rebates and incentives available for residences and businesses as well as providing training in green building materials, techniques, and practices for all plan review and building inspection staff.

4.4 Area Source

The following list includes measures related to landscaping and wood burning emissions that will reduce emissions and help the City to achieve an AB 32 compliant reduction target.

R1 Statewide Area Source Reduction Measures

The following R1 area source related measure is implemented by the SDAPCD and will result in emission reductions within Escondido.

R1-A1: LAWNMOWER TRADE-IN PROGRAM

The SDAPCD holds an annual lawnmower trade-in event where residents of San Diego County can turn in their working, gasoline-powered lawn mower in order to purchase a new cordless, rechargeable electric mower at a highly discounted price. This annual event began in the year 2000 with the focus of reducing volatile organic compounds, but the trade-in also reduces GHG emissions. SDAPCD has distributed 5,939 electric lawnmowers. The continued implementation of this program will continue to reduce GHG emissions associated with gas-powered lawnmowers.

R2 Local Area Source Reduction Measures

R2-A1: ELECTRIC LANDSCAPING EQUIPMENT

GHG Reduction Potential:

525 MT CO₂e

The change out from gas powered equipment to electric powered equipment reduces emissions by 39%. The reduction calculations assume all new developments use electricity rather than gas powered equipment.

Community Co-Benefits:



City Costs:

--

City Savings:

--

Private Costs:

There is no additional cost associated with installing external outlets and purchasing electric equipment rather than gas-powered.

Private Savings:

Savings vary depending on fuel used

Potential Funding Sources:

SDAPCD lawn-mower trade-in program

This measure reduces GHG emissions by substituting electric landscaping equipment for the traditional gas-powered equipment. Electric lawn equipment including lawn mowers, leaf blowers and vacuums, shredders, trimmers, and chain saws are available. When electric landscaping equipment is used in place of conventional equipment, direct GHG emissions from natural gas combustion are replaced with indirect GHG emissions associated with the electricity used to power the equipment. In the Screening Tables for New Development, projects would be able to earn points for including accessible outdoor outlets in the project design.

R3 Other Area Source Reduction Measures

The following list of R3 area source measures are those that complement or support the implementation of the R1 and R2 measures described above, but cannot be quantified.

R3-A1: EXPAND CITY TREE PLANTING

Under this reduction measure, the City would evaluate the feasibility of expanding tree planting within Escondido. This includes the evaluation of potential carbon sequestration from different tree species, potential reductions of building energy use from shading, and GHG emissions associated with pumping water used for irrigation. Commercial and retail development is encouraged to exceed shading requirements by a minimum of 10 percent and to plant low emission trees. All future development shall be encouraged to preserve native trees and vegetation to the furthest extent possible. CCSE has an

CHAPTER 4 GHG EMISSIONS REDUCTION PROGRAMS AND REGULATIONS

Advice and Technical Assistance Center for urban forestry that offers public workshops, community events, and information for local governments on urban forestry in San Diego.

R3-A2: REDUCE HEAT ISLAND IMPACTS

The implementation of this measure includes promoting the use of cool roofs, cool pavements, and parking lot shading throughout Escondido by increasing the number of strategically placed shade trees. Further, City-wide Design Guidelines should be amended to include that all new developments and major renovations (additions of 25,000 square feet or more) are encouraged to incorporate the following strategies such that heat gain would be reduced for 50 percent of the non-roof impervious site landscape (including parking, roads, sidewalks, courtyards, and driveways). The strategies include:

- Strategically placed shade trees;
- Paving materials with a Solar Reflective Index (SRI) of at least 29. SRI is a method for evaluating a material based on its solar reflectance and emittance, a standard black material has an SRI of 0 while a standard white material has an SRI of 100. Materials with a higher SRI absorb and emit less heat;
- Open grid pavement system; or
- Covered parking (with shade or cover having an SRI of at least 29).

4.5 Water

R1 Statewide Water Reduction Measure

The following R1 water related reduction measure has been identified in the AB 32 Scoping Plan and will result in emission reductions within Escondido.

R1-W1: RENEWABLE PORTFOLIO STANDARD (33 PERCENT BY 2020) RELATED TO WATER SUPPLY AND CONVEYANCE

This measure would increase electricity production from eligible renewable power sources to 33 percent by 2020. A reduction in GHG emissions results from replacing natural gas-fired electricity production with zero GHG-emitting renewable sources of power. By 2020, this requirement will reduce emissions from electricity used for water supply and conveyance in California by approximately 21.3 million MT CO₂e, representing 15.2 percent of emissions from electricity generation (in-state and imports).

R2 Water Reduction Measure

The following list of R2 water related measures are those measures that Escondido would implement in order to reduce emissions beyond the emissions reduction associated with the R1 state measures described above.

R2-W1: ENERGY EFFICIENT WATER TREATMENT PLANT

GHG Reduction Potential:

13.03 MT CO₂e

Community Co-Benefits:



City Costs:

\$31,398 - \$6,720 SDG&E rebates = \$24,678 (one time cost)

City Savings:

\$5,097 annually in reduced energy costs, resulting in an estimated 4.8 year payback period on the initial cost.

Private Costs:

--

Private Savings:

--

Potential Funding Sources:

SDG&E

Escondido's Energy Roadmap, completed in coordination with SANDAG, included energy audits and recommended Energy Conservation Measures (ECM) for reducing energy use in the City's facilities. For the Water Treatment Plant, the ECMs and annual kWh savings include:

- ECM 1: Replace Parking Lot Lighting with Fluorescent – 7,717 kWh saved
- ECM 2: Replace Sedimentation Pool Lighting with Induction – 13,490 kWh saved
- ECM 3: Replace T12 Lamps with T8 Lamps – 2,759 kWh saved
- ECM 4: Replace Electric Resistance Block Heater on Backup Generator – 16,248 kWh saved

The Energy Roadmap estimates a total savings of 39,514 kWh/year, which is equivalent to 13.03 MT CO₂e/year. These reductions also equate to a cost savings of \$5,097/year. These savings will be experienced at a municipal level as well as community-wide.

R2-W2: WATER CONSERVATION STRATEGIES

GHG Reduction Potential:

327 MT CO₂e

The calculated emission reductions assume all new developments reduce water consumption by 20%.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

Considered negligible if implemented with new development

Private Savings:

\$517,917 annually in reduced water costs.

Potential Funding Sources:

County Water Authority rebates

Importing water from either the State Water Project via the California Aqueduct or the Colorado River is an energy intensive process. The energy used to transport, treat, and deliver this imported water in Escondido results in GHG emissions. In contrast, water derived from local sources does not need to be transported as far. By reducing water use, Escondido can reduce the amount of imported water and utilize more of the local sources. Escondido is already implementing programs to conserve water, these include:

- City Ordinance 96-14 requires that residential and non-residential remodel improvements valued at or more than \$23,828.00 shall retrofit all existing toilets, showerheads and faucets with low-flow (2.2 GPM) faucets/showerheads and low-flush (1.6 GPF) toilets
- Free home outdoor water surveys to single-family customers
- Incentives for businesses and multi-family customers targeting at reducing outdoor water use.
- Education and public outreach in the form of presentations to elementary school students about water conservation
- 20-Gallon Challenge participant

In addition to these programs Escondido would include measures in the Screening Table for New Development that aim to increase the use of recycled water, incorporate water efficient fixtures, drought tolerant landscaping, permeable hardscapes, and on-site stormwater capture and reuse facilities. Many of these water conservation strategies are included in the new CalGreen building standards; however, the Screening Table would allow new development projects the opportunity to exceed these standards in order to attain points toward the goal of achieving 100 points.

R2-W3: INCREASED RECYCLED WATER USE

GHG Reduction Potential:

916 MT CO₂e

By using reclaimed water rather than imported water, emissions are reduced by 81%. These emission reductions assume 5% of Escondido's water is converted to reclaimed water.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

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Private Savings:

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Potential Funding Sources:

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California water supplies come from a variety of sources including ground water, surface water, and reservoirs. For Southern California in particular, much of the water is transported over long distances, which can require a substantial amount of electricity. Recycled, or reclaimed, water is water reused after wastewater treatment for non-potable uses instead of returning the water to the environment. Since less energy is required to provide reclaimed water, fewer GHG emissions are associated with reclaimed water use compared to the average California water supply use. The Screening Table would allow new development to achieve points by including the use of recycled water.

A more detailed, in depth cost analysis would need to be completed to determine the City's costs and savings as well as those to the City's customers. Potential costs include recycled water infrastructure and expanded operations at water treatment plant. Potential savings include less imported water and lower rates for consumers.

R3 Other Water Reduction Measure

The following R3 water measure complements the implementation of the R1 and R2 measures described above, but cannot be quantified.

R3-W1: WATER EFFICIENCY AND CONSERVATION EDUCATION

Under this measure the City, in coordination with local water purveyors would continue to implement its public information and education program that promotes water conservation (see page 4-4 for information on Escondido's existing program). The program could be expanded to include certification programs for irrigation designers, installers, and managers, as well as classes to promote the use of drought tolerant, native species and xeriscaping. Xeriscaping refers to landscaping techniques that eliminate the need for water.

4.6 Solid Waste

R1 Statewide Solid Waste Measure

The following R1 measure has been identified in the AB 32 Scoping Plan as a statewide measure that would result in emission reductions associated with solid waste.

R1-S1: WASTE MEASURES

The CARB AB 32 Scoping Plan recommends three measures for reducing emissions from Municipal Solid Waste at the state level, including: 1) landfill methane control; 2) increase the efficiency of landfill methane capture; and 3) high recycling/zero waste. CARB approved a regulation implementing the discrete early action program for methane recovery (1), which became effective June 17, 2010. This measure is expected to result in a 1.0 million MT CO₂e reduction by 2020. Other measures proposed by CARB include increasing efficiency of landfill methane capture (2) and instituting high recycling/zero waste policies (3). Potential reductions associated with these measures are still to be determined.

R2 Local Solid Waste Measure

At a local level, Escondido would implement the following R2 solid waste related measure to reduce emissions beyond the emissions reduction associated with the R1 state measure described above.

R2-S1: WASTE DISPOSAL PROGRAMS

GHG Reduction Potential:

6,212 MT CO₂e

The emissions reductions account for a 15% decrease in non-construction waste sent to landfills. Non-construction waste represents 87.6% of Escondido's total waste.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

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Private Savings:

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Potential Funding Sources:

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In 2006, the City of Escondido's diversion rate was 53 percent. Beginning in 2007, CIWMB began monitoring jurisdictions under a different metric; the diversion rates have been replaced with waste disposal per resident or per employee. The disposal rate targets established for Escondido are 5.9 pounds per resident and 16.5 pounds per employee per year. In 2009, Escondido's annual per capita disposal rates were 5.3 pounds per resident, below the residential target, and 16.5 pounds per employee, meeting the employee target. By disposing less than the targets set by CIWMB, Escondido is sending less waste to the landfill.

This reduction measure sets a more stringent target for Escondido to achieve 15 percent below each of the per capita targets for waste disposal. This would be equivalent to a disposal rate of 5 pounds per resident and 14 pounds per employee. This measure would be implemented through the Screening Tables by allocating points to new development projects that incorporate strategies to reduce the amount of waste disposed at landfills.

A more detailed, in depth cost analysis would need to be completed to determine the community's costs and savings associated with this measure. Potential costs include costs associated with expanded recycling facilities and increased recycling pickups. Potential savings include lower fuel costs as a result of less frequent waste pick-ups and lower operating costs at landfills.

R3 Other Solid Waste Measures

The following list of R3 energy measures are those that complement or support the implementation of the R1 and R2 measures described above, but cannot be quantified.

R3-S1: ENCOURAGE INCREASED EFFICIENCY OF GAS TO ENERGY SYSTEM

Sycamore landfill currently operates a gas-to-energy system that captures methane gas from the landfill and converts it to electricity producing a capacity of approximately 1.5 megawatts. This measure encourages Sycamore to keep current with upgrades in efficiencies to gas-to-energy systems and to upgrade as feasible when significant increases in conversion efficiencies are available. Escondido's waste is deposited in the Sycamore Landfill, so the GHG emissions from Escondido's solid waste are dependent on the waste management and methane capture systems in place at Sycamore. Any reductions in GHG emissions from the landfill will, in turn, reduce Escondido's GHG emissions from solid waste generation.

R3-S2: WASTE-RELATED EDUCATION AND OUTREACH

This measure builds upon Escondido's existing waste education program to provide public education and increased publicity about commercial and residential recycling. This measure includes educating the public about waste reduction options available at both residential and commercial levels, including composting, yard waste recycling, waste prevention, and available recycling services.

4.7 Construction

R2 Local Construction Measure

Although construction emissions make up a small portion of Escondido’s total emissions, the following R2 Construction measure would further reduce GHG emissions from construction.

GHG Reduction Potential:

229 MT CO₂e

The emissions reductions account for a 10% decrease in construction-related GHG emissions.

Community Co-Benefits:



City Costs:

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City Savings:

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Private Costs:

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Private Savings:

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Potential Funding Sources:

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R2-C1: CONSTRUCTION EMISSIONS REDUCTIONS

This measure would reduce construction-related GHG emissions by 10 percent. The following measures will be incorporated into the Screening Tables for New Development as options for new projects to reduce their emissions:

- Turn off all diesel-powered vehicles and gasoline-powered equipment when not in use for more than five minutes.
- Use electric or natural gas-powered construction equipment in lieu of gasoline or diesel-powered engines, where feasible.
- Require 10 percent of the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters, and/or CARB-certified Tier III equipment or better.
- Support and encourage ridesharing and transit incentives for the construction crew.

A more detailed, in depth cost analysis would need to be completed to determine the community’s costs and savings associated with this measure. Potential costs include costs associated with replacing gasoline or diesel-powered equipment, or installing technology to reduce emissions. Potential savings include lower fuel costs as a result of less fuel being used during idling and the increased use of alternative power sources.

Chapter 5

Meeting 2020 GHG Reduction Targets

CHAPTER 5 MEETING 2020 GHG REDUCTION TARGETS

Combined statewide and local GHG reduction measures will achieve the required 20 percent reduction target for Escondido by 2020. The City is projected to emit a total of 992,583 MT CO₂e without the incorporation of reduction measures by 2020. With implementation of the reduction measures discussed in Chapter 4, Escondido emissions for 2020 would be reduced to 788,127 MT CO₂e. The statewide reduction measures (the R1 Measures in Chapter 4) would reduce Escondido’s emissions by 17 percent and make a substantial contribution toward reaching the 2020 reduction target. However, the City would need to supplement the state measures with the implementation of the local reduction measures (R2 measures) discussed in Chapter 4 to achieve the remaining 3 percent reduction in GHG.

5.1 Reductions from Statewide Measures

The following tables summarize the GHG reductions afforded to the City of Escondido from the implementation of the statewide R1 reduction measures. Table 5-1 shows the annual MT CO₂e and the corresponding percent of emissions reduced for each of the R1 statewide measures described in Chapter 4 during the year 2020. Note that some R1 measures are not quantifiable and are not included in Table 5-1.

Table 5-1 Statewide Measures and Associated Emissions Reduced from the 2020 Inventory		
Transportation	MT CO₂e Reduced	% of Transportation Emissions
R1-T1 & R1-T2: Pavley Vehicle Efficiency	58,405	13.9%
R1-T3: Low Carbon Fuel Standard	26,009	6.2%
R1-T4: Tire Pressure	834	0.2%
R1-T5: Low Rolling Resistance Tires	554	0.1%
R1-T6: Low Friction Oils	4,701	1.1%
R1-T7: Goods Movement Efficiency	5,268	1.3%
R1-T8: Aerodynamic Efficiency	1,073	0.3%
R1-T9: Medium/Heavy Duty Hybridization	554	0.1%
Transportation Total	97,398	23.2%
Energy	MT CO₂e Reduced	% of Energy Emissions
R1-E1: RPS – 33% Renewable by 2020	40,772	8.8%
R1-E2: Indoor Residential Lighting	6,136	1.8%
R1-E3: Indoor Commercial and Outdoor Lighting	4,555	1.3%
R1-E4: Electrical Energy Efficiency	3,183	0.9%
R1-E5: Natural Gas Energy Efficiency	1,382	0.3%
R1-E6: Increased Combined Heat and Power	10,532	3.1%
R1-E7: Industrial Efficiency	791	0.2%
Energy Total	67,351	15.3%
Water	MT CO₂e Reduced	% of Water Emissions
R1-W1: RPS – 33% Renewable by 2020	4,044	14.8%
Water Total	4,044	14.8%

5.1 REDUCTIONS FROM STATEWIDE MEASURES

Table 5-2 compares the 2020 inventory (without the incorporation of any reduction measures) to the community-wide emissions with the statewide reductions. As shown in the table, the statewide reduction measures would reduce 17 percent of Escondido’s total community wide annual emissions by the year 2020.

	2020 MT CO ₂ e	State Reductions MT CO ₂ e	2020 Reduced MT CO ₂ e	% Reduction
Transportation	419,741	97,398	322,343	23%
Energy	441,025	67,351	373,674	15%
Area Sources	54,977	0	54,977	0%
Water/Wastewater	27,278	4,044	23,235	15%
Solid Waste	47,273	0	47,273	0%
Construction	2,288	0	2,288	0%
Total	992,583	168,793	823,790	17%

Although the statewide measures would significantly reduce Escondido’s emissions, they would not be enough to reach the established 2020 reduction target. Escondido’s reduction target was calculated as 15 percent below 2005 levels, which equates to 788,176 MT CO₂e. The statewide reduction measures would bring Escondido down to 823,790 MT CO₂e, which leaves 35,641 MT CO₂e to be reduced by measures implemented at the community level, see Table 5-3.

	MT CO ₂ e
2020 with State Reductions	823,790
2020 Reduction Target	788,176
Amount left to Reduce	35,641

The R2 reduction measures described in Chapter 4 would be implemented to reduce the remaining 35,641 MT CO₂e in order to reach the 2020 reduction target for the City of Escondido.

The 2020 Reduction Target is an estimated 20 percent below the 2020 inventory. The statewide reduction measures work to reduce Escondido’s emissions by 17 percent from the 2020 inventory.

	% from 2020 Inventory
2020 Reduction Target	20%
State Reduction Measures	17%
Amount left to Reduce	3%

The remaining 3 percent of emissions would be reduced through the implementation of the R2 reduction measures described in Chapter 4. R2 measures include several categories of reductions: the energy-efficiency measures that the City has incorporated since 2005; measures that implement policies included in the proposed General Plan Update; and additional measures that applicants could include as part of their project when filling out the Screening Table.

5.2 Reductions from Local Measures

The R2 measures discussed in Chapter 4 would be implemented primarily through the Screening Tables for New Development or with General Plan policies. The measures go beyond the State measures to reduce GHG emissions in order to meet the 2020 reduction target. Table 5-5 summarizes the MT CO₂e and the corresponding percentage of emissions reduced for each of the R2 measures. The incorporation of the Statewide R1-E1 Renewable Portfolio Standard measure would indirectly decrease the GHG emission reductions associated with the R2 energy efficiency measure. This is because the Statewide R1-E1 Renewable Portfolio Standard measure reduces the overall GHG emissions associated with the amount of electricity demand. The combination of R1 and R2 measures work together to reduce the overall GHG emissions associated with the production of energy.

Table 5-5 R2 Local Measures and Associated Emissions Reduced from 2020 Inventory		
Transportation	MT CO₂e Reduced	% of Transportation Emissions
R2-T1: Land Use and VMT Reduction Policies*	-	-
R2-T2: Bicycle Master Plan	2,675	0.8%
R2-T3: Transit Improvements	3,785	1.2%
R2-T4: Transportation Demand Management	5,221	2.0%
Transportation Total	11,681	4.0%
Energy	MT CO₂e Reduced	% of Energy Emissions
R2-E1: Residential Energy Efficiency	1,878	0.4%
R2-E2: Commercial Energy Efficiency	3,664	0.9%
R2-E3: Residential Renewable Energy	716	0.2%
R2-E4: Commercial Renewable Energy	2,314	0.5%
R2-E5: Residential Retrofits	4,086	1.0%
R2-E6: Commercial Retrofits	3,101	0.7%
Energy Total	15,759	3.7%
Area Source	MT CO₂e Reduced	% of Area Source Emissions
R2-A1: Electric Landscaping Equipment	526	1.0%
Area Source Total	526	1.0%
Water	MT CO₂e Reduced	% of Water Emissions
R2-W1: Energy Efficient Water Treatment Plant	13	0.1%
R2-W2: Water Conservation Strategies	327	1.4%
R2-W3: Increased Recycled Water Use	916	4.1%
Water Total	1,256	5.6%
Solid Waste	MT CO₂e Reduced	% of Solid Waste Emissions
R2-S1: Waste Disposal Program	6,212	13.1%
Solid Waste Total	6,212	13.1%
Construction	MT CO₂e Reduced	% of Construction Emissions
R2-C1: Construction Emissions Reductions	229	10.0%
Construction Total	229	10.0%
*Note: The GHG emission reductions associated with measure R2-T1 have already been accounted for in the projected VMT calculation included in the traffic study prepared for the General Plan Update.		

5.2 REDUCTIONS FROM LOCAL MEASURES

With the statewide reduction measures and the implementation of the R2 measures, Escondido would reduce its community-wide emissions to a level below the established 2020 reduction target. Table 5-6 summarizes the 2020 inventory emissions, the GHG reductions associated with the statewide and R2 measures, and the reduced 2020 emissions.

Table 5-6 Local Reduction Summary for 2020 Inventory					
	2020 Projected Escondido GHG Emissions MT CO₂e	Local GHG Reductions from R1 Statewide Measures MT CO₂e	Local GHG Reductions From E-CAP R2 Measures MT CO₂e	Reduced 2020 GHG Emissions From State and E-CAP Measures MT CO₂e	% GHG Reduction
Transportation	419,741	97,398	11,681	310,662	26%
Energy	441,025	67,351	15,759	357,914	19%
Area Sources	54,977	0	526	54,451	1%
Water/Wastewater	27,278	4,044	1,256	21,979	19%
Solid Waste	47,273	0	6,212	41,061	13%
Construction	2,288	0	229	2,059	10%
Total	992,583	168,793	35,663	788,127	21%

The majority of the reductions necessary to meet the 2020 target for Escondido would be accomplished through the statewide measures. The percent reduction for each source associated with the state and local GHG reduction measures is shown in Table 5-7. Table 5-8 summarizes the GHG reductions associated with the statewide and R2 measures compared to the 2020 reduction target. The total reduction is 20.6 percent compared to the 2020 Projected Inventory, which exceeds the target reduction of 20 percent.

Table 5-7 Percent Reduction Summary for 2020 Inventory					
	2020 MT CO₂e	State Reductions	% Reduction from State Measures	Local E-CAP Reductions	% Reduction from E-CAP Measures
Transportation	419,741	97,398	23.2%	11,681	2.8%
Energy	441,025	67,351	15%	15,759	3.7%
Area Sources	54,977	0	0.0%	526	1.0%
Water/Wastewater	27,278	4,044	14.8%	1,256	4.6%
Solid Waste	47,273	0	0.0%	6,212	13.1%
Construction	2,288	0	0.0%	229	10.0%
Total	992,583	168,793	17.0%	35,663	3.5%

Table 5-8 Percentage Reduction from 2020 Inventory with the Inclusion of State and Local Measures		
	GHG Emissions MT CO₂e	% from 2020 Inventory
2020 Projected Inventory	992,583	
State Reduction Measures	(168,793)	17.0%
Local E-CAP Reduction Measures	(35,663)	3.6%
2020 Reduced Inventory	788,127	20.6%
2020 Reduction Target	788,176	20%

5.3 Reduced 2020 Community-Wide Emissions Inventory

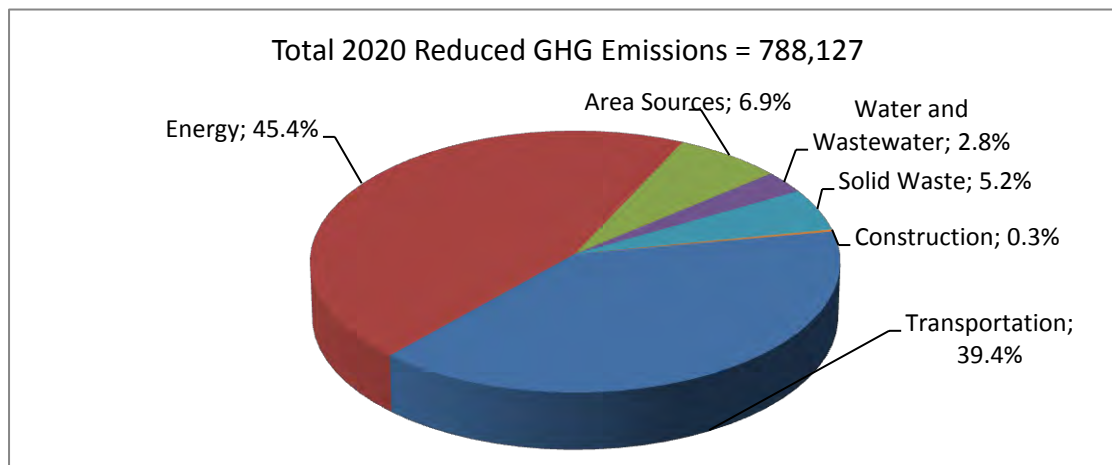
With the implementation of GHG reduction measures, Escondido is projected to reduce its emissions to a total of 788,127 MT CO₂e, which is 49 MT CO₂e below the 2020 reduction target. This is a decrease of 20.6 percent from Escondido’s 2020 emissions inventory and 11 percent from the 2010 emissions. The reduction measures reduce GHG emissions from all sources of community-wide GHG emissions including transportation, energy, area sources, water, and solid waste. The following sections describe the emissions by source and land use category for the year 2020.

Emissions by Source

The emissions by source for the reduced 2020 inventory were calculated by applying a percent reduction to the 2020 emissions for each reduction measure. Table 5-9 summarizes the reduced 2020 City emissions of CO₂e as broken down by emissions category. Figure 5-1 is a graphical representation of the reduced inventory shown in Table 5-9. A detailed breakdown of reduced 2020 emissions by category is available in the Appendix.

Table 5-9 Reduced 2020 GHG Emissions by Source	
Category	Metric tons of CO ₂ e
Energy	357,914
Transportation	310,662
Area Sources	54,451
Solid Waste	41,061
Water and Wastewater	21,979
Construction	2,059
Total	788,127

Figure 5-1 Reduced 2020 GHG Emissions Generated by Source

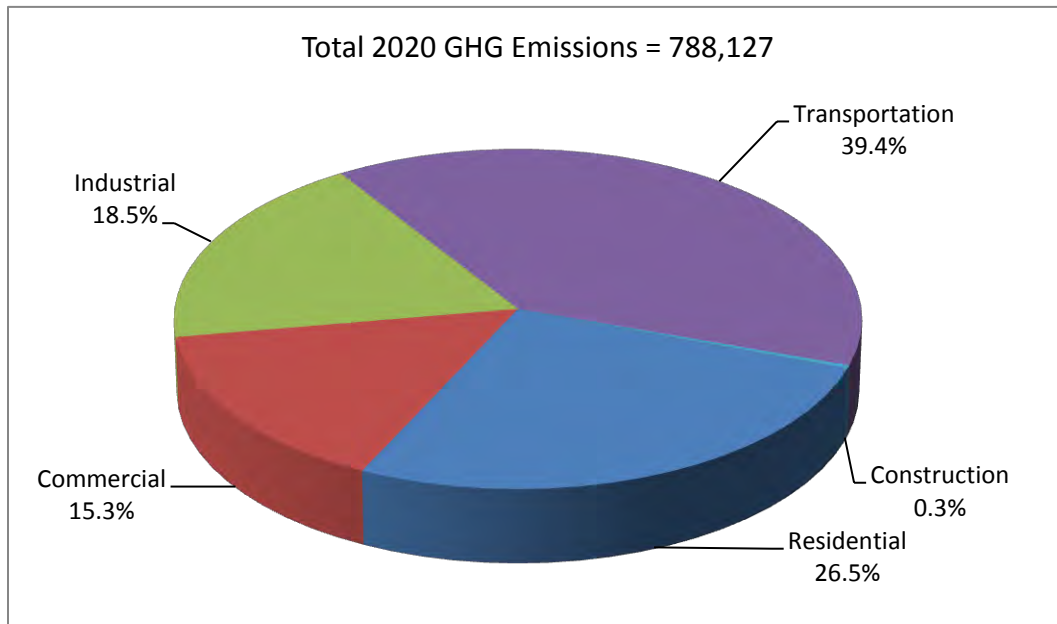


Emissions by Land Use

Table 5-10 summarizes the total amount of community-wide GHG emissions for Escondido in the reduced 2020 inventory by land use category. The largest portion of Escondido’s reduced 2020 emissions would be from transportation (40 percent), followed by emissions from residential land uses (27 percent). Due to the nature of mobile emissions, transportation emissions could not be allocated to the individual land use types. Figure 5-2 provides a comparison of GHG emissions by land use category.

Table 5-10 Reduced 2020 GHG Emissions by Land Use	
Category	Metric tons of CO ₂ e
Transportation	310,662
Residential	208,792
Commercial	120,692
Industrial	145,922
Construction	2,059
Total	788,127

Figure 5-2 Reduced 2020 GHG Emissions by Land Use



5.4 Reduced 2035 Community-Wide Emissions Inventory

Beyond 2035, Escondido's GHG emissions would reduce with the continued implementation of the 2020 reduction strategies, expansion of the transit system according to the SANDAG RTP, and increased stringency of state reduction measures. In addition to the 2020 reduction measures, the following assumptions were included in the reduced 2035 GHG emissions:

- Pavley vehicle efficiency standards would continue beyond 2035 at a similar rate.
- The low carbon fuel standard would increase from 10 percent to 12 percent.
- Bicycle infrastructure would expand such that 2 percent of all passenger vehicle trips are replaced with bicycle trips.
- The post-2020 SPRINTER and Bus Rapid Transit improvements included in the 2050 RTP would increase public transit ridership such that 4.5 percent of passenger trips are replaced with public transit.
- TDM programs would continue and decrease passenger trips by 4 percent.
- The RPS would continue past 2020 and an estimate 37 percent of San Diego's electricity would be derived from renewable sources.
- 15 percent of existing homes and buildings would be demolished and rebuilt by 2035.
- All new homes and commercial buildings would achieve an average of 15 percent beyond 2008 Title 24 standards.
- 30 percent of the electricity use from new homes and buildings would be from renewable sources.
- 30 percent of existing homes and commercial buildings would be retrofitted to achieve 2008 Title 24 standards.
- 10 percent of potable water use would be replaced with recycled water.

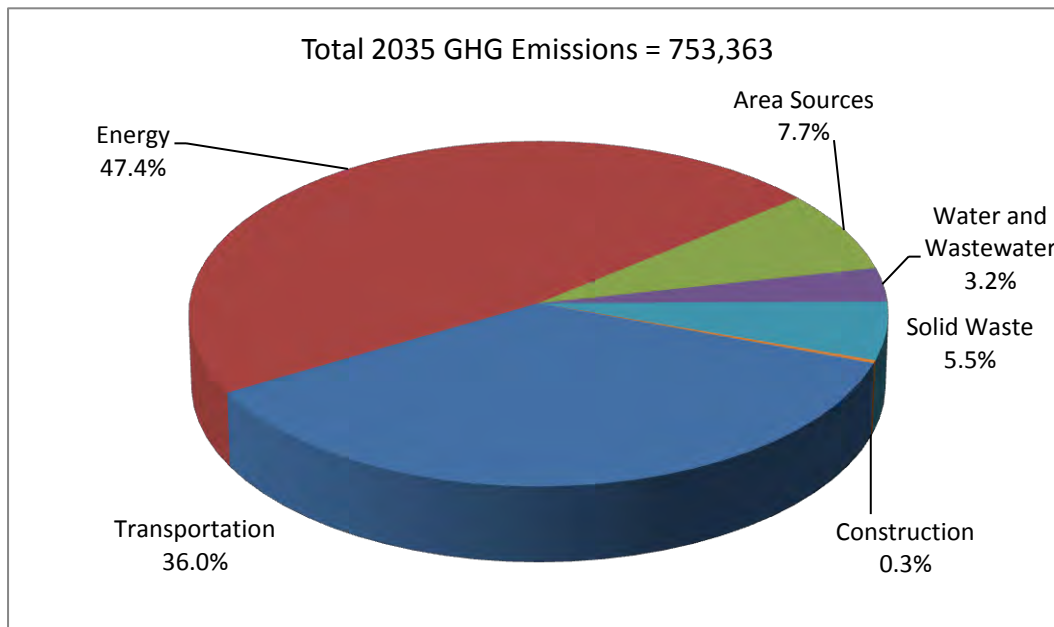
With the continued implementation of the Screening Tables for New Development and predicted future developments at the state level, Escondido's 2035 emissions would be reduced to 753,363 MT CO₂e, this represents a 39 percent decrease from the 2035 emissions inventory and is 4 percent below the 2020 reduction target. The assumptions described above represent one possible scenario for achieving reductions beyond 2020.

Emissions by Source

The emissions by source for the 2035 reduced inventory were calculated by applying a percent reduction to the 2035 emissions inventory for each reduction measure. Table 5-11 summarizes the 2035 Escondido emissions of CO₂e as broken down by emissions category. Figure 5-3 is a graphical representation of Table 5-11. A detailed breakdown of the reduced 2035 emissions by category is available in the Appendix.

Table 5-11 Reduced 2035 GHG Emissions by Source	
Category	Metric tons of CO ₂ e
Transportation	271,436
Energy	357,294
Area Sources	57,733
Water and Wastewater	23,779
Solid Waste	41,061
Construction	2,059
Total	753,363

Figure 5-3 Reduced 2035 GHG Emissions by Source

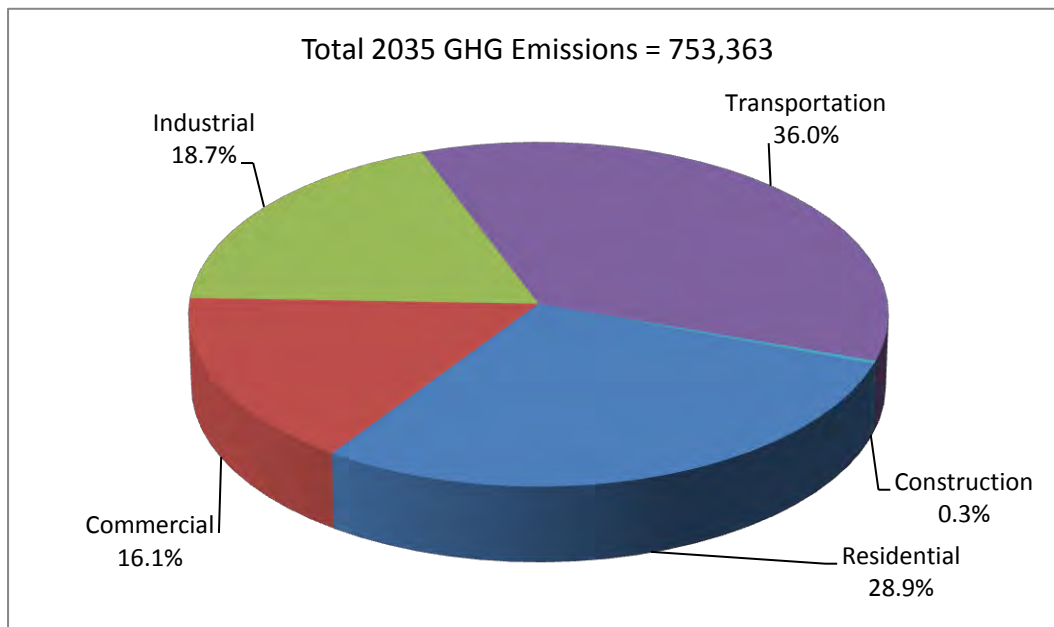


Emissions by Land Use

Table 5-12 summarizes the total amount of community-wide GHG emissions by land use type for Escondido in 2035 with the reduction measures. Escondido is projected to emit 753,363 MT CO₂e in 2035. The largest portion of Escondido’s 2035 reduced emissions are from transportation (36 percent), followed by emissions from residential land uses (29 percent). Due to the nature of mobile emissions, transportation emissions could not be allocated to the individual land use types. Figure 5-4 provides a comparison of GHG emissions by land use category.

Table 5-12 Reduced 2035 GHG Emissions by Land Use	
Category	Metric tons of CO ₂ e
Transportation	271,436
Residential	217,884
Commercial	121,011
Industrial	140,973
Construction	2,059
Total	753,363

Figure 5-4 Reduced 2035 GHG Emissions by Land Use



5.5 Emissions Summary

With the implementation of the reduction measures outlined in Chapter 4, Escondido would reduce its emissions to a level below the 2020 reduction target calculated in Chapter 3. This represents a 21 percent decrease from the 2020 inventory and is consistent with the State's GHG reduction goals. Table 5-13 summarizes the existing 2010 emissions, the 2020 emissions inventory, and the reduced 2020 emissions.

Source Category	Metric tons of CO ₂ e			
	2010	2020	Reduced 2020	% Reduced
Transportation	368,622	419,741	310,662	26%
Energy	395,565	441,025	357,662	19%
Area Sources	52,559	54,977	54,451	1%
Water and Wastewater	25,360	27,278	21,979	19%
Solid Waste	41,724	47,273	41,061	13%
Construction	2,288	2,288	2,059	10%
Total	886,118	992,583	788,127	21%
Emission Reduction Target		788,176	788,176	
Below Reduction Target?		No	Yes	
Note: Mass emissions of CO ₂ e shown in the table are rounded to the nearest whole number. Totals shown may not add up due to rounding.				

Beyond 2020, these reduction measures would continue to reduce emissions particularly from new development projects and transportation. Although Escondido's growth beyond 2020 would result in more GHG emissions, these emissions can be offset with the implementation of the Screening Tables for New Development and the General Plan's transit oriented development strategies. Table 5-14 summarizes Escondido's existing 2010 emissions, anticipated 2035 emissions inventory, and reduced 2035 emissions.

Table 5-14 shows that the continued implementation of the reduction measures combined with the anticipated increased stringency of state reduction measures would reduce 2035 emissions by 39 percent, which is 4 percent below the 2020 reduction target. The State's ambitious reduction target for the year 2050 is to reduce emissions 80 percent below 1990 emissions. In order to reach this target, technology must advance significantly and more stringent measures for building and vehicle efficiency must be implemented. While the measures included in this E-CAP would provide a plan for Escondido to reduce emissions enough to meet the 2020 target and experience further reductions through to 2035, the E-CAP would need to be updated periodically in the future in order to update these measures.

CHAPTER 5 MEETING 2020 GHG REDUCTION TARGETS

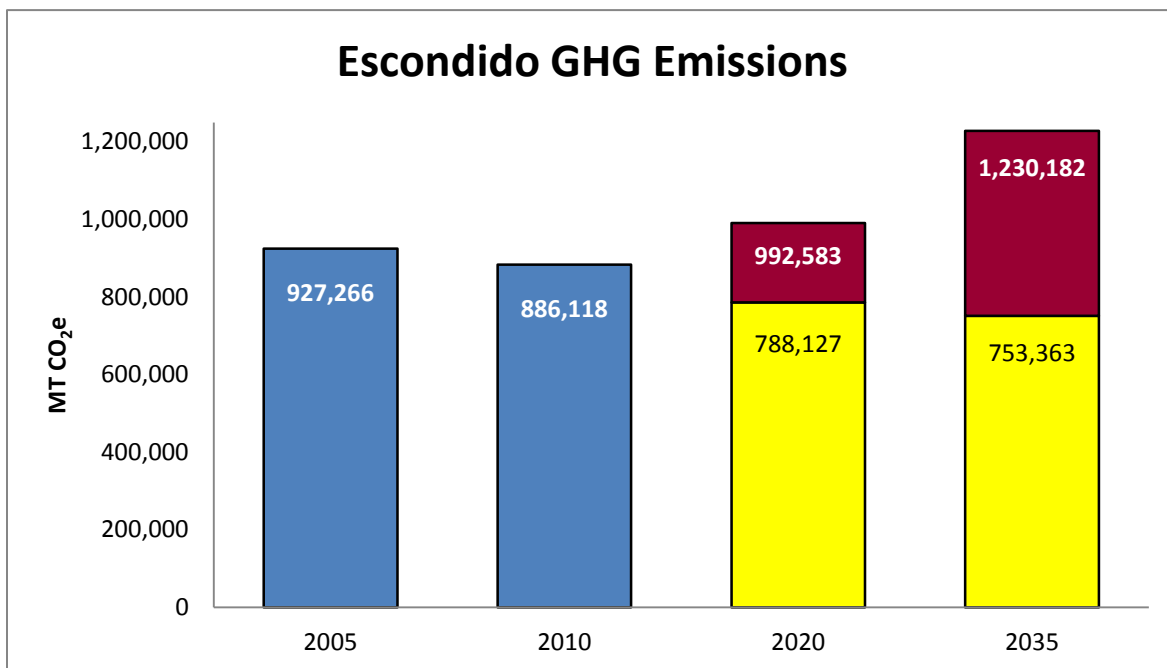
Table 5-14 2035 GHG Emissions Comparison				
Source Category	Metric tons of CO₂e			
	2010	2035 GP Horizon Escondido without GHG reduction measures	Reduced 2035 Escondido with GHG reduction measures	% Reduced
Transportation	368,622	556,818	271,436	51%
Energy	395,565	523,427	357,294	32%
Area Sources	52,559	59,151	57,733	2%
Water and Wastewater	25,360	30,980	23,779	23%
Solid Waste	41,724	57,518	41,061	29%
Construction	2,288	2,288	2,059	10%
Total	886,118	1,230,182	753,363	39%
Emission Reduction Target		788,176	788,176	
Below Reduction Target?		No	Yes	
Note: Mass emissions of CO ₂ e shown in the table are rounded to the nearest whole number. Totals shown may not add up due to rounding.				

Chapter 6 Conclusion

CHAPTER 6 CONCLUSION

This E-CAP serves as a guide to help the City implement the objectives of conserving resources and reducing GHG emissions. This document also serves as a technical resource for the proposed update of Escondido's current General Plan and other land use related documents that may require evaluation and documentation of GHG emissions. Figure 6-1 shows a comparison between the emission inventories, including the reduced 2020 and 2035 inventories. The blue bars represent the calculated GHG inventories for Escondido for 2005 and 2010. The red bars show the projected growth in GHG emissions in 2020 and 2035 based on the General Plan growth rates. The yellow bars demonstrate the reduced inventories after the implementation of the statewide and community reduction measures described in Chapter 4.

Figure 6-1 Escondido GHG Emissions by Year



This E-CAP sets a target to reduce community-wide GHG emission emissions by 15 percent from 2005 levels by 2020 consistent with the California statewide reduction goals in AB 32. The CARB Scoping Plan outlines the reduction strategies designed to meet the statewide reduction goal of AB 32. The City has a reduction strategy as described in Chapter 4 that would meet the State reduction goal. Reduction measures provided herein would ensure that Escondido meets the AB 32 reduction target of reducing to 15 percent below 2005 levels (GHG target of 788,176 MT CO₂e) by 2020. Such programs include strengthening the City's existing ordinances as well as implementing the Screening Tables for New Development. In some cases, implementation will require the cooperation of other agencies, private businesses, and residents. The success of these measures will be tracked using indicators and targets such as those described in this E-CAP. Even with the anticipated growth, the modernization of vehicle fleets, combined with the continued implementation of the proposed measures, will reduce GHG emissions by approximately 206,515 MT CO₂e from 2020 levels. Therefore, the implementation of the State (R1) measures combined with Escondido's R2 and R3 measures will reduce GHG emissions down to 788,127 MT CO₂e by year 2020, which exceeds the reduction target by 49 MT CO₂e.

5.5 EMISSIONS SUMMARY

Beyond 2020, Escondido would continue implementation of the Screening Tables through to 2035, the General Plan horizon year. During this time, the reduction measures implemented through the Screening Tables would continue to reduce GHG emissions from new development. Additionally, it is assumed that the State measures would be reinforced post-2020 to further reduce emissions. With these assumptions, Escondido's emissions would decrease to a level below the 2020 reduction target by 2035. Continued implementation of this E-CAP in post 2020 years is discussed in Chapter 7.

CHAPTER 6 CONCLUSION

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Chapter 7 Implementation

CHAPTER 7 IMPLEMENTATION

This section describes implementation steps for the E-CAP to support achievement of the GHG reduction goals for the community at large. Success in meeting Escondido's GHG emission reduction goal will depend on cooperation, innovation, and participation by the City and residents, businesses, and local government entities. This section outlines key steps that the City would follow for the implementation of this E-CAP.

7.1 STEP 1—Administration and Staffing

The City would implement the following key internal administration and staffing actions:

1. Create a GHG Reduction Team to support and guide the City's efforts to reduce emissions.
2. Designate an Implementation Administrator to oversee, direct and coordinate implementation of the E-CAP as well as monitor and report GHG reduction efforts.

The City GHG Reduction Team would be responsible for the implementing this E-CAP, coordinating among all involved City departments, and recommending modifications and changes to the E-CAP over time. The team will, at a minimum, include the following departments and divisions, but would be expanded as needed to ensure coordinated leadership in plan implementation: engineering, public works, utilities, community services, and community development.

7.2 STEP 2—Financing and Budgeting

Successful implementation of the E-CAP will require a strong commitment from the City and community. Local, regional, state, and federal public sources of funding will be needed along with the substantial involvement of the private sector. The following different financing options would be explored by Escondido:

- State and Federal Grants and Low-interest Loans —As described below there are a variety of grant and loan programs that exist in various sectors.
- Support from Local Businesses, Non-Profits, and Agencies—Opportunities for public/private partnerships (like the SDG&E partnerships) exist to provide cooperation on many aspects of the E-CAP including energy efficiency retrofits, waste minimization, transit promotion, and education.
- Self-Funding and Revolving Fund Programs—Innovative programs to fund residential solar investments.
- Agreements with Private Investors—Energy service companies and other private companies can finance up-front investments in energy efficiency and then be reimbursed through revenues from energy savings.
- Local Funding—Various local governments have used targeted finance instruments for solar, transportation, vehicle improvements, and landfill methane controls.

Given that financing is the key to implementing many measures, a review of current and potential funding sources was completed for the different sectors covered in this E-CAP and is presented below to help early phase implementation of the E-CAP. Whether at the federal, western regional or state level, it appears likely that there will be stronger legislation and/or regulations aimed at further curbing GHG emissions. Such requirements are likely to influence energy prices (for electricity, natural gas, and vehicle fuels), and may make currently cost-ineffective measures more economically feasible and allow the financing of a broader range of plan measures.

Energy Efficiency and Renewable Energy Financing

Federal Energy Efficiency Community Block Grants (EECBG). As part of the stimulus package (the “American Recovery and Reinvestment Act” or ARRA), signed into law by President Obama in spring 2009, block grants are available for energy efficiency planning and improvements in the building, transportation, and other sectors. The purpose of the EECBG Program is to assist eligible entities in creating and implementing strategies to: reduce fossil fuel emissions in a manner that is environmentally sustainable and that maximizes, to the greatest extent practicable, benefits for local and regional communities; reduce the total energy use of the eligible entities; and improve energy efficiency in the building sector, the transportation sector, and other appropriate sectors. Eligible activities include: development of an energy efficiency and conservation strategy; technical consultant services; residential and commercial building energy audits; financial incentive programs; energy efficiency retrofits; energy efficiency and conservation programs for buildings and facilities; development and implementation of certain transportation programs; building codes and inspections; certain distributed energy projects; material conservation programs; reduction and capture of methane and GHG from landfills and dairies; efficiency traffic signals and street lighting; renewable energy technologies on government buildings; and other appropriate activity.

See: <http://www1.eere.energy.gov/wip/eeecbg.html>

Federal Tax Credits for Energy Efficiency. On October 3, 2008, President Bush signed into law the “Emergency Economic Stabilization Act of 2008.” This bill extended tax credits for energy efficient home improvements (windows, doors, roofs, insulation, HVAC, and non-solar water heaters). These residential products during 2008 were not eligible for a tax credit, as previous tax credits had expired at the end of 2007. The bill also extended tax credits for solar energy systems and fuel cells to 2016. New tax credits were established for small wind energy systems and plug-in hybrid electric vehicles. Tax credits for builders of new energy efficient homes and tax deductions for owners and designers of energy efficient commercial buildings were also extended.

See: http://www.energystar.gov/index.cfm?c=products.pr_tax_credits

CHAPTER 7 IMPLEMENTATION

SDG&E Energy Efficiency / Renewable Energy Incentives.

- Sustainable Communities Program. The Sustainable Communities Program advances and promotes the use of clean energy generation technologies within SDG&E's service area. The program strategically integrates utility-owned generation systems, such as photovoltaics, fuel cells and wind power with sustainable building projects to provide energy to the grid. The systems are installed, maintained, and operated by SDG&E.
- California Advanced Homes Incentives. SDG&E offers an incentive for home builders to build homes which exceed 2008 Title 24 standards by 15 percent. The program is open to all single-family and multi-family new construction projects.
- Non-Residential On-Bill Financing Program. This program offers qualified business customers zero percent financing for qualifying natural gas equipment.
- Home Energy Efficiency Rebates. SDG&E offers rebates on many energy-efficient products that can save energy, including attic and wall insulation, dishwashers, pool pumps and motors, refrigerators, room air conditioning, whole house fans, and clothes washers.
- Multi-family Energy Efficiency Rebates. This program offers cash rebates for energy-saving improvements to existing multi-family residential properties of two or more units.
- AC Quality Care. Under this program, a qualified contractor inspects an A/C system and inventories the equipment and diagnoses any service needs. The contractor provides detailed report that shows any recommended maintenance or repairs and the rebates available to offset the costs.
- Summer Saver. SDG&E installs a Summer Saver device central air conditionings unit at no cost to the consumer. The Summer Saver device is activated remotely by a paging signal that lets SDG&E cycle the central air conditioner "on and off" for a few hours on a limited number of summer days when demand for electricity is at a peak. Summer Saver is only used May to October.
- Lighting Exchange Program. SDG&E holds lighting exchanges that allow customers to trade in halogen and incandescent light bulbs for new, energy-efficient compact fluorescent light bulbs or energy-efficient torchiere lamps.
- Home Energy Efficiency Survey. SDG&E offers free home energy efficiency surveys to customers to recommend ways to save energy.
- New Solar Homes Partnership. SDG&E offers builders, developers, and solar contractors financial incentives for energy-saving photovoltaic installations.
- Savings By Design. SDG&E's Savings By Design program offers cash incentives and technical assistance to maximize energy performance in commercial new construction projects.

AB 811 Financing Districts. AB 811 permits the creation of assessment districts to finance installation of distributed generation renewable energy sources or energy efficiency improvements that are permanently fixed to residential, commercial, industrial, or other real property. Escondido will participate in the CaliforniaFIRST Program. The CaliforniaFIRST Program will provide financing for energy efficiency and renewable energy projects on residential and commercial properties. Under

7.2 STEP 2—FINANCING AND BUDGETING

CaliforniaFIRST, the property owner repays the cost of the clean energy project through a line item on their property tax bill.

See: http://www.gosolarcalifornia.org/professionals/2-17-10_CalFIRST_FACT_SHEET.pdf

Energy Upgrade California. Energy Upgrade California is a statewide program that offers cash incentives to single-family homeowners who complete select energy-saving home improvements. Working with participating contractors, homeowners can choose from a variety of participation options to make the energy-saving improvements to correct energy inefficiencies.

See: <https://energyupgradeca.org/overview>.

California Energy Commission Energy Efficiency Financing. The CEC offers up to \$3 million per application in energy efficiency financing and low interest loans to cities and counties for installing energy-saving projects. Examples of projects include: lighting systems, pumps and motors, streetlights and LED traffic signals, automated energy management systems/controls, building insulation, energy generation including renewable and combined heat and power projects, heating and air conditioning modifications, and waste water treatment equipment.

See: <http://www.energy.ca.gov/efficiency/financing/>

California Energy Commission Bright Schools Program. This is a collaborative project of the CEC, California Conservation Corps, local utility companies and other qualifying energy service companies to assist schools in undertaking energy efficiency projects. Project staff will guide schools through identifying and determining a project's feasibility, securing financing for the project, and purchasing and installing the new energy efficient equipment.

See <http://www.energy.ca.gov/efficiency/brightschoools/index.html>

California Solar Initiative (CSI). In January 2006, the California Public Utilities Commission adopted the CSI to provide more than \$3 billion in incentives for solar-energy projects with the objective of providing 3,000 megawatts of solar capacity by 2016. In December 2011, the Commission increased the CSI budget by \$200 million in order to cover a budget shortfall. The action implements SB 585 signed by Governor Jerry Brown on Sept. 22, 2011. The CSI program is administered by Pacific Gas & Electric, Southern California Edison, and CCSE for the SDG&E territory. CSI is comprised of five rebate programs: (1) the general CSI Program of solar rebates for existing homes, new/existing commercial, agricultural, and public agencies; (2) the CSI-Thermal Program for solar hot water rebates for homes and businesses; (3) the Single-family Affordable Solar Homes program for low-income residents that own their own single-family home and meet a variety of income and housing eligibility criteria; (4) the Multifamily Affordable Solar Housing program for multifamily affordable housing; and (5) the CSI Research, Development, Demonstration, and Deployment Program.

See <http://energycenter.org/csi>

Transportation Financing

Federal Energy Efficiency Community Block Grants. As described above, eligible activities include development and implementation of certain transportation programs and efficiency traffic signals and street lighting.

Regional Transportation Improvement Program. The SANDAG 2010 Regional Transportation Improvement Program is funded by the state from the State Transportation Improvement Program and State Highway Operations and Protection Program. Locally, projects are funded with the County Transportation Sales Tax, *TransNet*, as well as sales tax, city General Funds, street taxes, developer fees, and registration fees. Federal funding is also available from the Federal Transit Administration and the Federal Highway Administration.

Interregional Improvement Program. The Interregional Improvement Program is funded from funds made available for transportation capital improvement projects under the State Transportation Improvement Program. This program targets projects that are needed to improve interregional movement of people and goods. Caltrans recommends to the CTC the selection of these projects, which can include state highway improvements, intercity passenger rail, mass transit guideways, or grade separation projects.

Waste Reduction Financing

California Integrated Waste Management Board Grants and Loans. The CIWMB offers funding opportunities authorized by legislation to assist public and private entities in the safe and effective management of the waste stream.

See: <http://www.ciwmb.ca.gov/grants/>

Water Conservation and Treatment Financing

Clean Water State Revolving Funds (CWSRF). CWSRFs fund water quality protection projects for wastewater treatment, nonpoint source pollution control, and watershed and estuary management. CWSRFs have funded over \$74 billion, providing over 24,688 low-interest loans to date.

CWSRF's offer:

- **Low Interest Rates, Flexible Terms**—Nationally, interest rates for CWSRF loans average 2.3 percent, compared to market rates that average 5 percent. For a CWSRF program offering this rate, a CWSRF funded project would cost 22 percent less than projects funded at the market rate. CWSRFs can fund 100 percent of the project cost and provide flexible repayment terms up to 20 years.
- **Funding for Nonpoint Source Pollution Control and Estuary Protection**—CWSRFs provided more than \$167 million in 2009 to control pollution from nonpoint sources and for estuary protection, more than \$3 billion to date.

7.3 STEP 3—TIMELINE AND PRIORITIZATION

- Assistance to a Variety of Borrowers—The CWSRF program has assisted a range of borrowers including municipalities, communities of all sizes, farmers, homeowners, small businesses, and nonprofit organizations.
- Partnerships with Other Funding Sources—CWSRFs partner with banks, nonprofits, local governments, and other federal and state agencies to provide the best water quality financing source for their communities.

See: <http://www.epa.gov/owm/cwfinance/cwsrf/index.htm>

SoCal Water Smart. The SoCal Water Smart program offers rebates to customers of the Metropolitan Water District's member agencies for installing water-saving appliances. Qualifying products include high-efficiency clothes washers, rotating nozzles, and weather-based irrigation controllers.

See: <http://socalwatersmart.com/home>

7.3 STEP 3—Timeline and Prioritization

The City would develop an implementation schedule for the R2 reduction measures. Prioritization would be based on the following factors:

- Cost effectiveness;
- GHG reduction efficiency;
- Availability of funding;
- Level of City Control;
- Ease of implementation; and
- Time to implement.

In general consideration of these factors, the following is an outline of key priorities for three (3) phases starting in 2012 through 2020.

- Phase 1 (2012-2014): Development of key ordinances, completion of key planning efforts, implementation of most cost-effective measures, and support of voluntary efforts.
- Phase 2 (2014–2017): Continued implementation of first tier measures, implementation of second tier measures, and implementation of key planning outcomes from Phase 1.
- Phase 3 (2017–2020): Continued implementation of first and second tier measures, implementation of third tier of measures.

Because the goals of this E-CAP are aggressive, success in meeting the goals depends on some flexibility in the GHG reduction actions. The City is committed to flexibility in implementing the reduction measures and meeting the goals of this E-CAP. Many of the reduction measures in this E-CAP would be

CHAPTER 7 IMPLEMENTATION

implemented through the Screening Tables for New Development. The goals of each reduction measure can often be achieved through a variety of means, especially those related to building energy efficiency. For example, the City would adopt energy efficient design requirements for new development (measures R2-E1 and R2-E2). Compliance with the energy efficient design programs can be achieved through many combinations of actions including (but not limited to): installing energy efficient appliances, lighting, and HVAC systems; installing solar water heaters; siting and orienting buildings to optimize conditions for natural heating, cooling, and lighting; installing top-quality windows and insulation; and incorporating natural shading, skylights, and reflective surfaces. Table 7-1 presents the potential timeline and phasing schedule for the GHG reduction measures.

Table 7-1 GHG Reduction Measure Timeline and Phasing Schedule	
Reduction Measure	Phase
Transportation	
R2-T1: Land Use Based Trips and VMT Reduction Policies	1, 2, 3
R2-T2: Bicycle Master Plan	1, 2, 3
R2-T3: Transit Improvements	2, 3
R2-T4: Transportation Demand Management	1, 2, 3
Energy	
R2-E1: New Residential Energy Efficiency Requirements	1, 2, 3
R2-E2: New Commercial Energy Efficiency Requirements	1, 2, 3
R2-E3: New Residential Renewable Energy Requirements	1, 2, 3
R2-E4: New Commercial Renewable Energy Requirements	1, 2, 3
R2-E5: Existing Residential Energy Retrofits	2, 3
R2-E6: Existing Commercial Energy Retrofits	2, 3
Area Source	
R2-A1: Electric Landscaping Equipment	1, 2, 3
Water	
R2-W1: Energy Efficient Water Treatment Plant	1, 2, 3
R2-W2: Water Conservation Strategies	1, 2, 3
R2-W3: Increase Recycled Water Use	2, 3
Solid Waste	
R2-S1: Waste Disposal Programs	2, 3
Construction	
R2-C1: Construction Emissions Reductions	1, 2, 3

7.4 STEP 4—Public Participation

The citizens and businesses in Escondido are integral to the success of GHG reduction efforts. Their involvement is essential in order to reach the reduction goals because the E-CAP depends on a combination of state and local government efforts, public and private sources of finance, and the voluntary commitment, creativity, and participation of the community at large. The City must strike a balance between development and environmental stewardship to keep the economy strong and, at the same time, protect the environment. Education programs should be developed for stakeholders such as businesses, business groups, residents, developers, and property owners outlining the benefits of the E-CAP's cost-saving measures and streamlined project processing features to encourage participation in efforts to reduce GHG emissions in all possible sectors.

7.5 STEP 5—Project Review

The CEQA guidelines support projects that lower the carbon footprint of new development, and encourage programmatic mitigation strategies that may include reliance on adopted regional blueprint plans, CAPs, and general plans that meet regional and local GHG emissions targets and that have also undergone CEQA review. The criteria needed to use adopted plans in evaluating impacts of GHG emissions from subsequent development projects is found in CEQA Guidelines § 15183.5. Once adopted, this E-CAP fulfills these requirements. The City is responsible for ensuring that new projects conform to these guidelines and meet the goals and requirements outlined in this E-CAP.

The City would implement the reduction measures for new development during the CEQA review, through the use of a local CEQA GHG Emission Screening Table based upon the E-CAP. Proposed projects would first be screened to determine if compliance with the E-CAP measures is required. Small projects that generate less than 2,500 MT CO₂e would be considered to have a “less than significant GHG emissions impact” because of the low amount of GHG emissions generated. Projects this small have a difficult time implementing the R2 measures and would not be able to achieve the 100 point criteria in the Screening Tables. The 2,500 MT CO₂e is based on the County of San Diego's Guidelines for Determining Significance for Climate Change document that was published on February 17, 2012. As stated in the Guidelines, the 2,500 MT CO₂e screening level is based on regional data, including the incorporated cities, and would be appropriate to be used by lead agencies in the region other than the County of San Diego Department of Planning and Land Use.

If a project is anticipated to generate more than 2,500 MT CO₂e, the project would be required to use the screening table to demonstrate compliance with the E-CAP. The screening table will provide a menu of reduction options. A project that obtains a minimum of 100 points from the E-CAP screening table, would implement the project's fair share portion of pertinent GHG reduction measures and would be considered to generate a “less than significant” CEQA finding associated with GHG emissions. Projects would be required to implement measures from the E-CAP screening table proportional to the project's fair share of projected community-wide GHG emissions. The menu of options in the screening table is tied to the R2 Measures in the E-CAP such that 100 points would meet the emission reductions

CHAPTER 7 IMPLEMENTATION

associated with the R2 Measures. This menu allows for maximum flexibility for projects to meet their reduction allocation balancing the need to reduce emissions while maintaining a business friendly environment that keeps the City of Escondido competitive for development.

The methodology discussed above will be described in more detail in the City's CEQA GHG Emission Screening Table document and will be consistent with the analysis and quantification methodology used in this E-CAP.

The Screening Table would also serve to document the implementation of GHG emission reduction measures. The use of the Screening Table as a reduction measure monitoring tool is described in more detail in Section 7.6 below.

7.6 STEP 6—Monitoring and Inventorying

Escondido would use a system for monitoring the implementation of this E-CAP and adjusting the plan as opportunities arise. As the plan is implemented and as technology changes, the E-CAP would be revised to take advantage of new and emerging technology. If promising new strategies emerge, the City would evaluate how to incorporate these strategies into the E-CAP. Further, state and federal action would also result in changes that would influence the level of Escondido GHG emissions.

Screening tables completed during project review, as described in Section 7.5 above, would serve as documentation of the implementation of reduction measures. The City would retain the completed screening tables for each project in order to maintain a record of the types and levels of implementation of each of the R2 measures. The point values in the completed screening tables also document the estimated levels of emission reductions anticipated during implementation. By maintaining these records, the City can monitor the E-CAP reduction measure implementation and compare the anticipated emission reductions with the goals for the E-CAP over time.

The GHG inventory would be periodically updated in coordination with the three phases noted above: 2014 (to update with the progress of cost-effective measures and voluntary efforts); 2017 (to review first tier and second tier measure progress, allow for course corrections to keep progress on target for 2020, and to develop post-2020 forecasts for use in planning for after 2020); and 2020 (to establish baseline for post-2020 GHG reduction planning). The City would also implement a monitoring and reporting program to evaluate the effectiveness of reduction measures with regards to progress towards meeting the goals of the E-CAP.

To provide periodic updates to the Escondido inventory of GHG emissions, the City would use a Microsoft Excel format emissions inventory worksheet. This worksheet would include all the emission factors and emission sources specific to Escondido. The worksheet would be designed such that City staff can input VMT, water use, and energy consumption data and the worksheet would quantify emissions for the community. The E-CAP Implementation Coordinator would be responsible for maintaining records of reduction measure implementation and insuring that the periodic updates to the emissions inventory are completed using the Microsoft Excel-based emission inventory worksheet.

7.7 STEP 7—Beyond 2020

As described above under the discussion of Reduction Goals, 2020 is only a milestone in GHG reduction planning. Executive Order S-03-05 calls for a reduction of GHG emissions to a level 80 percent below 1990 levels by 2050, and this level is consistent with the estimated reductions needed to stabilize atmospheric levels of carbon dioxide at 450 parts per million. Thus, there will be a need to start planning ahead for the post-2020 period. Escondido would commence planning for the post-2020 period in 2017, at the approximate midway point between plan implementation and the reduction target, and after development of key ordinances and implementation of cost-effective measures. By that time, the City would have implemented the first two phases of this E-CAP and would have a better understanding of the effectiveness and efficiency of different reduction strategies and approaches. Further, the State's regulations under AB 32 would have been fully in force since 2012; federal programs and policies for the near term are likely to be well underway; market mechanisms that influence energy and fuel prices would likely be in effect; and technological advances are anticipated in the fields of energy efficiency, alternative energy generation, vehicles, fuels, methane capture, and other areas. The City would then be able to take the local, regional, state, and federal context into account. Further, beginning the post-2020 plan preparation in 2017 would allow enough time so that the plan could be ready for full implementation, including potential new policies, revisions to the General Plan (as necessary), programs, ordinances, and financing by 2020. The new plan would include a specific target for GHG reductions for 2035 and 2050. The targets would be consistent with broader state and federal reduction targets and with the scientific understanding of the needed reductions by 2050. Escondido would anticipate adopting the post-2020 plan prior to January 1, 2020.

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Chapter 8 **References**

CHAPTER 8 REFERENCES

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Appendix **Emissions Data**

Municipal GHG Inventory

Municipality:	City of Escondido
Inventory Year:	2010

Departmental Breakdown of Emissions

Government Department	Electricity		Natural Gas		Vehicle Fleet		Employee Commute		TOTAL	
	MT CO2e	\$	MT CO2e	\$	MT CO2e	\$	MT CO2e	\$	MT CO2e	\$
CA Center for the Arts	700.58	\$ 459,654.35	827.19	\$ 113,387.08	-	\$ -	-	\$ -	1,527.77	\$ 573,041.43
Police	178.06	\$ 98,148.82	43.14	\$ 7,245.54	-	\$ -	764.66	\$ 210,559.05	985.86	\$ 315,953.41
Public Works	93.39	\$ 64,742.52	10.54	\$ 2,116.56	-	\$ -	328.47	\$ 167,502.78	432.41	\$ 234,361.86
Community Center	72.68	\$ 56,660.33	-	\$ -	-	\$ -	-	\$ -	72.68	\$ 56,660.33
City Hall	289.72	\$ 177,970.66	19.67	\$ 3,604.75	-	\$ -	1,072.17	\$ 578,481.81	1,381.56	\$ 760,057.22
Pools	27.19	\$ 15,433.89	147.13	\$ 21,789.97	-	\$ -	323.83	\$ 167,502.78	498.14	\$ 204,726.64
Fire	713.93	\$ 429,487.49	387.81	\$ 56,560.66	-	\$ -	323.56	\$ 129,029.92	1,425.30	\$ 615,078.07
Communications	20.74	\$ 14,603.44	-	\$ -	-	\$ -	-	\$ -	20.74	\$ 14,603.44
Library	159.98	\$ 105,766.90	48.57	\$ 8,743.19	-	\$ -	89.29	\$ 46,667.44	297.83	\$ 161,177.53
Parks and Rec	43.07	\$ 24,821.74	139.40	\$ 21,197.44	-	\$ -	25.26	\$ 22,917.05	207.72	\$ 68,936.23
Water	1,268.42	\$ 881,682.87	1.62	\$ 390.67	-	\$ -	-	\$ -	1,406.92	\$ 951,241.35
Wastewater	3,115.71	\$ 1,788,880.39	843.27	\$ 116,560.42	-	\$ -	136.88	\$ 69,167.81	4,036.43	\$ 1,942,802.54
Public Lighting	1,543.71	\$ 884,257.74	-	\$ -	-	\$ -	77.45	\$ 37,361.73	1,543.71	\$ 884,257.74
Other Sources	95.38	\$ 88,388.64	33.27	\$ 6,244.66	-	\$ -	-	\$ -	128.65	\$ 94,633.30
Department 15	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Department 16	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Department 17	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
TOTAL	8,323	\$ 5,090,499.78	2,502	\$ 357,840.94	2,739	\$ 960,189.30	3,142	\$ 1,429,190.36	16,705	\$ 6,877,531.08

Waste and Wastewater

1,438 \$ -

18,143 \$ 6,877,531.08

Other Sources

Solid Waste and Wastewater	N2O (metric tons)	CH4 (metric tons)	CO2e (metric tons)
Generated	-	56.16285714	1179.42
Owned Landfills	-	-	-
Wastewater	-	12.31	258.59
TOTAL			1,438.01

Electricity

Instructions: Insert electricity use data for all facilities, streetlights, buildings, and other electric accounts owned/operated by the local gover for each department. Also enter the emissions factors for CO2, CH4, and N2O obtained from EPA eGrid or directly from the utility provider. Entering the rate code and associated cost per kWh of gas will allow the calculation of the total cost for each department's electricity use.

Utility Provider: SDG&E

Emissions Coefficients	lbs/MWh	metric tons/kWh	CH4	N2O	GWP
CO2	546.5	0.000247888			21
CH4	0.029	1.31542E-08			310
N2O	0.011	4.98952E-09			

Department	Annual kWh	\$	CO2	CH4	Metric Tons			CO2e
					N2O	CH4	N2O	
CA Center for the Arts	2805554	\$ 459,654.35	695.46	0.04	0.01	0.01	700.58	
Police	713073	\$ 98,148.82	176.76	0.01	0.00	0.00	178.06	
Public Works	374006	\$ 64,742.52	92.71	0.00	0.00	0.00	93.39	
Community Center	291055	\$ 56,660.33	72.15	0.00	0.00	0.00	72.68	
City Hall	1160216	\$ 177,970.66	287.60	0.02	0.01	0.01	289.72	
Pools	108876	\$ 15,433.89	26.99	0.00	0.00	0.00	27.19	
Fire	2859017	\$ 429,487.49	708.72	0.04	0.01	0.01	713.93	
Communications	83075	\$ 14,603.44	20.59	0.00	0.00	0.00	20.74	
Library	640646	\$ 105,766.90	158.81	0.01	0.00	0.00	159.98	
Parks and Rec	172473	\$ 24,821.74	42.75	0.00	0.00	0.00	43.07	
Water	5079528	\$ 881,682.87	1,259.16	0.07	0.03	0.03	1,268.42	
Wastewater	12477264	\$ 1,788,880.39	3,092.97	0.16	0.06	0.06	3,115.71	
Public Lighting	6181982	\$ 884,257.74	1,532.44	0.08	0.03	0.03	1,543.71	
Other Sources	381944	\$ 88,388.64	94.68	0.01	0.00	0.00	95.38	
Department 15		\$ -	-	-	-	-	-	
Department 16		\$ -	-	-	-	-	-	
Department 17		\$ -	-	-	-	-	-	
TOTAL	33328709	\$ 5,090,499.78	8261.797019	0.438411919	0.166294	0.166294	8322.554864	

Natural Gas

Instructions: Insert natural gas use data for all facilities, buildings, and other accounts owned/operated by the local government for each department. Entering the rate code and associated cost per therm of gas will allow the calculation of the total cost for each department's natural gas use.

Utility Provider:

SDG&E

Emissions Coefficients

CO2	52.91	kg/MMBTU
CH4	5	g/MMBTU
N2O	0.1	g/MMBTU

0.005291	metric tons/therm
0.000005	metric tons/therm
0.0000001	metric tons/therm

21	CH4
310	N2O

Department	Annual therms	\$	Metric Tons			CO2e	
			CO2	CH4	N2O		
CA Center for the Arts	152422	\$	113,387.08	806.46	0.76	0.02	827.19
Police	7950	\$	7,245.54	42.06	0.04	0.00	43.14
Public Works	1942	\$	2,116.56	10.28	0.01	0.00	10.54
Community Center	0	\$	-	-	-	-	-
City Hall	3625	\$	3,604.75	19.18	0.02	0.00	19.67
Pools	27110	\$	21,789.97	143.44	0.14	0.00	147.13
Fire	71460	\$	56,560.66	378.09	0.36	0.01	387.81
Communications	0	\$	-	-	-	-	-
Library	8950	\$	8,743.19	47.35	0.04	0.00	48.57
Parks and Rec	25686	\$	21,197.44	135.90	0.13	0.00	139.40
Water	299	\$	390.67	1.58	0.00	0.00	1.62
Wastewater	155384	\$	116,560.42	822.14	0.78	0.02	843.27
Public Lighting		\$	-	-	-	-	-
Other Sources	6131	\$	6,244.66	32.44	0.03	0.00	33.27
Department 15		\$	-	-	-	-	-
Department 16		\$	-	-	-	-	-
Department 17		\$	-	-	-	-	-
TOTAL	460959	\$	357,840.94	2438.93	2.30	0.05	2501.62

Vehicle Fleet

Instructions: Total fuel use includes off-road vehicles. Cost is based on average price per gallon of gasoline and diesel fuel in California in 2010 and total gallons of fuel used.

Emissions Coefficients

Gasoline	8.81	kg CO2/gallon	0.00881	metric tons CO2/gallon
Diesel	10.15	kg CO2/gallon	0.01015	metric tons CO2/gallon

Average \$/gallon Gasoline:	\$	3.14
Average \$/gallon Diesel:	\$	3.16

	CO2 (metric tons)		Total Cost
Total Gasoline (gal)	270279	2381.15799	\$ 848,676.06
Total Diesel (gal)	35289	358.18335	\$ 111,513.24
	2739.3413	\$	960,189.30

Employee Commute

The values below are based on the Employee Commute Survey. The survey results were extrapolated to estimate emissions from the employee commutes of all City employees.

Emissions Coefficients

Gasoline	8.81	kg CO2/gallon
Diesel	10.15	kg CO2/gallon

	0.00881	metric tons CO2/gallon
	0.01015	metric tons CO2/gallon

GWP

CH4	21
N2O	310

Department	Survey Responses					All Employees	
	Metric Tons		N2O	CO2e	\$ Cost	MT CO2e	Extrapolated Cost (\$)
	CO2	CH4					
CA Center for the Arts							
Police	283.54	0.01	0.01	286.28	78,832.00	764.6567375	\$ 210,559.05
Public Works	121.24	0.01	0.01	122.98	62,712.00	328.4749569	\$ 167,502.78
Community Center	-	-	-	-	-	-	\$ 0
City Hall	401.41	0.02	0.02	401.41	216,580.00	1072.166001	\$ 578,481.81
Pools	121.24	0.01	0.01	121.24	62,712.00	323.8264202	\$ 167,502.78
Fire	121.14	0.01	0.01	121.14	48,308.00	323.5590211	\$ 129,029.92
Communications	-	-	-	-	-	-	\$ 0
Library	33.43	0.00	0.00	33.43	17,472.00	89.28600322	\$ 46,667.44
Parks and Rec	9.46	0.00	0.00	9.46	8,580.00	25.25555563	\$ 22,917.05
Water	51.25	0.00	0.00	51.25	25,896.00	136.8833575	\$ 69,167.81
Wastewater	29.00	0.00	0.00	29.00	13,988.00	77.44957832	\$ 37,361.73
Public Lighting							\$ 0
Other Sources							\$ 0
Department 15							\$ 0
Department 16							\$ 0
Department 17							\$ 0
TOTAL	1,171.70	0.05	0.05	1,176.18	535,080.00	3,141.56	1,429,190.36

Total Computer Respondents 386
 Total Escondido Employees 1031
 % Response rate 37.4%

Solid Waste

Instructions: Emissions from solid waste come from two sources: the waste generated by the government and the emissions from landfills owned/operated by the government. For generated solid waste, enter the landfill name where the waste is deposited, the total annual tons of waste, and select the landfill's methane recovery system. For the landfills, enter the name and the annual LFG gas collected, then override the default values related to the LFG system if specific values are known.

Generated Solid Waste

Landfill Name	Tons Waste/Year	Methane Recovery System	CH4 Emissions Coefficient (metric tons CH4/ton waste)	Total CH4 Emissions (metric tons)	Total CO2e (metric tons)	EPA Methane Recovery Systems	metric tons CH4/ton waste
Sycamore Landfill	3931.4	Gas-to-Energy	0.3	56.16285714	1179.42	No Recovery	3.1
				0	0	Flaring	0.64
				0	0	Gas-to-Energy	0.3
TOTAL	3931.4			56.16285714	1179.42		

Wastewater Emissions

Digester Gas	295,000
Fraction of methane in Gas	0.61

CH4/N2O (metric tons) CO2e (metric tons)
 Stationary Methane Emissions 12.31 258.5864686

Stationary Methane Emissions

662	g/m3	Density CH4 at standard conditions
0.99		CH4 Destruction Efficiency
0.0283	m3/ft3	conversion
365.25	days/year	conversion
0.000001	metric ton/g	conversion

Annual Usage and Generation

Inventory Year: 2010

	Growth Rates	
	2010 to 2020	2010 to 2035
Single Family	2.24%	5.68%
Multi Family	16.49%	46.46%
Average Residential	7.50%	19.80%
Commercial	20.10%	60.98%
Industrial	9.30%	24.84%
Average Non-Residential	16.30%	45.79%

Transportation

On-road Transportation	2005	2010	2020	2035
Annual Vehicle Miles Traveled	745,048,457	735,247,975	903,409,558	1,219,016,356
Annual Trips	234,731,758	231,644,061	338,626,654	456,926,126
Average \$/gallon Gasoline	2.54	3.16		
Average \$/gallon Diesel	2.61	3.16		

Electricity and Natural Gas

Electricity

SDG&E

Rate Code	Bundled Service		Direct Access
	Annual kWh	\$/kWh	Annual kWh
Residential	277,165,624	\$0.17400	331,233
Commercial	265,359,290	\$0.17400	42,478,455
Industrial	35,900,196	\$0.17400	25,683,447
Street Lighting	5,819,539	\$0.17400	
TOTAL	584,244,649	\$ 101,658,568.93	68,493,135

Electricity Emission Factors		
SDG&E 2005	WECC 2005	Units
546.5	724.1	lbs CO2/MWh
0.011	0.008	lbs CH4/MWh
0.029	0.03	lbs N2O/MWh

Note: SDG&E emission factors used for bundled service and WECC emission factors used for direct access.

Direct Electricity Emissions

	Generation (MWh)	CO2 (tons)	CH4(tons)	N2O (tons)	(eGRID2010 data, year 2007)
Escondido Power Plant	2,897	2473.90	96.98	9.70	
Palomar Energy	3,352,807	1403805.32	55038.75	5503.87	
Total	3,355,704	1,406,279	55,136	5,514	

Natural Gas

	Bundled Service		Direct Access
	therms	\$/therms	therms
Residential	14121490	\$0.94	32053
Commercial	5031767	\$0.78	962676
Industrial		\$0.66	20685344
TOTAL	19153257	\$17,216,184.50	21680073

Area Source Emissions: Landscaping and Woodburning Emissions

Landscaping Emissions

Land use:	2005	2010	
Single Family Residential Units:	29,637	31,107	units
Multi-family Residential Units:	15,853	16,477	units
Commercial Building Space:	17,092	17,092	1000 square feet
Industrial Building Space:	12,389	12,389	1000 square feet

Woodburning Emissions

Homes with wood stoves:	10%	% of residential homes
Amount of wood burned:	0.80	cords/unit
Homes with fireplaces:	10%	% of residential homes
Price of wood:	\$3.50	\$/cord of wood

Metered Water Deliveries

Wastewater Treatment Plant

	2005	2010		
	AF	kgal	Cost of Service	
SFR	12,500	3,391,821	\$ 14,140,952	Digester Gas 295,000
Residential/Agricultural		23,313	\$ 97,195	Fraction of methane in Gas 0.61
MFR	5,200	1,470,637	\$ 6,131,281	
Commercial/Industrial/School	3,355	1,033,789	\$ 4,192,888	
Irrigation/Institutional	1,260	650,183	\$ 2,859,805	
Landscape District	2,090	23,891	\$ 105,084	
Wild Animal Park		182,036	\$ 738,310	
Special Unfiltered		188,432	\$ 470,614	
Agricultural Use	6,190	218,253	\$ 874,057	
SAWR Use		1,042,201	\$ 4,429,012	
TOTAL	30,595	8,224,556	\$ 34,039,198	

Source	AF
Local Water	3500
Purchased Water	23806

Solid Waste

Waste Disposal Sites	Name	Mileage (round trip)*	Annual Waste (tons)	Methane Recovery Type	Entity Owned/ Operated?
2010	Sycamore Landfill	26.6	147166	Gas-to-Energy	No
2005	Sycamore Landfill	26.6	161203.86	Gas-to-Energy	No

*Distance from center of area to facilities outside the city boundaries. For facilities within entity boundaries, use the average trip mileage for all trips.

46% Residential
 49% Commercial
 5.2% Industrial

Construction

	CO ₂ (tons from URBEMIS)
Demolition	260.48
Fine Grading	759.56
Trenching	22.71
Building	956.20
Paving	25.00
Architectural Coating	51.51
TOTAL	2075.46

Transportation Emission Reduction Measures

Reductions					
VMT			Emissions		
Passenger Cars		Heavy Duty	Passenger Cars		Heavy Duty
%	miles	%	MT	%	MT
	686,721,609	49,261,614	347,127,6116		72,613.81
Existing 2020					

Reduction Strategy

R1-T1	Pavley I	686,721,609	49,261,614	347,128	72,614
R1-T2	Pavley II	686,721,609	49,261,614	288,723	72,614
R1-T3	Low Carbon Fuel Standard	686,721,609	49,261,614	277,944	57,384
R1-T4	Tire Pressure	686,721,609	49,261,614	277,110	57,384
R1-T5	Low Rolling Resistance Tires	686,721,609	49,261,614	276,556	57,384
R1-T6	Low Friction Oils	686,721,609	49,261,614	271,854	57,384
R1-T7	Goods Movement Efficiency.	686,721,609	49,261,614	267,504	56,465
R1-T8	Aerodynamic Efficiency	686,721,609	49,261,614	267,504	55,393
R1-T9	Med/Heavy Hybridization	686,721,609	49,261,614	267,504	54,839
R2-T1	Land Use & VMT Reduction	686,721,609	49,261,614	267,504	54,839
R2-T2	Bicycle Master Plan	686,721,609		1%	54,839
R2-T3	Transit Improvements (BRT)	686,721,609		0.47%	54,839
R2-T3	Transit Improvements (Sprinter)	686,721,609		0.96%	54,839
R2-T4	TDM	686,721,609		2.00%	54,839
				4%	0.0437

Strategies

Transportation Emission Reduction Measures

Existing 2020	Gasoline 37431467.77	Diesel 6796366.85	\$ 139,759,957	Total Emissions Reduced (MT CO2e)	\$/MT CO2e
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Reduction Strategy	Cost of strategy	Gasoline gallons saved	Diesel gallons saved	\$ Saved	Total Emissions Reduced (MT CO2e)
R1-T1 Pavley I					-
R1-T2 Pavley II		6297921.96	0.00	\$ 19,901,433	58,405
R1-T3 Low Carbon Fuel Standard		1162330.00	1425491.90	\$ 8,177,517	26,009
R1-T4 Tire Pressure		89913.65	0.00	\$ 284,127	834
R1-T5 Low Rolling Resistance Tires		59762.60	0.00	\$ 188,850	554
R1-T6 Low Friction Oils		506966.17	0.00	\$ 1,602,013	4,701
R1-T7 Goods Movement Efficiency.		469033.17	85934.00	\$ 1,753,696	5,268
R1-T8 Aerodynamic Efficiency		0.00	100413.88	\$ 317,308	1,073
R1-T9 Med/Heavy Hybridization		0.00	51845.27	\$ 163,831	554
R2-T1 Land Use & VMT Reduction	General Plan	0.00	0.00	\$ -	-
R2-T2 Bicycle Master Plan	600000	288455.40	0.00	\$ 911,519	2,675
R2-T3 Transit Improvements (BRT)	N/A	133932.73	0.00	\$ 423,227	1,242
R2-T3 Transit Improvements (Sprinter)	N/A	274226.57	0.00	\$ 866,556	2,543
R2-T4 TDM	N/A	562978.51	0.00	\$ 1,779,012	5,221
				\$ 36,369,090	11,681

Strategies

Land	39,192.00	38,666.42
Wood	15,784.89	15,784.89
		525.58
		1.34%

Electric outlets for landscaping equipment

39% Source:
new landscaping
1,351.10

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Quantifying Greenhouse Gas Mitigation Measures: A Resource for
Local Governments to Assess Emission Reductions from
Greenhouse Gas Mitigation Measures. 2010.

R2-S1

County Diversion Program

This measure would implement a County wide waste diversion plan to further the goal of diverting 75% of all waste from landfills by 2020. The following is a potential list of waste reduction measures that will further strengthen existing waste reduction/diversion programs.

- * Provide outreach and education programs for residential, commercial, and industrial land uses in order to further promote existing County diversion programs;
- * Increase disposal fees and/or reduce residential pick-up frequency;
- * Encourage businesses to adopt a voluntary procurement standard and prioritize those products that have less packaging, are reusable, recyclable, or compostable;
- * Support State level policies that provide incentives for efficient and reduced packaging waste for commercial products;
- * Expand list of recyclable materials;
- * Work with Recology to develop and provide waste audits;
- * Make recycling and composting opportunities mandatory at all public events;
- * Establish an appliance end-of-life requirement;
- * For new developments, require the use of recycled-content materials, or recycled materials;
- * Require a minimum of 15% of materials used in construction be sourced locally, as feasible; and
- * Encourage the use of recycled building materials and cement substitutes for new developments.

Assumptions:

- * Applies to existing and future development not associated with Sutter Pointe.
- * Assumes an existing diversion rate of 58%
- * Assumes 2020 goal of 75% diversion rate.
- * Does not apply to construction activities

Reductions:

% reduction applied	=	15.00%
% not from construction activities	=	87.60%
% reduction applied	=	13.14%

Target Year	2020		Hauling					Landfill Offgasing	
	distance (round trip) (miles)	Waste tons/year	tons / truck	# trucks	Metric Tons/year CO ₂	Metric Tons/year CH ₄	Metric Tons/year N ₂ O	Methane Recovery type	off-gasing Metric Tons CH ₄
	0	136870.954	12	11406	583.81	0	0.001456	Gas-to-Energy	41,061
Total					583.81	0	0.001456		41061.28619

BAU: 47,273
 R2-S1 Reductor 6,212

construction to minimize emissions of ozone precursors (NOx and VOCs):

- i. Turn off all diesel-powered vehicles and gasoline-powered equipment when not in use for more than five minutes.
- ii. Use electric or natural gas-powered construction equipment in lieu of gasoline or diesel-powered engines, where feasible.
- iii. Require 10 percent of the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters, and/or CARB-certified Tier III equipment or better.
- iv. Support and encourage ridesharing and transit incentives for the construction crew.

	Percent Reduced	10%
BAU Emissions	2,287.78	
Reduced Emissions	2059.001602	
	228.78	

Greenhouse Gas Emission Inventory Comparison Summary

	2005	2010	2020	Reduced 2020
Transportation				
Mobile Source Emissions	374,454	367,332	418,477	288,916
HFC Emissions	1,315	1,290	1,265	21,746
Sub Total	375,769	368,622	419,741	310,662
Energy				
Electrical Consumption	174,732	170,061	193,232	112,294
Electricity Generation	0	8,286	8,286	8,286
Natural Gas	244,445	217,217	239,507	237,334
Sub Total	419,177	395,565	441,025	357,914
Area Sources				
Landscaping	38,399	37,841	39,192	38,667
Woodburning	14,887	14,718	15,785	15,785
Sub Total	53,287	52,559	54,977	54,451
Water and Wastewater				
Water consumption	28,125	25,102	27,000	21,705
Wastewater Generation	259	259	278	274
Sub Total	28,384	25,360	27,278	21,979
Solid Waste				
Landfill Offgasing	48,361	41,724	47,273	41,061
Sub Total	48,361	41,724	47,273	41,061
Construction				
Construction Emissions	2,288	2,288	2,288	2,059
Sub Total	2,288	2,288	2,288	2,059
TOTAL	927,266	886,118	992,583	788,127

Source	2005	2010	2020 BAU	2020 Reduced
Transportation	375,769	368,622	419,741	310,662
Energy	419,177	395,565	441,025	357,914
Area Sources	53,287	52,559	54,977	54,451
Water and Wastewater	28,384	25,360	27,278	21,979
Solid Waste	48,361	41,724	47,273	41,061
Construction	2,288	2,288	2,288	2,059
Total	927,266	886,118	992,583	788,127

	2005	2010	2035	Reduced 2035
Transportation				
Mobile Source Emissions	374,454	367,332	554,869	271,436
HFC Emissions	1,315	1,290	1,949	20,431
Sub Total	375,769	368,622	556,818	271,436
Energy				
Electrical Consumption	174,732	170,061	236,230	88,181
Electricity Generation	0	8,286	8,286	8,286
Natural Gas	244,445	217,217	278,911	260,828
Sub Total	419,177	395,565	523,427	357,294
Area Sources				
Landscaping	38,399	37,841	41,487	40,068
Woodburning	14,887	14,718	17,665	17,665
Sub Total	53,287	52,559	59,151	57,733
Water and Wastewater				
Water consumption	28,125	25,102	30,664	23,475
Wastewater Generation	259	259	316	304
Sub Total	28,384	25,360	30,980	23,779
Solid Waste				
Landfill Offgasing	48,361	41,724	57,518	41,061
Sub Total	48,361	41,724	57,518	41,061
Construction				
Construction Emissions	2,288	2,288	2,288	2,059
	2,288	2,288	2,288	2,059
TOTAL	927,266	886,118	1,230,182	753,363

Source	2005	2010	2035 BAU	2035 Reduced
Transportation	375,769	368,622	556,818	271,436
Energy	419,177	395,565	523,427	357,294
Area Sources	53,287	52,559	59,151	57,733
Water and Wastewater	28,384	25,360	30,980	23,779
Solid Waste	48,361	41,724	57,518	41,061
Construction	2,288	2,288	2,288	2,059
Total	927,266	886,118	1,230,182	753,363

Modeling Coefficients and Data Assumptions

Standard

0.85 backcasting multiplier
2204.6226 lbs / metric ton
1000 kg/metric ton
1000000 g/metric ton
0.907 metric tons/short ton
2000 lbs/ton
2204.6226 lbs/metric ton
0.0283 m3/ft3
365.25 days/year
0.000001 metric ton/g
748 gal/ccf
325,851 gal/acre-foot

GWP

21 CH4
310 N2O

Transportation

On-Road Vehicles

8.81 kg/gallon CO₂ Gasoline
10.15 kg/gallon CO₂ Diesel

Source: California Climate Action Registry General Reporting Protocol, Version 3.1 January 2009 (Table C.3)

Emfac Settings:

Version : Emfac2007 V2.3 Nov 1 2006
Scen Years: 2005, 2010, 2020, 2035
Season : Annual
Area : San Diego County
Temperature: 65; Humidity 60%; Sped 30 MPH

Electricity

Emission Factors

SDG&E (2005)	WECC (2005)
546.5	724.1 lbs CO ₂ /MWh
0.011	0.008 lbs CH ₄ /MWh
0.029	0.03 lbs N ₂ O/MWh

Source: EPA Emissions and Generation Resource Integrated Database (eGRID2007), Version 1.1, December 2007.

Natural Gas

53.06 kg CO₂/MMBTU
5 g CH₄/MMBTU
0.1 g N₂O/MMBTU
1000 scf = 1Mcf
0.9649 Mcf/MMBTU
10 therms/mmbtu

Source: California Climate Action Registry General Reporting Protocol, Version 3.1 January 2009 (Table C.7)

Multifamily

24.55 Acres/property
 0.25 tons/property/day
 0.010183299 tons/acre/day
 24.44 units/acre
0.000416665 tons/unit/day

Single Family

0.0193 tons/acre/day
 3 units/acre
0.00643333 tons/unit/day

Non Residential

2*sqt=acreage
 43560 sqft=1 acre
 21780 sqft/acre
 0.010183299 tons/acre/day
4.67553E-07 tons/sqft/day

Source: URBEMIS2007 Emissions Estimation for Land Use Development Projects, Version 9.2

Wood Burning Coefficients and Conversions:

3400 lbs CO₂/ton wood
 2458 lbs in a cord of wood
 316 g CH₄/MMBTU
 4.2 g N₂O/MMBTU
 15.38 MMBTU/ton wood

Source: EPA AP-42 Emission Coefficients, Fifth Edition, Volume I October 1996 (Section 1.10)

Water and Waste Water

kWh/MG	Indoor Uses		Outdoor Uses	
	NorCal	SoCal	NorCal	SoCal
Water Supply and Conveyance	2117	9727	2117	9727
Water Treatment	111	111	111	111
Water Distribution	1272	1272	1272	1272
Wastewater Treatment	1911	1911	0	0
Regional Total	5,411	13,021	3,500	11,110

Source: California Energy Commissions Refining Estimates of Water-Related Energy Use in California, December 2006 (Table ES-1)

Wastewater Coefficients**Stationary Methane Emissions**

662 g/m ³	Density CH ₄ at standard conditions
0.99	CH ₄ Destruction Efficiency

Source: Local Government Operations Protocol, Version 1.0, September 2008 (Chapter 10: Wastewater Treatment Facilities)

Process CH₄

0.000003785 l/MG	Conversion
0.6 kgCH ₄ /kgBOD remove	CH ₄ producing capacity (Bo)
0.8 (For anaerobic systems)	CH ₄ Correction Factor
365.25 days/year	Conversion
0.001 metric tons/kg	Conversion

Solid Waste

metric tons CH₄/ton waste

Landfill w/o recovery 3.1
 Landfill w/ Flaring 0.64
 Landfill w/ electric gen 0.3

Source: EPA Solid Waste Management and Greenhouse Gases; A life-cycle assessment of emissions and Sinks, 3rd edition, September 2006.

EXHIBIT E



California's 2017 Climate Change Scoping Plan

The strategy for achieving California's
2030 greenhouse gas target

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Decades of Leadership

From the first law to protect rivers from the impact of gold mining in 1884, to decades of work to fight smog, the Golden State has set the national – and international – standard for environmental protection. California pushes old boundaries, encounters new ones, and figures out ways to break through those as well. This is part of the reason why California has grown to become both the 6th largest economy in the world, and home to some of the world’s strongest environmental protections. And, we have seen our programs and policies adopted by others as they seek to protect public health and the environment.

California’s approach to climate change channels and continues this spirit of innovation, inclusion, and success. The 2030 target of 40 percent emissions reductions below 1990 levels guides this Scoping Plan, as the economy evolves to reduce greenhouse gas (GHG) emissions in every sector. It also demonstrates that we are doing our part in the global effort under the Paris Agreement to reduce GHGs and limit global temperature rise below 2 degrees Celsius in this century.

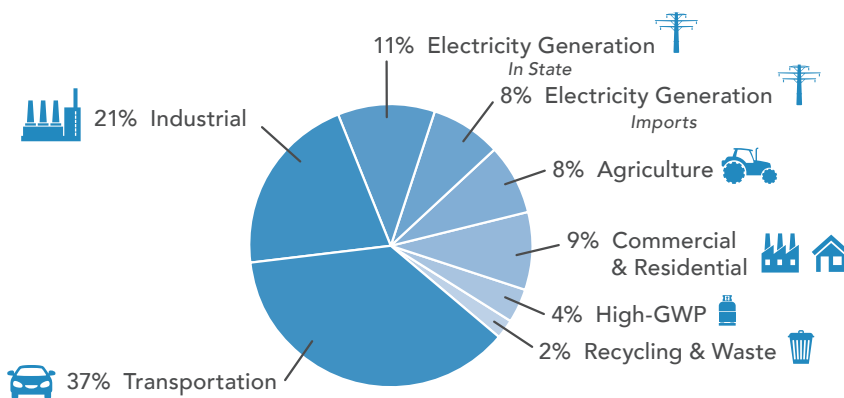
California’s 2017 Climate Change Scoping Plan: The Strategy for Achieving California’s 2030 Greenhouse Gas Target (Plan) builds on the state’s successes to date, proposing to strengthen major programs that have been a hallmark of success, while further integrating efforts to reduce both GHGs and air pollution. California’s climate efforts will:

- Lower GHG emissions on a trajectory to avoid the worst impacts of climate change;
- Support a clean energy economy which provides more opportunities for all Californians;
- Provide a more equitable future with good jobs and less pollution for all communities;
- Improve the health of all Californians by reducing air and water pollution and making it easier to bike and walk; and
- Make California an even better place to live, work, and play by improving our natural and working lands.



Governor Brown signs SB 32 recommitting California’s efforts to curb climate change.

CALIFORNIA CARBON EMISSIONS BY SCOPING PLAN SECTOR



2015 Total Emissions
440.4 MMTCO₂e

The Climate Imperative – We Must Act

The evidence that the climate is changing is undeniable. As evidence mounts, the scientific record only becomes more definitive – and makes clear the need to take additional action now.

In California, as in the rest of the world, climate change is contributing to an escalation of serious problems, including raging wildfires, coastal erosion, disruption of water supply,

threats to agriculture, spread of insect-borne diseases, and continuing health threats from air pollution.

The drought that plagued California for years devastated the state's agricultural and rural communities, leaving some of them with no drinking water at all. In 2015 alone, the drought cost agriculture in the Central Valley an estimated \$2.7 billion, and more than 20,000 jobs. Last winter, the drought was broken by record-breaking rains, which led to flooding that tore through freeways, threatened rural communities, and isolated coastal areas. This year, California experienced the deadliest

wildfires in its history. Climate change is making events like these more frequent, more catastrophic and more costly. Climate change impacts all Californians, and the impacts are often disproportionately borne by the state's most vulnerable and disadvantaged populations.



CALIFORNIA
is already experiencing
the impacts of
CLIMATE CHANGE

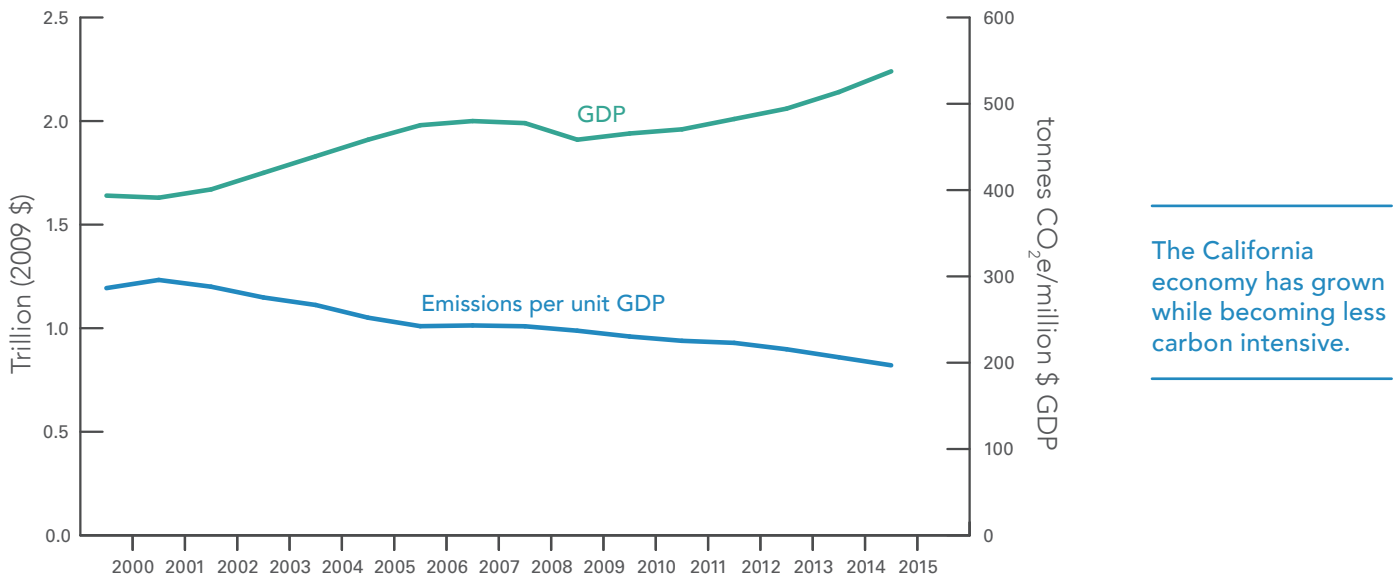
IN 2015 THE DROUGHT COST THE AGRICULTURE INDUSTRY IN THE CENTRAL VALLEY AN ESTIMATED \$2.7 BILLION & 20,000 JOBS



California is on Track – But There is More to Do

Although the California Global Warming Solutions Act of 2006 – also known as AB 32 – marked the beginning of an integrated climate change program, California has had programs to reduce GHG emissions for decades. The state’s energy efficiency requirements, Renewable Portfolio Standard, and clean car standards have reduced air pollution and saved consumers money, while also lowering GHG emissions.

ENVIRONMENTAL PROGRESS AND A RESILIENT ECONOMY

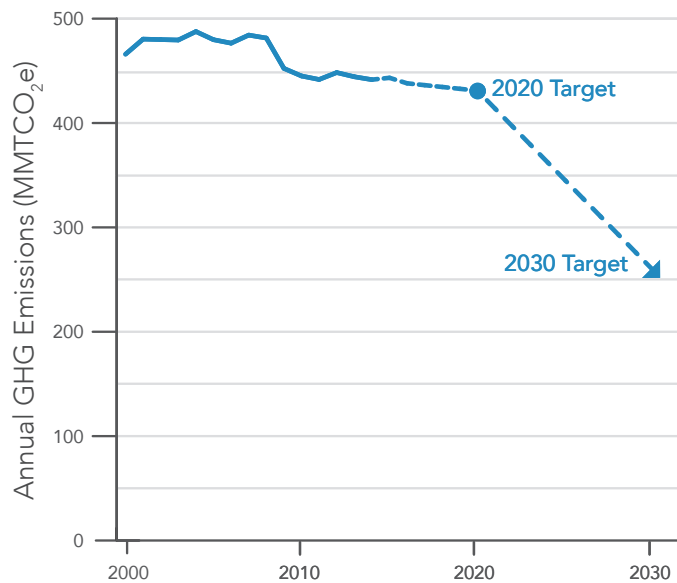


The California economy has grown while becoming less carbon intensive.

AB 32 set California’s first GHG target called on the state to reduce emissions to 1990 levels by 2020. California is on track to exceed its 2020 climate target, while the economy continues to grow. Since the launch of many of the state’s major climate programs, including Cap-and-Trade, economic growth in California has consistently outpaced economic growth in the rest of the country. The state’s average annual growth rate has been double the national average – and ranks second in the country since Cap-and-Trade took effect in 2012. In short, California has succeeded in reducing GHG emissions while also developing a cleaner, resilient economy that uses less energy and generates less pollution.

Importantly, the State’s 2020 and 2030 targets have not been set in isolation. They represent benchmarks, consistent with prevailing climate science, charting an appropriate trajectory forward that is in line with California’s role in stabilizing global warming below dangerous thresholds. As we consider efforts to reduce emissions to meet the State’s near-term requirements, we must do so with an eye toward reductions needed beyond 2030. The Paris Agreement – which calls for limiting global warming to well below 2 degrees Celsius and pursuing efforts to limit it to 1.5 degrees Celsius – frames our path forward.

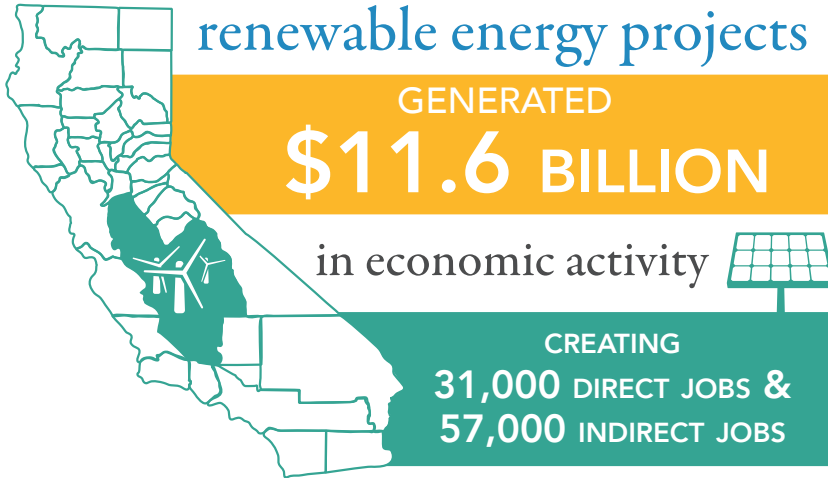
CALIFORNIA’S PATH FORWARD



California's Path to 2030

Executive Order B-30-15 and SB 32 extended the goals of AB 32 and set a 2030 goal of reducing emissions 40 percent from 2020 levels. This action keeps California on target to

FROM 2002-2015 SAN JOAQUIN VALLEY renewable energy projects



achieve the level of reductions scientists say is necessary to meet the Paris Agreement goals. This is an ambitious goal – calling on the State to double the rate of emissions reductions. Nevertheless, it is an achievable goal.

This Plan establishes a path that will get California to its 2030 target. Given our ambitious goals, this Plan is built on unprecedented outreach and coordination. Over 20 state agencies collaborated to produce the Plan, informed by 15 state agency-sponsored workshops and more than 500 public comments. The broad range of state agencies involved reflects the complex nature of addressing climate change, and the need to work across institutional










boundaries and traditional economic sectors to effectively reduce GHG emissions. As part of the Plan development, alternative strategies were considered and evaluated, ranging from carbon taxes to individual facility caps to relying solely on sector-specific regulations. In addition, efforts were made to ensure that the Plan would benefit all Californians. To this end, the Environmental Justice Advisory Committee (EJAC), a Legislatively created advisory body, convened almost 20 community meetings throughout California to discuss the climate strategy, and held 19 meetings of its own to provide recommendations on the Plan.

This Plan draws from the experiences in developing and implementing previous plans to present a path to reaching California's 2030 GHG reduction target. The Plan is a

package of economically viable and technologically feasible actions to not just keep California on track to achieve its 2030 target, but stay on track for a low- to zero-carbon economy by involving every part of the state. Every sector, every local government, every region, every resident is part of the solution. The Plan underscores that there is no single solution but rather a balanced mix of strategies to achieve the GHG target. This Plan highlights the fact that a balanced mix of strategies provides California with the greatest level of certainty in meeting the target at a low cost while also improving public health, investing

in disadvantaged and low-income communities, protecting consumers, and supporting economic growth, jobs and energy diversity. Successful implementation of this Plan relies, in part, on long-term funding plans to inform future appropriations necessary to achieve California's long-term targets.

CALIFORNIA'S CLIMATE POLICY PORTFOLIO

-  Double building efficiency
-  Cleaner freight and goods movement
-  50% renewable power
-  Slash potent "super-pollutants" from dairies, landfills and refrigerants
-  More clean, renewable fuels
-  Cap emissions from transportation, industry, natural gas, and electricity
-  Cleaner zero or near-zero emission cars, trucks, and buses
-  Invest in communities to reduce emissions
-  Walkable/Bikeable communities with transit

California's Climate Vision

Create Inclusive Policies and Broad Support for Clean Technologies

Remarkable progress over the past 10 years has put the global energy and transportation sector on a transformative path to cleaner energy. Far outpacing previous predictions, today solar and wind power are often less expensive than coal or natural gas, and they now comprise the majority of global investment in the power sector. Electric vehicle battery costs have tumbled even more quickly than solar costs, while performance has improved dramatically, and the auto industry is committed to an electric future.

California's policies have created markets for energy efficiency, energy storage, low carbon fuels, renewable power – including utility-scale and residential-scale solar – and zero-emission vehicles. Our companies are thriving, making those markets grow. California is home to nearly half of the zero-emission vehicles in the U.S., 40 percent of North American clean fuels investments, the world's best known electric car manufacturer, and the world's leading ride-sharing services. California is further advancing efficient land use policies that reduce auto dependency. Altogether, we're unleashing nonlinear transitions to clean energy and clean transportation technologies that will put California on the path to meeting our 2030 target and the goals of the Paris Agreement.

California policymaking has succeeded through thoughtful planning, bolstered by an open public process that solicits the best ideas from a wide array of sources, and by integrating effective regulation with targeted investments to provide broad market support for clean technologies. A key element of California's approach continues to be careful monitoring and reporting on the results of our programs and a willingness to make mid-course adjustments. As the State looks to 2030 and beyond, all sectors of the economy must benefit from these ideas to create a new and better future.

California is home to

NEARLY **50%**
OF THE ZEVs
IN THE U.S.

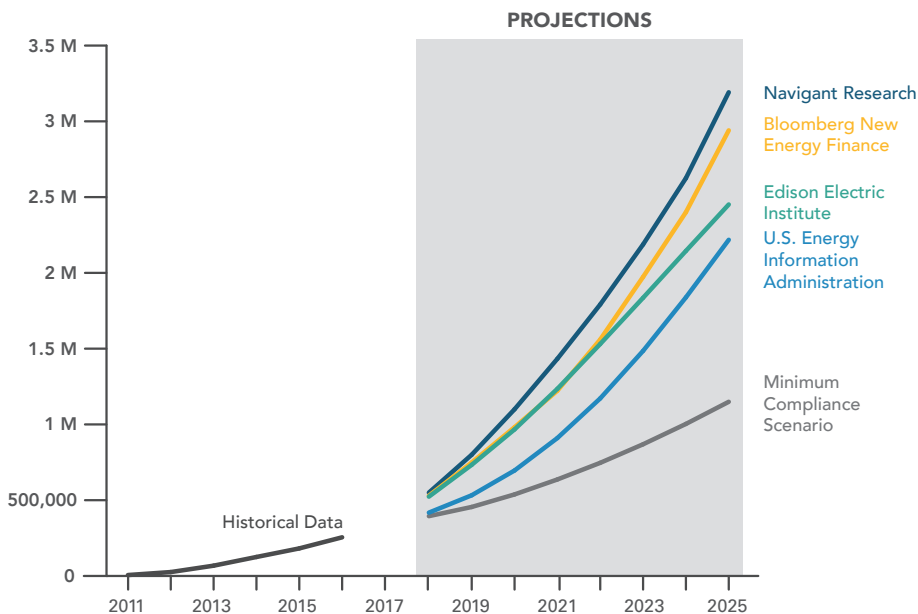


40%
OF NORTH AMERICAN
CLEAN FUEL
INVESTMENTS



90% OF TOTAL U.S. INVESTMENT IN
CLEAN TRANSPORTATION

CUMULATIVE CALIFORNIA ZEV SALES PROJECTIONS



Experience has shown clean technology and markets continue to outpace expectations.

LEGISLATIVE LEADERSHIP ON CLIMATE

The California Legislature has shaped the State's climate change program, setting out clear policy objectives over the next decade:

- 40% reduction in GHG emissions by 2030;
- 50% renewable electricity;
- Double energy efficiency savings;
- Support for clean cars;
- Integrate land use, transit, and affordable housing to curb auto trips;
- Prioritize direct reductions;
- Identify air pollution, health, and social benefits of climate policies;
- Slash "super pollutants";
- Protect and manage natural and working lands;
- Invest in disadvantaged communities; and
- Strong support for Cap-and-Trade.

The benefits of innovative technologies need to reach all residents and businesses. Air pollution reductions and the associated health benefits should be targeted to communities where they are needed most. All Californians need access to clean transportation options that enable healthy communities to develop and thrive, including walking, cycling, transit, rail, and clean vehicle options.

Although GHG reductions can help to reduce harmful air pollution, California must concurrently employ other strategies to accelerate reductions of pollutants from large industrial sources that adversely impact communities. Newly passed AB 617 strengthens existing criteria and toxic air pollutant programs and our partnerships with local air districts to further reduce harmful air pollutants and protect communities. More fundamentally, AB 617 establishes a comprehensive statewide program – the first of its kind – to address air pollution where it matters most: in neighborhoods with the most heavily polluted air.

CALIFORNIA'S GOALS



California's environmental justice and equity movement is establishing a blueprint for the nation and world. The State is pioneering targeted environmental and economic development programs to help those most in need. So far, half of all California Climate Investments, stemming from the State's Cap-and-Trade-Program, have been used to provide benefits in the 25 percent of California communities that are most disadvantaged by environmental and socio-economic burdens. By increasingly engaging with, and investing in, these communities – investing in technical assistance resources, holding listening sessions, improving our programs, and accelerating our efforts to bring the cleanest technologies to mass market – all California residents can have clean air to breathe, clean water to drink, and opportunities to participate in the cleaner economy.

ACHIEVING SUCCESS IN EQUITY AND ACCESS

- Continue to engage local organizations and invest in disadvantaged communities to ensure broad access to clean technologies;
- Ensure air pollution reductions happen where they are needed the most;
- Integrate across programs and agencies to ensure complementary policies provide maximum benefits to disadvantaged communities;
- Implement California Energy Commission and CARB recommendations to overcome barriers to clean energy and clean transportation options for low-income residents;
- Provide energy-efficient affordable housing near job centers and transit; and
- Implement AB 617 to dramatically improve air quality in local communities through targeted action plans.



Enhance Industrial Efficiency & Competitiveness

California leads the country in manufacturing and industrial efficiency. For every dollar spent on electricity, our manufacturers produce 55 percent more value than the national average. And the efficiency of California industry continues to grow at rates faster than the national average. High efficiency rates, coupled with the Cap-and-Trade Program's firm emission cap, allow economic activity to increase without corresponding increases in GHG emissions. In other words, the more California produces, the better it is for the planet. Maintaining and extending our successful programs – from the Cap-and-Trade Program and Low Carbon Fuel Standard to zero-emission, renewable energy and energy efficiency programs – will reduce GHGs, increase energy cost savings, offer businesses flexibility to reduce emissions at low cost and provide clear policy and market direction, and certainty, for business planning and investment. This will encourage continued research, evaluation, and deployment of innovative strategies and technology to further reduce emissions in the industrial sector through advances in energy efficiency and productivity, increased access to cleaner fuels, and carbon capture, utilization and storage.

ACTION ON HFCs

Hydrofluorocarbons (HFCs) represent one of the biggest opportunities to reduce GHGs in the State through 2030 due to their high climate impacts, and in many cases, offer energy efficiency and financial savings, as well. The world recently agreed to phase down their use, but California has committed to move more quickly, in line with the scope of the opportunity for cost-effective emissions reductions in the State.

ACHIEVING SUCCESS IN INDUSTRIAL EFFICIENCY AND COMPETITIVENESS

- Evaluate and implement policies and measures to continue reducing GHG, criteria, and toxic air contaminant emissions from sources such as refineries;
- Improve productivity and strengthen economic competitiveness by further improving energy efficiency and diversifying fuel supplies with low carbon alternatives;
- Prioritize procurement of goods that have lower carbon footprints
- Support and attract industry that produces goods needed to reduce GHGs; and
- Cut energy costs and GHG emissions by quickly transitioning to efficient HFC alternatives.

Prioritize Transportation Sustainability

California's transportation system underpins our economy. The extensive freight system moves trillions of dollars of goods each year and supports nearly one-third of the state economy and more than 5 million jobs. The way we plan our communities impacts everything from household budgets to infrastructure needs, productivity lost to congestion, protection of natural and working landscapes, and our overall health and well-being. And transportation is the largest source of GHG, criteria, and toxic diesel particulate matter emissions in the state.

RENEWABLE DIESEL USE

has increased 7000% since 2011

California's ability to remain an economic powerhouse and environmental leader requires additional efforts to improve transportation sustainability with a comprehensive approach that includes regulation, incentives, and investment.

This approach addresses a full range of

transportation system improvements relating to efficient land use, affordable housing, infrastructure for cyclists and pedestrians, public transit, new vehicle technologies, fuels and freight. One example is the deployment of the nation's first high-speed rail system, which will include seamless connections to local transit.

The approach is working: California is home to nearly half of the country's zero-emission vehicles. Innovative alternative fuel producers and oil companies are bringing more low carbon fuels to market than required by the Low Carbon Fuel Standard. And, the State has committed to investing billions in zero-emission vehicles and infrastructure, land use planning, and active transportation options such as walking and biking. In fact, renewable fuels in the heavy-duty vehicle sector are displacing diesel fossil fuel as quickly as renewable power is replacing fossil fuels on the electricity grid. California's climate policies will also reduce fossil fuel use and decouple the state from volatile global oil prices. CARB's analyses show fossil fuel demand will decrease by more than 45 percent by 2030, which means Californians will be using less gasoline and diesel resulting in healthier air and cost-savings on transportation fuels. These benefits will be further amplified as we move away from light-duty combustion vehicles.

By re-doubling our efforts, California can make sure that markets tip quickly and definitively in the favor of electric cars, trucks, buses, and equipment, while increasing the use of clean, low carbon fuels where zero-emissions options are not yet available. Local transportation planning can make communities become healthier and more vibrant and connected – encouraging housing, walking, biking and transit policies that reduce GHGs and promote good quality of life. And, we can work to ensure that an efficient sustainable freight system continues to power our ever-growing economy.





ACHIEVING SUCCESS IN TRANSPORTATION SUSTAINABILITY

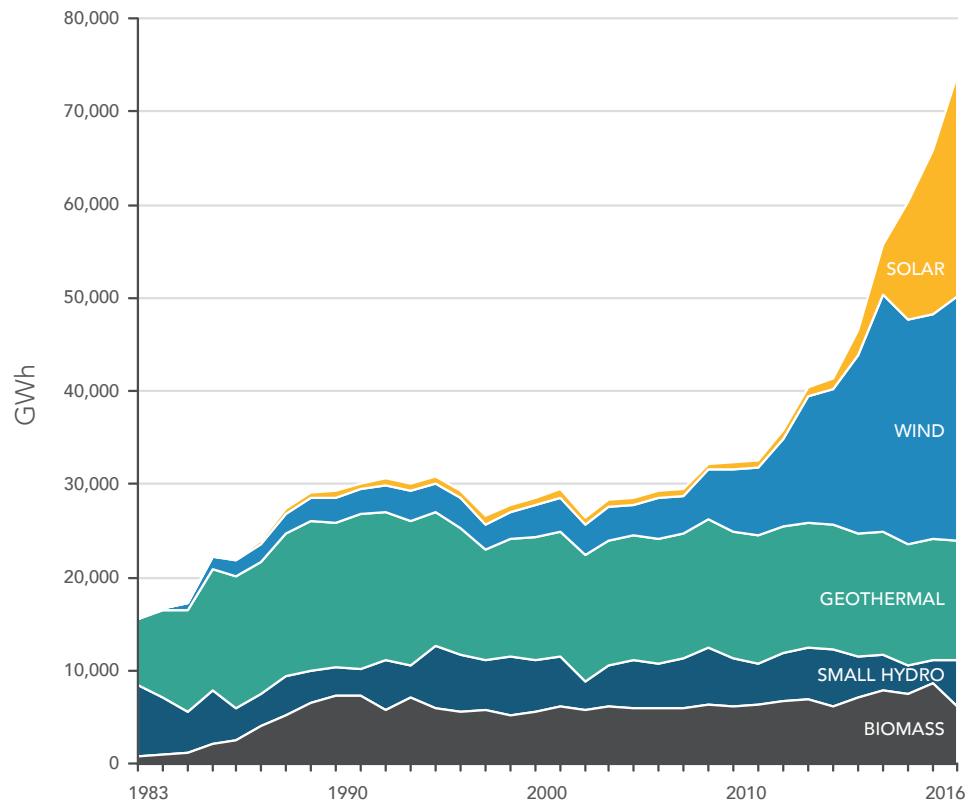
- Connect California's communities with a state-of-the-art high-speed rail system;
- Promote vibrant communities and landscapes through better planning efforts to curb vehicle-miles-traveled and increase walking, biking and transit;
- Build on the State's successful regulatory and incentive-based policies to quickly make clean cars, trucks, buses, and fuels definitive market winners;
- Coordinate agency activities to ensure that emerging automated and connected vehicle technologies reduce emissions; and
- Improve freight and goods movement efficiency and sustainability to enable California's continued economic growth.



Continue Leading on Clean Energy

California is well ahead of schedule in meeting its renewable energy targets. Wind and solar generation have grown exponentially in recent years, while hydroelectric, geothermal, and biomass have consistently contributed renewable power to our energy supply. Californians are the ones who will take action to meet energy efficiency targets, integrate renewable power through demand response, and drive demand for net zero energy buildings. This includes self-generation which also grew exponentially in recent years with installed solar totaling 2,000 megawatts (MW) in 2014 and 5,100 MW of the total statewide self-generation installed solar in 2015. By June 2017, solar installed in California was about 5,800 MW, far exceeding the State's goals.

INCREASING RENEWABLE ELECTRICITY GENERATION (IN & OUT OF STATE)

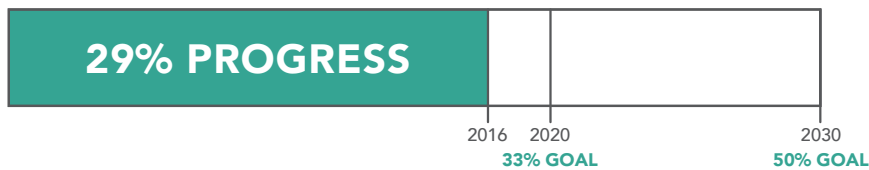


The Renewable Portfolio Standard, Carbon Pricing, and lower costs for renewable technology are delivering real environmental benefits.



While at this time natural gas is an important energy source, we must move toward cleaner heating fuels and replicate the progress underway for electricity. As with electricity, this starts with efficiency and demand reduction, including building and appliance electrification where these advancements make sense. It calls for minimizing fugitive methane leaks throughout the system, including beyond California’s borders where 90 percent of the natural gas used here originates. And, it includes using more renewable gas – a valuable in-state resource made from waste products – especially in the transportation sector. Replacing fossil fuels with renewable gas can reduce potent short-

Reaching California’s Clean Electricity Goals



The State’s 3 largest investor-owned utilities are on track to achieve a 50% RPS by 2020.

lived climate pollutants, and state policies should support this effort. Reducing demand for natural gas, and moving toward renewable natural gas, will help California achieve its 2030 climate target. However, switching from natural gas to electricity – where feasible and demonstrated to reduce GHGs – is needed to stay on track to achieve our long-term goals.

ACHIEVING SUCCESS IN CLEAN ENERGY

- Effectively integrate at least 50 percent renewables as the primary source of power in the State through coordinated planning, additional deployments of energy storage, and grid regionalization;
- Utilize distributed resources and engage customers by making net zero energy buildings standard, implement Existing Buildings Energy Efficiency Action Plan to double existing building efficiency, and increase access to energy efficiency, renewable energy, and energy use data; and
- Reduce the use of heating fuels while concurrently making what is used cleaner by minimizing fugitive methane leaks, prioritizing natural gas efficiency and demand reduction, and enabling cost-effective access to renewable gas.



Put Waste Resources to Beneficial Use

Effectively managing waste streams is perhaps the most basic of environmental tenets. “Reduce, re-use, and recycle” is a mantra known even to elementary school students. For decades California law has reduced waste reaching landfills and recaptured value from waste streams through recycling and composting. California law requires reducing, recycling, or composting 75 percent of solid waste generated by 2020. The State also has specific goals for diverting organic waste, which decomposes in landfills to produce the super pollutant methane. State law also directs edible food to hungry families rather than having it discarded.

Capturing value from waste makes sense. As described in the Healthy Soils Initiative, compost from organic matter provides soil amendments to revitalize farmland, reduces irrigation and landscaping water demand, and potentially increases long-term carbon storage in rangelands. Organic matter can also provide a clean, renewable energy source in the form of bioenergy, biofuels, or renewable natural gas.

California should take ownership of its waste and adhere to a waste “loading order” that prioritizes waste reduction, re-use, and material recovery over landfilling. The State can take steps to reduce waste from packaging, which constitutes about one-quarter of California’s waste stream. It can invest in and streamline in-state infrastructure development to support recycling, remanufacturing, composting, anaerobic digestion, and other beneficial uses of organic waste. And, it can help communities in their efforts to recover food for those in need.

ACHIEVING SUCCESS IN PUTTING WASTE RESOURCES TO BENEFICIAL USE

- Develop and implement programs, including edible food waste recovery, to divert organics from landfills and reduce methane emissions;
- Develop and implement a packaging reduction program; and
- Identify a sustainable funding mechanism to support waste management programs, including infrastructure development to support organics diversion.

Support Resilient Agricultural and Rural Economies and Natural and Working Lands

California’s natural and working landscapes, like forests and farms, are home to the most diverse sources of food, fiber, and renewable energy in the country. They underpin the state’s water supply and support clean air, wildlife habitat, and local and regional economies. They are also the frontiers of climate change. They are often the first to experience the impacts of climate change, and they hold the ultimate solution to addressing climate change and its impacts. In order to stabilize the climate, natural and working lands must play a key role.

Work to better quantify the carbon stored in natural and working lands is continuing, but given the long timelines to change landscapes, action must begin now to restore and conserve these lands. We should aim to manage our natural and working lands in California to reduce GHG emissions from business-as-usual by at least 15-20 million metric tons in 2030, to complement the measures described in this Plan.

Natural and working lands can be better incorporated into California’s climate change mitigation efforts by encouraging collaboration with local and regional organizations and increasing investment to protect, enhance, and innovate in our rural landscapes and communities.

The State is partnering with tribes to preserve carbon, protect tribal forest lands and increase their land base. Transportation and land use planning should minimize the footprint of the built environment, while supporting and investing in efforts to restore, conserve and strengthen natural and working lands. California’s forests should be healthy carbon sinks that minimize black carbon emissions where appropriate, supply new markets for woody waste and non-merchantable timber, and provide multiple ecosystem benefits.

Rehabilitating and strengthening wetlands and tidal environments, and incorporating natural landscapes into urban environments will also help make natural and working lands part of the state’s climate solution. Finally, California farmers can be a powerful force in the fight against climate change, in how they manage their lands, tend their crops, and husband their livestock.



Improved forest management on tribal lands has preserved almost 3 million metric tons of carbon in California and the revenues from the carbon offsets have been used to secure ownership of ancestral lands.

ACHIEVING SUCCESS IN SUPPORTING RESILIENT AGRICULTURAL AND RURAL ECONOMIES AND NATURAL AND WORKING LANDS

- Protect, enhance and innovate on California’s natural and working lands to ensure natural and working lands become a net carbon sink over the long-term;
- Develop and implement the Natural and Working Lands Implementation Plan to maintain these lands as a net carbon sink and avoid at least 15-20 metric tons of GHG emissions by 2030;
- Measure and monitor progress by completing CARB’s Natural and Working Lands Inventory and implementing tracking and performance monitoring systems; and
- Unleash opportunity in the agricultural sector by improving manure management, boosting soil health, generating renewable power, electrifying operations, utilizing waste biomass, and increasing water, fertilizer, and energy use efficiency to reduce super pollutants.



Secure California's Water Supplies

Water is California's lifeblood. It sustains communities and drives the economy. An elaborate network of storage and delivery systems has enabled the state to prosper and grow. But this aging system was built for a previous time and is increasingly challenged by the realities of climate change and population growth.

THE WATER-ENERGY NEXUS

- About 12% of the total energy used in the state is related to water, with 2% for conveyance, treatment and distribution, and 10% for end-customer uses like heating and cooling.
- The water-energy nexus provides opportunities for conservation of these natural resources as well as reduction of GHGs.

Producing, moving, heating and treating water demands significant energy and produces commensurately significant emissions. As California looks to the future, meeting new demands and sustaining prosperity requires increased water conservation and efficiency, improved coordination and management of various water supplies, greater understanding of the water-energy nexus, and deployment of new technologies in drinking water treatment, groundwater remediation and recharge, and potentially brackish and seawater desalination. State efforts must support systemic shifts toward conservation, efficiency, and renewable energy in the water sector.

ACHIEVING SUCCESS IN SECURING CALIFORNIA'S WATER SUPPLIES

- Increase water savings by certifying innovative technologies for water conservation and developing and implementing new conservation targets, updated agricultural water management plans, and long term conservation regulations;
- Develop a voluntary registry for GHG emissions from energy use associated with water; and
- Continue to increase the use of renewable energy to operate the State Water Project.

Cleaning the Air and Public Health

The benefits of this Plan are broader than just climate change – implementation of the Plan will also help improve public health. The Plan incorporates freight and mobile source strategies which will deliver reductions in criteria and toxic air pollutants to improve air quality.

Climate Plan Provides Health Benefits in 2030

AVOIDED
PREMATURE DEATHS



~ 3,300

VALUE OF AVOIDED
HEALTH IMPACTS



\$1.2-1.8 billion

VALUE OF AVOIDED
DAMAGES USING
SOCIAL COST OF CARBON



\$1.9-11.2 billion

California continues to seek ways to improve implementation of its climate program and its ability to address the unique set of impacts facing the state's most pollution burdened communities. In addition, CARB's environmental justice efforts are intended to reach far beyond climate change. While this Plan provides a path for reducing GHG emissions in disadvantaged communities, it also includes new tools that will complement the Plan and lead to further air quality improvements.

In particular, implementation of AB 617 will improve air quality in local communities, in partnership with local air districts, using targeted investments in neighborhood-level air monitoring and the development of air pollution reduction action plans with strong enforcement programs. These plans will require pollution reductions from both mobile and stationary sources. Through these efforts, CARB anticipates, and will work for, increased data transparency and the adoption of new statewide air pollutant emission controls that will not only confer short-term benefits to those most in need of improvement, but which will ultimately benefit all Californians.

Under the leadership of CARB's first executive-level environmental justice liaison, the agency is also laying a roadmap to better serve California's environmental justice communities in the design and implementation across its broader programs.



Successful Example of Carbon Pricing and Investment

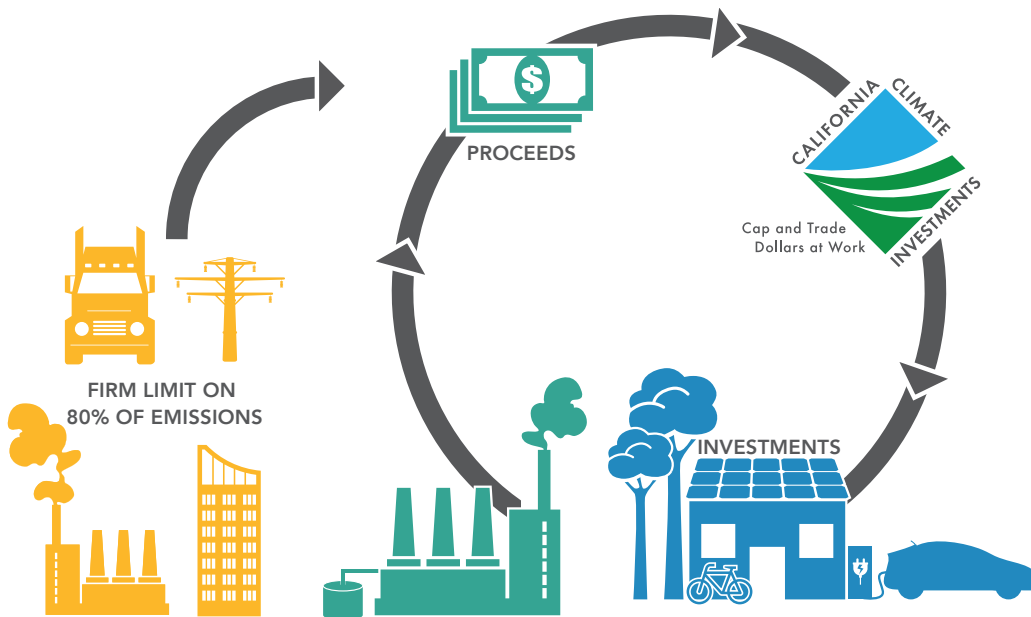
The Cap-and-Trade Program is fundamental to meeting California’s long-range climate targets at low cost. The Cap-and-Trade Program includes GHG emissions from transportation, electricity, industrial, agricultural, waste, residential and commercial sources, and caps them while complementing the other measures needed to meet the 2030 GHG target. Altogether, the emissions covered by the Cap-and-Trade program total 80 percent of all GHG emissions in California. California’s response to climate change has led to many innovative programs designed to reduce GHG emissions, including the Renewable Portfolio and Low Carbon Transportation Standards, but the Cap-and-Trade Program guarantees GHG emissions reductions through a strict overall emissions limit that decreases each year, while trading provides businesses with flexibility in their approach to reducing emissions. The Cap-and-Trade Program also generates revenue when the allowances to emit pollution are auctioned. Some of the revenue is returned directly to electricity ratepayers, and the rest is dedicated to reducing GHG emissions by making Legislatively directed investments in California with an emphasis on programs or projects that benefit disadvantaged and low-income communities.

CAP-AND-TRADE PROGRAM

- Firm, declining cap provides highest certainty to achieve 2030 target.
- Low cost GHG emission reductions minimize impact on consumers and economy.
- Flexibility for businesses
- Can be linked with similar programs worldwide.

Including the latest budget, approximately \$5 billion has been appropriated to reduce GHG emissions, reduce air pollutant emissions where reductions are needed most, grow markets for clean technologies, and spur emissions reductions in sectors not covered by Cap-and-Trade. These investments are strengthening the economy and improving public health – especially in the areas of the state most burdened by pollution. So far, half of the \$1.2 billion spent provides benefits to disadvantaged communities, and one-third of those investments were made directly in those communities.

CALIFORNIA’S CARBON PRICING & INVESTMENTS OVERVIEW



CAP-AND-TRADE DOLLARS AT WORK (2017)

California's Cap-and-Trade Program is the most comprehensive, effective, and well-designed carbon market on the planet. Today, the Program is linked with a similar program in Quebec and will link with a similar program in Ontario beginning in 2018. Nearly 40 countries and over 20 subnational entities – altogether representing nearly a quarter of global emissions – have developed, or are developing, emissions trading programs. Each of them looks to California and our linked Western Climate Initiative Partners as they design, implement, and refine their own programs.



Nearly 30,000 projects installing efficiency measures in homes



105,000+ rebates issued for zero-emission and plug-in hybrid vehicles



16,000+ acres of land preserved or restored



200+ transit agency projects funded, adding or expanding transit options



6,200+ trees planted in urban areas



1,100+ new affordable housing units under contract



50% of projects benefiting Disadvantaged Communities (\$614M)



140,000+ total projects implemented

Fostering Global Action

Through the State's leadership in the Cap-and-Trade Program, innovative sector-specific policies that are reducing technology costs and GHG emissions, and community-scale engagement and investments to reduce GHGs and promote equity, California is playing a significant role in addressing global climate change.

Governor Brown has stated that climate change is the most important issue of our lifetime, and has promoted scientifically sound approaches to address climate change in California and beyond. He has participated in international climate discussions at the United Nations headquarters in New York, the United Nations Climate Change Conference in Paris, the Vatican, and the Climate Summit of the Americas in Canada – calling on other subnational and national leaders to join California in the fight against climate change. He has signed climate change agreements with leaders from Chile, China, the Czech Republic, Israel, Japan, Mexico, the Netherlands, other North American states and provinces, and Peru. He has joined an unprecedented alliance of heads of state, city and state leaders – convened by the World Bank Group and International Monetary Fund – to urge countries and companies around the globe to put a price on carbon. And California is a founding member of the International Zero Emission Vehicle (ZEV) Alliance, a coalition of national and subnational governments working to accelerate the adoption of ZEVs and make all new



cars zero emissions. Delegations from around the world travel to Sacramento to meet with the architects and implementers of California's climate policies to learn how to successfully combine strong greenhouse gas policies with a strong economy.

Perhaps most significant is the Under2Coalition. It is a global climate pact – spearheaded by Governor Brown – among states, provinces, countries, and cities all committing to do their part to limit the increase in global average temperatures below the dangerous levels. Signatories commit to either reducing greenhouse gas emissions 80 to 95 percent below 1990 levels by 2050 or achieving a per capita annual emission target of less than 2 metric tons by 2050. More than 200 jurisdictions from 38 countries and six continents have now signed or endorsed the agreement. Together, members of the Under2Coalition represent more than 1.2 billion people and \$28.8 trillion in GDP, equivalent to 39 percent of the global economy.

Unleashing the California Spirit

This Plan is a declaration of California's path forward. It builds on the State's successful approach to addressing climate change and harnesses the California spirit to propel a cleaner economy, while serving as an example for others.

But this Plan will not be successful on its own. Our collective, and individual, efforts must reach every sector of California's economy, and every community in the state. As California faces the challenge of climate change, it will succeed as it always has – through open, inclusive processes, through support of clean technology markets, and through a relentless pursuit of a healthy California for all.

There should be no doubt that California is united in understanding the need to act, and in the will to act. Investments in clean, low-carbon options will pay off – for the environment and the economy. Investments and training in education and workforce development for a lower carbon economy are a critical part of this transition.

This Plan is only the beginning. All of the measures in the Plan will be developed in their own public process, shaped not just by the vision of this Plan, but also by the best understanding of the technology, costs and impacts on communities – and by input from a broad range of stakeholders and perspectives with the recognition that achieving the 2030 target is a milestone on our way to the deeper GHG reductions needed to protect the environment and our way of life. The Plan also proposes developing a long-term funding plan to inform future appropriations necessary to achieve our long-term targets, which will send clear market and workforce development signals.

Climate change presents unprecedented challenges, but just as we have always done, Californians will tackle them with innovation, inclusion and ultimately, success.

Chapter 1

INTRODUCTION

Background

In November 2016, California Governor Edmund G. Brown affirmed California’s role in the fight against climate change in the United States, noting, “We will protect the precious rights of our people and continue to confront the existential threat of our time–devastating climate change.” By working to reduce the threat facing the State and setting an example, California continues to lead in the climate arena. This Scoping Plan for Achieving California’s 2030 Greenhouse Gas Target (Scoping Plan or 2017 Scoping Plan) identifies how the State can reach our 2030 climate target to reduce greenhouse gas (GHG) emissions by 40 percent from 1990 levels, and substantially advance toward our 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels. By selecting and pursuing a sustainable and clean economy path for 2030, the State will continue to successfully execute existing programs, demonstrate the coupling of economic growth and environmental progress, and enhance new opportunities for engagement within the State to address and prepare for climate change.

This Scoping Plan builds on and integrates efforts already underway to reduce the State’s GHG, criteria pollutant, and toxic air contaminant emissions. Successful implementation of existing programs has put California on track to achieve the 2020 target. Programs such as the Low Carbon Fuel Standard and Renewables Portfolio Standard are delivering cleaner fuels and energy, the Advanced Clean Cars Program has put more than a quarter million clean vehicles on the road, and the Sustainable Freight Action Plan will result in efficient and cleaner systems to move goods throughout the State. Enhancing and implementing these ongoing efforts puts California on the path to achieving the 2030 target. This Scoping Plan relies on these, and other, foundational programs paired with an extended, more stringent Cap-and-Trade Program, to deliver climate, air quality, and other benefits.

In developing this Scoping Plan, it is paramount that we continue to build on California’s success by taking effective actions. We must rapidly produce real results to avoid the most catastrophic impacts of climate change. The Scoping Plan identifies policies based on solid science and identifies additional research needs, while also recognizing the need for flexibility in the face of a changing climate. Ongoing research to better understand systems where our knowledge is weaker will allow for additional opportunities to set targets and identify actionable policies. Further, a long-term funding plan to inform future appropriations is critical to achieve our long-term targets, which will send clear market and workforce development signals.

Climate Legislation and Directives

California has made progress on addressing climate change during periods of both Republican and Democratic national and State administrations. California’s governors and legislature prioritize public health and the environment. A series of executive orders and laws have generated policies and actions across State government, among local and regional governments, and within industry. These policies also have encouraged collaboration with federal agencies and spurred partnerships with many jurisdictions beyond California’s borders. Moving forward, California will continue its pursuit of collaborations and advocacy for action to address climate change. The following list provides a summary of major climate legislation and executive orders that have shaped California’s climate programs.

Assembly Bill 32 (AB 32) (Nuñez, Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006.

- Cut the State’s GHG emissions to 1990 levels by 2020 with maintained and continued reductions post 2020.
- First comprehensive climate bill in California, a defining moment in the State’s long history of environmental stewardship.

- Secured the State’s role as a national and global leader in reducing GHGs.

Pursuant to AB 32, the California Air Resources Board (CARB or Board) prepared and adopted the initial Scoping Plan to “*identify and make recommendations on direct emissions reductions measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and non-monetary incentives*” in order to achieve the 2020 goal, and to achieve “*the maximum technologically feasible and cost-effective GHG emissions reductions*” by 2020 and maintain and continue reductions beyond 2020. AB 32 requires CARB to update the Scoping Plan at least every five years.

Executive Order B-30-15

In his January 2015 inaugural address, Governor Brown identified actions in five key climate change strategy “pillars” necessary to meet California’s ambitious climate change goals. These five pillars are:

- Reducing today’s petroleum use in cars and trucks by up to 50 percent.
- Increasing from one-third to 50 percent our electricity derived from renewable sources.
- Doubling the efficiency savings achieved at existing buildings and making heating fuels cleaner.
- Reducing the release of methane, black carbon, and other short-lived climate pollutants.
- Managing farm and rangelands, forests, and wetlands so they can store carbon.

Consistent with these goals, Governor Brown signed Executive Order B-30-15 in April 2015:

- Establishing a California GHG reduction target of 40 percent below 1990 levels by 2030.
- Calling on CARB, in coordination with sister agencies, to update the AB 32 Climate Change Scoping Plan to incorporate the 2030 target.
- Building out the “sixth pillar” of the Governor’s strategy—to safeguard California in the face of a changing climate—highlighting the need to prioritize actions to reduce GHG emissions and build resilience in the face of a changing climate.

Senate Bill 350 (SB 350) (De Leon, Chapter 547, Statutes of 2015), Golden State Standards

- Required the State to set GHG reduction planning targets through Integrated Resource Planning in the electricity sector as a whole and among individual utilities and other electricity providers (collectively known as load serving entities).
- Codified an increase in the Renewables Portfolio Standard (RPS) to 50 percent by 2030¹ and doubled the energy savings required in electricity and natural gas end uses as discussed in the Governor’s inaugural address.

Senate Bill 32 (SB 32) (Pavley, Chapter 249, Statutes of 2016), California Global Warming Solutions Act of 2016: emissions limit and Assembly Bill 197 (AB 197) (E. Garcia, Chapter 250, Statutes of 2016), State Air Resources Board: greenhouse gases: regulations.

SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown’s Executive Order B-30-15. The 2030 target reflects the same science that informs the agreement reached in Paris by the 2015 Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC), aimed at keeping the global temperature increase below 2 degrees Celsius (°C). The California 2030 target represents the most ambitious GHG reduction goal for North America. Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 million metric tons of carbon dioxide equivalent (MMTCO₂e).

The companion bill to SB 32, AB 197, provides additional direction to CARB on the following areas related to the adoption of strategies to reduce GHG emissions.

- Requires annual posting of GHG, criteria, and toxic air contaminant data throughout the State, organized by local and sub-county level for stationary sources and by at least a county level for mobile sources.
- Requires CARB, when adopting rules and regulations to achieve emissions reductions

¹ <http://www.cpuc.ca.gov/renewables/>

and to protect the State's most affected and disadvantaged communities, to consider the social costs of GHG emissions and prioritize both of the following:

- Emissions reductions rules and regulations that result in direct GHG emissions reductions at large stationary sources of GHG emissions and direct emissions reductions from mobile sources.
- Emissions reductions rules and regulations that result in direct GHG emissions reductions from sources other than those listed above.
- Directs CARB, in the development of each scoping plan, to identify for each emissions reduction measure:
 - The range of projected GHG emissions reductions that result from the measure.
 - The range of projected air pollution reductions that result from the measure.
 - The cost-effectiveness, including avoided social costs, of the measure.

CARB has begun the process to implement the provisions of AB 197. For instance, CARB is already posting GHG, criteria pollutant and toxic air contaminant data. CARB also incorporated air emissions data into a visualization tool in December 2016 in response to direction in AB 197 to provide easier access to this data.²

Senate Bill 1383 (SB 1383) (Lara, Chapter 395, Statutes of 2016), Short-lived climate pollutants: methane emissions: dairy and livestock: organic waste: landfills

- Requires the development, adoption, and implementation of a Short-Lived Climate Pollutant Strategy.^{3, 4}
- Includes the following specific goals for 2030 from 2013 levels:
 - 40 percent reduction in methane.
 - 40 percent reduction in hydrofluorocarbon gases.
 - 50 percent reduction in anthropogenic black carbon.⁵

Short-lived climate pollutants (SLCPs), such as black carbon, fluorinated gases, and methane, are powerful climate forcers that have a dramatic and detrimental effect on air quality, public health, and climate change. These pollutants create a warming influence on the climate that is many times more potent than that of carbon dioxide. In March 2017, the Board adopted the Short-Lived Climate Pollutant Reduction Strategy (SLCP Strategy) establishing a path to decrease GHG emissions and displace fossil-based natural gas use. Strategies include avoiding landfill methane emissions by reducing the disposal of organics through edible food recovery, composting, in-vessel digestion, and other processes; and recovering methane from wastewater treatment facilities, and manure methane at dairies, and using the methane as a renewable source of natural gas to fuel vehicles or generate electricity. The SLCP Strategy also identifies steps to reduce natural gas leaks from oil and gas wells, pipelines, valves, and pumps to improve safety, avoid energy losses, and reduce methane emissions associated with natural gas use. Lastly, the SLCP Strategy also identifies measures that can reduce hydrofluorocarbon (HFC) emissions at national and international levels, in addition to State-level action that includes an incentive program to encourage the use of low-Global Warming Potential (GWP) refrigerants, and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment.

Assembly Bill 1504 (AB 1504) (Skinner, Chapter 534, Statutes of 2010): Forest resources: carbon sequestration

- Requires the Board of Forestry and Fire Protection to adopt district forest practice rules and regulations in accordance with specified policies to, among other things, assure the continuous growing and harvesting of commercial forest tree species.
- Requires the Board of Forestry and Fire Protection to ensure that its rules and regulations that govern the harvesting of commercial forest tree species consider the capacity of forest resources to sequester carbon dioxide emissions sufficient to meet or exceed the sequestration target of 5 million metric tons of carbon dioxide annually, as established in the first AB 32 Climate Change Scoping Plan.

² CARB. 2016. CARB's Emission Inventory Activities. www.arb.ca.gov/ei/ei.htm

³ CARB. Reducing Short-Lived Climate Pollutants in California. www.arb.ca.gov/cc/shortlived/shortlived.htm

⁴ Senate Bill No. 605. leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB605

⁵ Senate Bill No.1383. leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1383

Senate Bill 1386 (SB 1386) (Wolk, Chapter 545, Statutes of 2016): Resource conservation, natural and working lands

- Declares it the policy of the State that protection and management of natural and working lands, as defined, is an important strategy in meeting the State's GHG reduction goals.
- Requires State agencies to consider protection and management of natural and working lands in establishing policies and grant criteria, and in making expenditures, and "implement this requirement in conjunction with the State's other strategies to meet its greenhouse gas emissions reduction goals."

Assembly Bill 398 (AB 398) (E. Garcia, Chapter 135, Statutes of 2017): California Global Warming Solutions Act of 2006: market-based compliance mechanisms: fire prevention fees: sales and use tax manufacturing exemption

- Clarifies the role of the State's Cap-and-Trade Program from January 1, 2021, through December 31, 2030, continuing elements of the current program, but requiring CARB to make some post-2020 refinements.
- Establishes a Compliance Offsets Protocol Task Force to provide guidance to CARB in approving new offset protocols that increase projects with direct, in-state environmental benefits.
- Establishes the Independent Emissions Market Advisory Committee to report annually on the environmental and economic performance of the Cap-and-Trade Program and other climate policies.
- Identifies legislative priorities for allocating auction revenue proceeds, to include but not be limited to: air toxic and criteria air pollutants from stationary and mobile sources; low- and zero-carbon transportation alternatives; sustainable agricultural practices that promote transition to clean technology, water efficiency, and improved air quality; healthy forests and urban greening; short-lived climate pollutants; climate adaptation and resiliency; and climate and clean energy research.

In addition, AB 398 requires CARB to designate the Cap-and-Trade Program as the mechanism for reducing GHG emissions from petroleum refineries and oil and gas production facilities in this update to the Scoping Plan. With respect to local air districts, AB 398 states that it does not limit or expand the district's existing authority, including the authority to regulate criteria pollutants and toxic air contaminants, except that it prohibits an air district from adopting or implementing a rule for the specific purpose of reducing emissions of carbon dioxide from stationary sources that are subject to the Cap-and-Trade Program.

Assembly Bill 617 (AB 617) (C. Garcia, Chapter 136, Statutes of 2017): Nonvehicular air pollution: criteria air pollutants and toxic air contaminants.

This bill was passed as a companion to AB 398 (E. Garcia, 2017) to strengthen air quality monitoring and reduce air pollution at a community level, in communities affected by a high cumulative burden of exposure to pollution. CARB is required to prepare a monitoring plan by October 1, 2018, that assesses the State's current air monitoring network with recommendations for a set of high-priority locations around the State to deploy community focused air monitoring systems. Local air districts must deploy air monitoring systems in the selected high priority locations by July 1, 2019. Thereafter, CARB will evaluate and select additional locations for community air monitoring on an annual basis. The air districts must also deploy air monitoring systems within one year of CARB's selection of the high-priority locations. In addition to the monitoring plan, the bill requires CARB to develop a statewide strategy to reduce criteria pollutants and toxic air contaminants (TACs) in communities affected by high cumulative exposure burdens through approved community emissions reduction programs developed by local air districts, in partnership with residents in the affected communities; requires CARB to establish a uniform system of annual reporting of criteria pollutants and TACs for the existing statewide air monitoring network; and expedites implementation of best available retrofit control technology in non-attainment areas.

Tables summarizing the legislation described in this section, along with other climate related legislation and programs are included in Appendix H and organized by sector.

Initial Scoping Plan and First Update to the Scoping Plan

The Initial Scoping Plan⁶ in 2008 presented the first economy-wide approach to reducing emissions and highlighted the value of combining both carbon pricing with other complementary programs to meet California's 2020 GHG emissions target while ensuring progress in all sectors. The coordinated set of policies in the Initial Scoping Plan employed strategies tailored to specific needs, including market-based compliance mechanisms, performance standards, technology requirements, and voluntary reductions. The Initial Scoping Plan also described a conceptual design for a cap-and-trade program that included eventual linkage to other cap-and-trade programs to form a larger regional trading program.

AB 32 requires CARB to update the scoping plan at least every five years. The First Update to the Scoping Plan⁷ (First Update), approved in 2014, presented an update on the program and its progress toward meeting the 2020 limit. It also developed the first vision for long-term progress beyond 2020. In doing so, the First Update laid the groundwork for the goals set forth in Executive Orders S-3-05⁸ and B-16-2012⁹. It also identified the need for a 2030 mid-term target to establish a continuum of actions to maintain and continue reductions, rather than only focusing on targets for 2020 or 2050.

Building on California's Environmental Legacy

California's successful climate policies and programs have already delivered emissions reductions resulting from cleaner, more fuel-efficient cars and zero emission vehicles (ZEVs), low carbon fuels, increased renewable energy, and greater waste diversion from landfills; water conservation; improved forest management; and improved energy efficiency of homes and businesses. Beyond GHG reductions, these policies and programs also provide an array of benefits including improved public health, green jobs, and more clean energy choices. The 2030 GHG emissions reduction target in SB 32 will ensure that the State maintains this momentum beyond 2020, mindful of the State's population growth and needs. This Scoping Plan identifies a path to simultaneously make progress on the State's climate goals as well as complement other efforts such as the State Implementation Plans (SIPs) and community emissions reduction programs to help improve air quality in all parts of the State.

California's future climate strategy will require continued contributions from all sectors of the economy, including enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for GHG reductions at stationary sources complement efforts of local air pollution control and air quality management districts (air districts) to tighten criteria and toxics air pollution emission limits on a broad spectrum of industrial sources, including in disadvantaged communities historically located adjacent to large stationary sources. Finally, meeting the State's climate, public health, and environmental goals will entail understanding, quantifying, and addressing emissions impacts from land use decisions at all governmental levels.

Purpose of the 2017 Scoping Plan

This Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals. Chapter 2 of this document includes a description of a suite of specific actions to meet the State's 2030 GHG limit. In addition, Chapter 4 provides a broader description of the many actions and proposals being explored across the sectors, including the natural resources sector, to achieve the State's mid and long-term climate goals.

Guided by legislative direction, the actions identified in this Scoping Plan reduce overall GHG emissions in California and deliver policy signals that will continue to drive investment and certainty in a low carbon

6 CARB. Initial AB 32 Climate Change Scoping Plan. Available at: www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf

7 CARB. First Update to the AB 32 Scoping Plan. Available at: www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm

8 www.gov.ca.gov/news.php?id=1861

9 www.gov.ca.gov/news.php?id=17472

economy. This Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constrains and reduces emissions at covered sources.

Process for Developing the 2017 Scoping Plan

This Scoping Plan was developed in coordination with State agencies, through engagement with the Legislature, and with open and transparent opportunities for stakeholders and the public to engage in workshops and other meetings. Development also included careful consideration of, and coordination with, other State agency plans and regulations, including the Cap-and-Trade Program, Low Carbon Fuel Standard (LCFS), State Implementation Plan, California Sustainable Freight Action Plan, California Transportation Plan 2040, Forest Carbon Plan, and the Short-Lived Climate Pollutant Strategy, among others.

To inform this Scoping Plan, CARB, in collaboration with the Governor's Office and other State agencies, solicited comments and feedback from affected stakeholders, including the public, and the Environmental Justice Advisory Committee (EJAC or Committee). The process to update the 2017 Scoping Plan began with the Governor's Office Pillar Symposia, which included over a dozen public workshops, and featured a series of Committee and environmental justice community meetings.¹⁰

One key message conveyed to CARB during engagement with the legislature, EJAC, and environmental justice communities was the need to emphasize reductions at large stationary sources, with a particular focus on multi-pollutant strategies for these sources to reduce GHGs and harmful criteria and toxic air pollutants that result in localized health impacts, especially in disadvantaged communities. Other consistent feedback for CARB included the need for built and natural infrastructure improvements that enhance quality of life, increase access to safe and viable transportation options, and improve physical activity and related health outcomes.

Updated Climate Science Supports the Need for More Action

Climate scientists agree that global warming and other shifts in the climate system observed over the past century are caused by human activities. These recorded changes are occurring at an unprecedented rate.¹¹ According to new research, unabated GHG emissions could allow sea levels to rise up to ten feet by the end of this century—an outcome that could devastate coastal communities in California and around the world.¹²

California is already feeling the effects of climate change, and projections show that these effects will continue and worsen over the coming centuries. The impacts of climate change have been documented by the Office of Environmental Health Hazard Assessment (OEHHA) in the Indicators of Climate Change Report, which details the following changes that are occurring already:¹³

- A recorded increase in annual average temperatures, as well as increases in daily minimum and maximum temperatures.
- An increase in the occurrence of extreme events, including wildfire and heat waves.
- A reduction in spring runoff volumes, as a result of declining snowpack.
- A decrease in winter chill hours, necessary for the production of high-value fruit and nut crops.
- Changes in the timing and location of species sightings, including migration upslope of flora and fauna, and earlier appearance of Central Valley butterflies.

¹⁰ www.arb.ca.gov/cc/scopingplan/scopingplan.htm

¹¹ Cook, J., et al. 2016. Consensus on consensus: A synthesis of consensus estimates on human-caused global warming. *Environmental Research Letters* 11:048002 doi:10.1088/1748-9326/11/4/048002. iopscience.iop.org/article/10.1088/1748-9326/11/4/048002.

¹² California Ocean Protection Council. 2017. Rising Seas in California: An Update On Sea-Level Rise Science. www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf

¹³ Office of Environmental Health Hazard Assessment, Indicators of Climate Change (website): oehha.ca.gov/climate-change/document/indicators-climate-change-california

In addition to these trends, the State's current conditions point to a changing climate. California's recent historic drought incited land subsidence, pest invasions that killed over 100 million trees, and water shortages throughout the State. Recent scientific studies show that such extreme drought conditions are more likely to occur under a changing climate.^{14,15} The total statewide economic cost of the 2013–2014 drought was estimated at \$2.2 billion, with a total loss of 17,100 jobs.¹⁶ In the Central Valley, the drought cost California agriculture about \$2.7 billion and more than 20,000 jobs in 2015, which highlights the critical need for developing drought resilience.¹⁷ Drought affects other sectors as well. An analysis of the amount of water consumed in meeting California's energy needs between 1990 and 2012 shows that while California's energy policies have supported climate mitigation efforts, the performance of these policies have increased vulnerability to climate impacts, especially greater hydrologic uncertainty.¹⁸

Several publications carefully examined the potential role of climate change in the recent California drought. One study examined both precipitation and runoff in the Sacramento and San Joaquin River basins, and found that 10 of the past 14 years between 2000 and 2014 have been below normal, and recent years have been the driest and hottest in the full instrumental record from 1895 through November 2014.¹⁹ In another study, the authors show that the increasing co-occurrence of dry years with warm years raises the risk of drought, highlighting the critical role of elevated temperatures in altering water availability and increasing overall drought intensity and impact.²⁰ Generally, there is growing risk of unprecedented drought in the western United States driven primarily by rising temperatures, regardless of whether or not there is a clear precipitation trend.²¹

According to the U.S. Forest Service report, National Insect and Disease Forest Risk Assessment, 2013–2027,²² California is at risk of losing 12 percent of the total area of forests and woodlands in the State due to insects and disease, or over 5.7 million acres. Some species are expected to lose significant amounts of their total basal area (e.g., whitebark pine is projected to lose 60 percent of its basal area; and lodgepole pine is projected to lose 40 percent). While future climate change is not modeled within the risk assessment, and current drought conditions are not accounted for in these estimates, the projected climate changes over a 15 year period (2013–2027) are expected to significantly increase the number of acres at risk, and will increase the risk from already highly destructive pests such as the mountain pine beetle. Extensive tree mortality is already prevalent in California. The western pine beetle and other bark beetles have killed a majority of the ponderosa pine in the foothills of the central and southern Sierra Nevada Mountains. A recent aerial survey by the U.S. Forest Service identified more than 100 million dead trees in California.²³ As there is usually a lag time between drought years and tree mortality, we are now beginning to see a sharp rise in mortality from the past four years of drought. In response to the very high levels of tree mortality, Governor Brown issued an Emergency Proclamation on October 30, 2015, that directed state agencies to identify and take action to reduce wildfire risk through the removal and use of the dead trees.

14 Diffenbaugh, N., D. L. Swain, and D. Touma. 2015. Anthropogenic Warming has Increased Drought Risk in California. *Proceedings of the National Academy of Sciences* 112(13): 3931–3936.

15 Cayan, D., T. Das, D. W. Pierce, T. P. Barnett, M. Tyree, and A. Gershunov. 2010. Future Dryness in the Southwest US and Hydrology of the Early 21st Century Drought. *Proceedings of the National Academy of Sciences* 107(50): 21272–21276.

16 Howitt, R., J. Medellin-Azuara, D. MacEwan, J. Lund, and D. Summer. 2014. Economic Impacts of 2014 Drought on California Agriculture. watershed.ucdavis.edu/files/biblio/DroughtReport_23July2014_0.pdf.

17 Williams, A. P., et al. 2015. Contribution of anthropogenic warming to California drought during 2012–2014. *Geophysical Research Letters* <http://onlinelibrary.wiley.com/doi/10.1002/2015GL064924/abstract>.

18 Fulton, J., and H. Cooley. 2015. The water footprint of California's energy system, 1990–2012. *Environmental Science & Technology* 49(6):3314–3321. pubs.acs.org/doi/abs/10.1021/es505034x.

19 Mann, M. E., and P. H. Gleick. 2015. Climate change and California drought in the 21st century. *Proceedings of the National Academy of Sciences of the United States of America*, 112(13):3858–3859. doi.org/10.1073/pnas.1503667112.

20 Diffenbaugh, N. S., D. L. Swain, and D. Touma. 2015. Anthropogenic warming has increased drought risk in California. *Proceedings of the National Academy of Sciences of the United States of America*. 10.1073/pnas.1422385112. www.pnas.org/content/112/13/3931.full.pdf

21 Cook, B. I., T. R. Ault, and J. E. Smerdon. 2015. Unprecedented 21st century drought risk in the American Southwest and Central Plains. *Science Advances* 1(1), e1400082, doi:10.1126/sciadv.1400082.

22 Krist, F.J. Jr., J.R. Ellenwood, M.E. Woods, A.J. McMahan, J.P. Cowardin, D.E. Ryerson, F.J. Sapio, M.O. Zweifler, S.A. Romero. 2014. FHTET 2013 – 2027 National Insect & and Disease Forest Risk Assessment. FHTET-14-01 January 2014. Available at: http://www.fs.fed.us/foresthealth/technology/pdfs/2012_RiskMap_Report_web.pdf

23 USDA. 2016. New Aerial Survey Identifies More Than 100 Million Dead Trees in California. www.usda.gov/wps/portal/usda/usdahome?contentid=2016/11/0246.xml&contentidonly=true



CLIMATE IMPACTS AT THE COMMUNITY LEVEL

The California Energy Commission Cal-Adapt tool provides information about future climate conditions to help better understand how climate will impact local communities.

cal-adapt.org

A warming climate also causes sea level to rise; first, by warming the oceans which causes the water to expand, and second, by melting land ice which transfers water to the ocean. Even if storms do not become more intense or frequent, sea level rise itself will magnify the adverse impact of any storm surge and high waves on the California coast. Some observational studies report that the largest waves are already getting higher and winds are getting stronger.²⁴ Further, as temperatures warm and GHG concentrations increase more carbon dioxide dissolves in the ocean, making it more acidic. More acidic ocean water affects a wide variety of marine species, including species that people rely on for food. Recent projections indicate that if no significant GHG mitigation efforts are taken, the San Francisco Bay Area may experience sea level rise between 1.6 to 3.4 feet, and in an extreme scenario involving the rapid loss of the Antarctic ice sheet, sea levels along California's coastline could rise up to 10 feet by 2100.²⁵ This change is likely to have substantial ecological and economic consequences in California and worldwide.²⁶

While more intense dry periods are anticipated under warmer conditions, extremes on the wet end of the spectrum are also expected to increase due to more frequent warm, wet atmospheric river events and a higher proportion of precipitation falling as rain instead of snow. In recent years, atmospheric rivers have also been recognized as the cause of the large majority of major floods in rivers

all along the U.S. West Coast and as the source of 30-50 percent of all precipitation in the same region.²⁷ These extreme precipitation events, together with the rising snowline, often cause devastating floods in major river basins (e.g., California's Russian River). It was estimated that the top 50 observed floods in the U.S. Pacific Northwest were due to atmospheric rivers.²⁸ Looking ahead, the frequency and severity of atmospheric rivers on the U.S. West Coast will increase due to higher atmospheric water vapor that occurs with rising temperature, leading to more frequent flooding.^{29, 30}

Climate change can drive extreme weather events such as coastal storm surges, drought, wildfires, floods, and heat waves, and disrupt environmental systems including our forests and oceans. As GHG emissions continue to accumulate and climate disruption grows, such destructive events will become more frequent. Several recent studies project increased precipitation within hurricanes over ocean regions.^{31, 32} The primary physical mechanism for this increase is higher water vapor in the warmer atmosphere, which enhances moisture convergence in a storm for a given circulation strength. Since hurricanes are responsible for many of the most extreme precipitation events, such events are likely to become more extreme. Anthropogenic warming by

24 National Research Council of the National Academy of Sciences. 2012. Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future. National Academies Press.

25 California Ocean Protection Council. 2017. Rising Seas in California: An Update On Sea-Level Rise Science. www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf

26 Chan, F., et al. 2016. The West Coast Ocean Acidification and Hypoxia Science Panel: Major Findings, Recommendations, and Actions. California Ocean Science Trust, Oakland, California, USA.

27 Dettinger, M. D. 2013. Atmospheric rivers as drought busters on the U.S. West Coast. *Journal of Hydrometeorology* 14:1721-1732, doi:10.1175/JHM-D-13-02.1. journals.ametsoc.org/doi/abs/10.1175/JHM-D-13-02.1.

28 Warner, M. D., C. F. Mass, and E. P. Salathé. 2012. Wintertime extreme precipitation events along the Pacific Northwest coast: Climatology and synoptic evolution. *Monthly Weather Review* 140:2021-43. <http://journals.ametsoc.org/doi/abs/10.1175/MWR-D-11-00197.1>.

29 Hagos, S. M., L. R. Leung, J.-H. Yoon, J. Lu, and Y. Gao, 2016: A projection of changes in landfalling atmospheric river frequency and extreme precipitation over western North America from the Large Ensemble CESM simulations. *Geophysical Research Letters*, 43 (3), 357-1363, <http://onlinelibrary.wiley.com/doi/10.1002/2015GL067392/epdf>.

30 Payne, A. E., and G. Magnusdottir, 2015: An evaluation of atmospheric rivers over the North Pacific in CMIP5 and their response to warming under RCP 8.5. *Journal of Geophysical Research: Atmospheres*, 120 (21), 11,173-11,190, <http://onlinelibrary.wiley.com/doi/10.1002/2015JD023586/epdf>.

31 Easterling, D.R., K.E. Kunkel, M.F. Wehner, and L. Sun, 2016: Detection and attribution of climate extremes in the observed record. *Weather and Climate Extremes*, 11, 17-27. <http://dx.doi.org/10.1016/j.wace.2016.01.001>.

32 NAS, 2016: Attribution of Extreme Weather Events in the Context of Climate Change. The National Academies Press, Washington, DC, 186 pp. <http://dx.doi.org/10.17226/21852>.

the end of the 21st century will likely cause tropical cyclones globally to become more intense on average. This change implies an even larger percentage increase in the destructive potential per storm, assuming no changes in storm size.^{33,34} Thus, the historical record, which once set our expectations for the traditional range of weather and other natural events, is becoming an increasingly unreliable predictor of the conditions we will face in the future. Consequently, the best available science must drive effective climate policy.

California is committed to further supporting new research on ways to mitigate climate change and how to understand its ongoing and projected impacts. California's Fourth Climate Change Assessment and Indicators of Change Report will further update our understanding of the many impacts from climate change in a way that directly informs State agencies' efforts to safeguard the State's people, economy, and environment.^{35, 36}

Together, historical data, current conditions, and future projections provide a picture of California's changing climate, with two important messages:

- Change is already being experienced and documented across California, and some of these changes have been directly linked to changing climatic conditions.
- Even with the uncertainty in future climate conditions, every scenario estimates further change in future conditions.

It is critical that California continue to take steps to reduce GHG emissions in order to avoid the worst of the projected impacts of climate change. At the same time, the State is taking steps to make the State more resilient to ongoing and projected climate impacts as laid out by the Safeguarding California Plan.³⁷ The Safeguarding California Plan is being updated in 2017 to present new policy recommendations and provide a roadmap of all the actions and next steps that state government is taking to adapt to the ongoing and inevitable effects of climate change. The Draft Safeguarding California Plan³⁸ is available and will be finalized after workshops and public comments. California's continuing efforts are vital steps toward minimizing the impact of GHG emissions and a three-pronged approach of reducing emissions, preparing for impacts, and conducting cutting-edge research can serve as a model for action.

California's Greenhouse Gas Emissions and the 2030 Target

Progress Toward Achieving the 2020 Limit

AB 32 directs CARB to develop and track GHG emissions and progress toward the 2020 statewide GHG target. California is on track to achieve the target while also reducing criteria pollutants and toxic air contaminants and supporting economic growth. As shown in Figure 1, in 2015, total GHG emissions decreased by 1.5 MMTCO₂e compared to 2014, representing an overall decrease of 10 percent since peak levels in 2004. The 2015 GHG Emission Inventory and a description of the methodology updates can be accessed at: www.arb.ca.gov/cc/inventory/inventory.htm.

Per California Health and Safety Code section 38505, CARB monitors and regulates seven GHGs to reduce emissions: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and nitrogen trifluoride (NF₃). The fluorinated gases are also referred to as "high global warming potential gases" (high-GWP gases). California's annual statewide GHG emission inventory has historically been the primary tool for tracking GHG emissions trends. Figure 1 provides the GHG inventory trend. Additional information on the methodology for the GHG inventory can also be found at: www.arb.ca.gov/cc/inventory/data/data.htm.

33 Sobel, A.H., S.J. Camargo, T.M. Hall, C.-Y. Lee, M.K. Tippett, and A.A. Wing, 2016: Human influence on tropical cyclone intensity. *Science*, 353, 242-246.

34 Kossin, J. P., K. A. Emanuel, and S. J. Camargo, 2016: Past and projected changes in western North Pacific tropical cyclone exposure. *Journal of Climate*, 29 (16), 5725-5739, <https://doi.org/10.1175/JCLI-D-16-0076.1>.

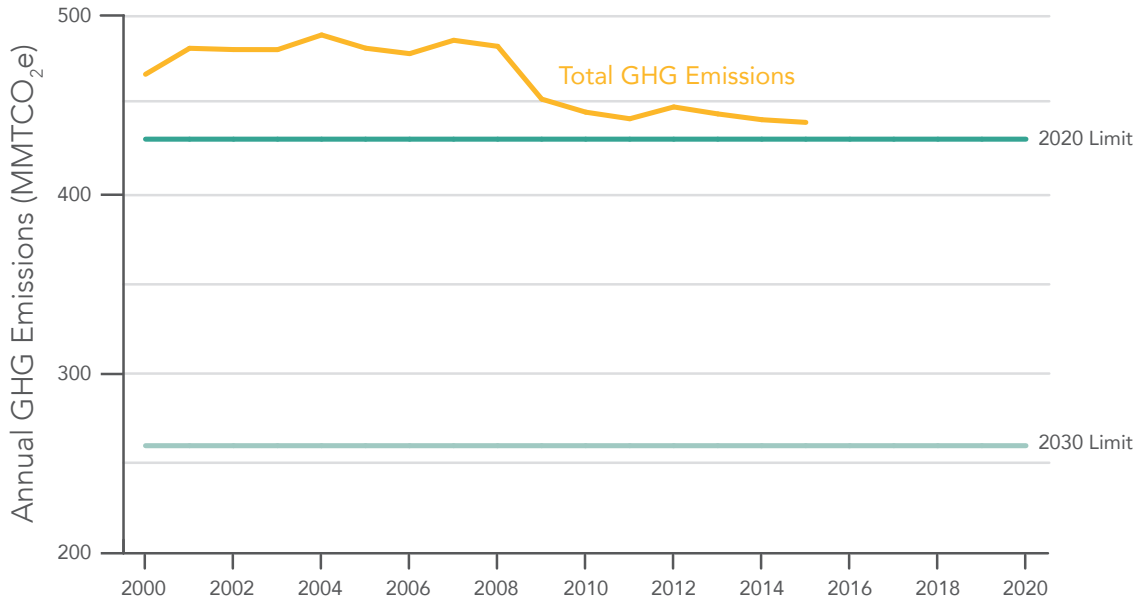
35 California's Fourth Climate Change Assessment. <http://resources.ca.gov/climate/safeguarding/research/>

36 Office of Environmental Health Hazard Assessment, Indicators of Climate Change (website): <https://oehha.ca.gov/climate-change/document/indicators-climate-change-california>

37 California Natural Resources Agency. 2017. Safeguarding California. <http://resources.ca.gov/climate/safeguarding/>

38 <http://resources.ca.gov/climate/safeguarding/>

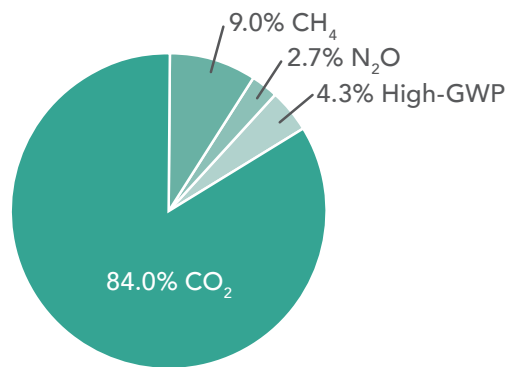
FIGURE 1: CALIFORNIA GHG INVENTORY TREND



Carbon dioxide is the primary GHG emitted in California, accounting for 84 percent of total GHG emissions in 2015, as shown in Figure 2 below. Figure 3 illustrates that transportation, primarily on-road travel, is the single largest source of CO₂ emissions in the State. Upstream transportation emissions from the refinery and oil and gas sectors are categorized as CO₂ emissions from industrial sources and constitute about 50 percent of the industrial source emissions. When these emissions sources are attributed to the transportation sector, the emissions from that sector amount to approximately half of statewide GHG emissions. In addition to transportation, electricity production, and industrial and residential sources also are important contributors to CO₂ emissions.

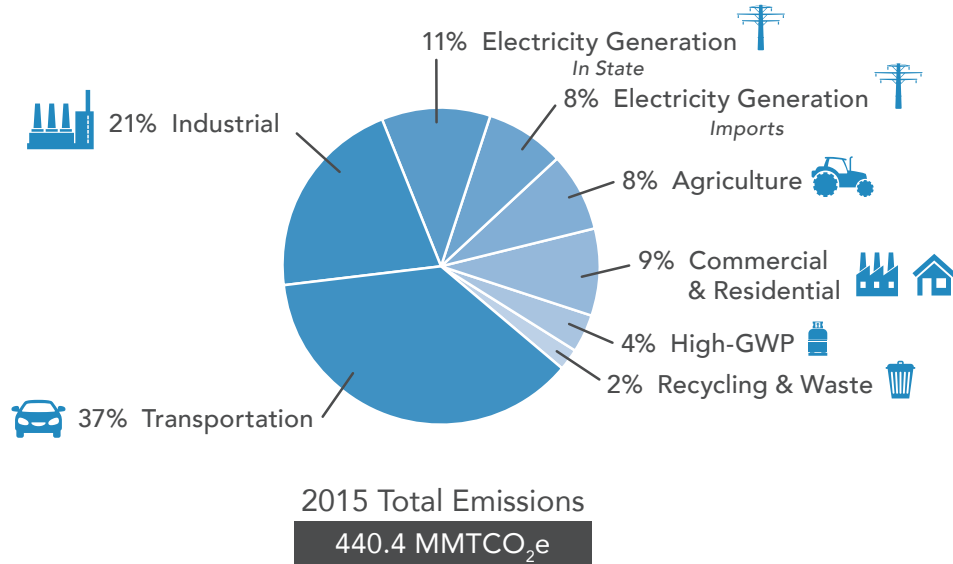
Figures 2 and 3 show State GHG emission contributions by GHG and sector based on the 2015 GHG Emission Inventory. Emissions in Figure 3 are depicted by Scoping Plan sector, which includes separate categories for high-GWP and recycling/waste emissions that are otherwise typically included within other economic sectors.

FIGURE 2: EMISSIONS BY GHG



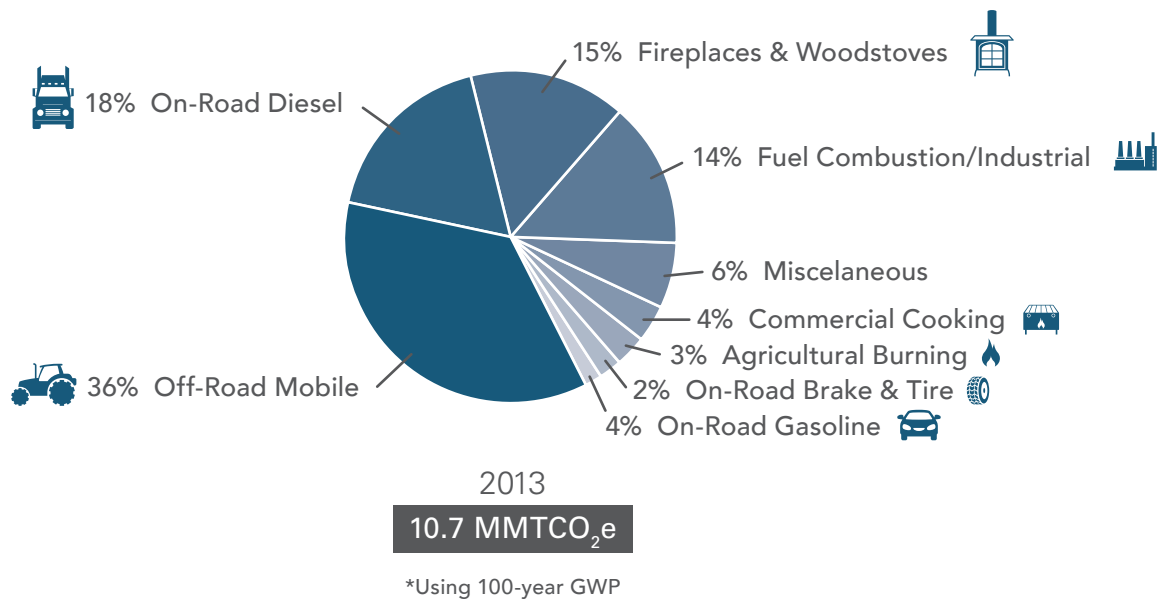
2015 Total Emissions
440.4 MMTCo₂e

FIGURE 3: EMISSIONS BY SCOPING PLAN SECTOR



In addition, CARB has developed a statewide emission inventory for black carbon in support of the SLCP Strategy, which is reported in two categories: non-forestry (anthropogenic) sources and forestry sources.³⁹ The black carbon inventory will help support implementation of the SLCP Strategy, but is not part of the State’s GHG Inventory that tracks progress towards the State’s climate targets. The State’s major anthropogenic sources of black carbon include off-road transportation, on-road transportation, residential wood burning, fuel combustion, and industrial processes (Figure 4). The forestry category includes non-agricultural prescribed burning and wildfire emissions.

FIGURE 4: CALIFORNIA 2013 ANTHROPOGENIC BLACK CARBON EMISSION SOURCES*



The exchange of CO₂ between the atmosphere and California’s natural and working lands sector is currently unquantified and therefore, excluded from the State’s GHG Inventory. A natural and working lands carbon inventory is essential for monitoring land-based activities that may increase or decrease carbon sequestration over time. CARB staff is working to develop a comprehensive inventory of GHG fluxes from all of California’s

³⁹ Per SB 1383, the SLCP Strategy only addresses anthropogenic black carbon.

natural and working lands using the Intergovernmental Panel on Climate Change (IPCC) design principles. CARB released the Natural and Working Lands Inventory with the 2030 Target Scoping Plan Update Discussion Draft.⁴⁰ This inventory provides an estimate of GHG emissions reductions and changes in carbon stock from some carbon pools in agricultural and natural and working lands. The CARB Natural and Working Lands Inventory includes an inventory of carbon stocks, stock-change (and by extension GHG flux associated with stock-change) with some attribution by disturbance process for the analysis period 2001-2010. Disturbance processes include activities such as conversion from one land category to a different category, fire, and harvest. The CARB Natural and Working Lands Inventory covers varieties of forests and woodlands, grasslands, and wetlands (biomass-stock-change only). The Inventory includes default carbon densities for croplands and urban/developed lands to facilitate stock-change estimation for natural lands that convert to cropland, natural lands that convert to developed lands, and for croplands that convert to developed lands.

Greenhouse Gas Emissions Tracking

As described above, California maintains an economy-wide GHG inventory for the State that is consistent with IPCC practices to allow for comparison of statewide GHG emissions with those at the national level and with other international GHG inventories. Statewide GHG emissions calculations use many data sources, including data from other State and federal agencies. However, the primary source of data comes from reports submitted to CARB through the Regulation for the Mandatory Reporting of GHG Emissions (MRR). MRR requires facilities and entities with more than 10,000 metric tons of carbon dioxide equivalent (MTCO₂e) of combustion and process emissions, all facilities belonging to certain industries, and all electric power entities to submit an annual GHG emissions data report directly to CARB. Reports from facilities and entities that emit more than 25,000 MTCO₂e are verified by a CARB-accredited third-party verification body. More information on MRR emissions reports can be found at: www.arb.ca.gov/cc/reporting/ghg-rep/reported-data/ghg-reports.htm.

All data sources used to develop the GHG Emission Inventory are listed in inventory supporting documentation at: www.arb.ca.gov/cc/inventory/data/data.htm.

Other State agencies, nonprofit organizations, and research institutions are developing and testing methodologies and models to quantify GHG fluxes from California's natural and working lands. CARB's ongoing work on the Natural and Working Lands Inventory will serve as one source of data to gauge the scope of GHG reduction potential from California's natural and working lands and monitor progress over time. CARB will evaluate other data sources and methodologies to validate or support the CARB inventory or project-scale tracking. Interagency work is also underway to integrate and account for the land use and management impacts of development, transportation, housing, and energy policies.

Greenhouse gas mitigation action may cross geographic borders as part of international and subnational collaboration, or as a natural result of implementation of regional policies. In addition to the State's existing GHG inventory, CARB has begun exploring how to build an accounting framework that also utilizes existing program data to better reflect the broader benefits of our policies that may be happening outside of the State. For GHG reductions outside of the State to be attributed to our programs, those reductions must be real and quantifiable, without any double counting, including claims to those reductions by other jurisdictions. CARB is collaborating with other jurisdictions to ensure GHG accounting rules are consistent with international best practices. Robust accounting rules will instill confidence in the reductions claimed and maintain support for joint action across jurisdictions. Consistency and transparency are critical as we work together with other jurisdictions on our parallel paths to achieve our GHG targets.

California's Approach to Addressing Climate Change

Integrated Systems

The State's climate goals require a comprehensive approach that integrates and builds upon multiple ongoing State efforts. As we address future mobility, we identify how existing efforts – such as the California Sustainable Freight Action Plan, Mobile Source Strategy, California Transportation Plan 2040, High-Speed

⁴⁰ CARB. 2016. California Greenhouse Gas Inventory - Forests and Other Lands. www.arb.ca.gov/cc/inventory/sectors/forest/forest.htm

Rail,⁴¹ urban planning, housing, and goals for enhancement of the natural environment – can complement each other while providing multiple environmental benefits, including air quality and climate benefits. The collective consideration of these efforts illuminates the synergies and conflicts between policies. For example, land disturbance due to increased renewables through utility scale wind and solar and transmission can release GHGs from soil and disturb grasslands and rangelands that have the potential to sequester carbon. Further, policies that support sustainable land use not only reduce vehicle miles traveled (VMT) and its related emissions, but may also avoid land disturbance that could result in GHG emissions or loss of sequestration potential in the natural environment. Identifying these types of trade-offs, and designing policies and implementation strategies to support goals across all sectors, will require ongoing efforts at the local, regional, and State level to ensure that sustainable action across both the built and natural environments help to achieve the State’s long-term climate goals.

Promoting Resilient Economic Growth

California’s strategic vision for achieving at least a 40 percent reduction in GHG emissions by 2030 is based on the principle that economic prosperity and environmental sustainability can be achieved together. Policies, strategies, plans and regulations to reduce GHG emissions help California businesses compete in a global economy and spur new investments, business creation, and jobs to support a clean energy economy. California’s portfolio-based climate strategy can achieve great success when accompanied by consistent and rigorous GHG monitoring and reporting, a robust public process, and an effective enforcement program for the few that attempt to evade rules. The transition to a low-carbon future can strengthen California’s economy and infrastructure and produce other important environmental benefits such as reductions in criteria pollutants and toxic air contaminants, especially in California’s most vulnerable communities.

Actions that are presented in this Scoping Plan provide economic opportunities for the future, but progress toward our goals is already evident today. For example, in 2015, California added more than 20,000 new jobs in the solar sector. This was more than half of the new jobs in this industry across the nation. Employment in the clean economy grew by 20 percent between 2002 and 2012, which included the period of economic recession around 2008.⁴² Shifting to clean, local, and efficient uses of energy reinvests our energy expenditures in our local economies and reduces risks to our statewide economy associated with exposure to volatile global and national oil and gas commodity prices. Indeed, a clean economy is a resilient economy.

Successfully driving economic transition will require cleaner and more efficient technologies, policies and incentives that recognize and reward innovation, and prioritizing low carbon investments. Enacting policies and incentives at multiple jurisdictional levels further ensures the advancement of land use and natural resource management objectives for GHG mitigation, climate adaptation, and other co-benefits. Intentional synergistic linkages between technological advances and resource stewardship can result in sustainable development. The development and implementation of Sustainable Communities Strategies (SCSs) pursuant to Senate Bill (SB) 375, which link transportation, housing, and climate policy, are designed to reduce per capita GHG emissions while improving air quality and expanding transportation and housing options. This Scoping Plan identifies additional ways, beyond SB 375, to promote the technologies and infrastructure required to meet our collective climate goals, while also presenting the vision for California’s continuing efforts to foster a sustainable, clean energy economy.

Increasing Carbon Sequestration in Natural and Working Lands

California’s natural and working lands make the State a global leader in agriculture, a U.S. leader in forest products, and a global biodiversity hotspot. These lands support clean air, wildlife and pollinator habitat, rural economies, and are critical components of California’s water infrastructure. Keeping these lands and waters intact and at high levels of ecological function (including resilient carbon sequestration) is necessary for the well-being and security of Californians in 2030, 2050, and beyond. Forests, rangelands, farms,

41 California’s High-Speed Rail is part of the International Union of Railways (UIC) and California signed the Railway Climate Responsibility Pledge, which was commended by the Secretary of the UN Framework Convention on Climate Change as part of achieving global 2050 targets.

42 California Business Alliance for a Clean Economy. 2015. Clean Energy and Climate Change Summary of Recent Analyses for California. clean-economy.org/wp-content/uploads/2015/01/Clean-Energy-Climate-Change-Analyses_January2015.pdf

wetlands, riparian areas, deserts, coastal areas, and the ocean store substantial carbon in biomass and soils. Natural and working lands are a key sector in the State's climate change strategy. Storing carbon in trees, other vegetation, soils, and aquatic sediment is an effective way to remove carbon dioxide from the atmosphere. This Scoping Plan describes policies and programs that prioritize protection and enhancement of California's landscapes, including urban landscapes, and identifies next steps to ensure management actions are taken to increase the sequestration potential of those resources. We cannot ignore the relationships between energy, transportation, and natural working lands sectors or the adverse impacts that climate change is having on the environment itself. We must consider important trade-offs in developing the State's climate strategy by understanding the near and long-term impacts of various policy scenarios and actions on our State and local communities.

Improving Public Health

The State's drive to improve air quality and promote community health and well-being as we address climate change remains a priority, as it has for almost 50 years. The State is committed to addressing public health issues, including addressing chronic and infectious diseases, promoting mental health, and protecting communities from exposure to harmful air pollutants and toxins. Several of the strategies included in this Plan were primarily developed to help California achieve federal and State ambient air quality standards for air pollutants with direct health impacts, but they will also deliver GHG reductions. Likewise, some climate strategies, such as GHG reduction measures that decrease diesel combustion from mobile sources, produce air quality co-benefits in the form of concurrent reductions in criteria pollutants and toxic air contaminants.

Climate change itself is already affecting the health of our communities and is exacerbating existing health inequities. Those facing the greatest health burdens include low-income individuals and households, the very young and the very old, communities of color, and those who have been marginalized or discriminated against based on gender or race/ethnicity.⁴³ Economic factors, such as income, poverty, and wealth, are among the strongest determinants of health. Addressing climate change presents an important opportunity to improve public health for all of California's residents and to further our work toward making our State the healthiest in the nation.

The major provisions of AB 617 (C. Garcia, 2017), to be completed by 2020, will ensure that as the State seeks to advance climate policy to meet the 2030 target, we will also act locally to improve neighborhood air quality. AB 617 requires strengthening and expanding community level air monitoring; expediting equipment retrofits at large industrial sources that are located in areas that are in nonattainment for the federal and State ambient air quality standards; requiring development of a statewide strategy to further reduce criteria pollutants and toxic air contaminants in communities faced with high cumulative exposure levels; and local air district-developed community emissions reductions plans that identify emissions reductions targets, measures, implementation schedules, and enforcement plans for these affected communities. By identifying and addressing the disproportionate impacts felt today and by planning, designing, and implementing actions for a sustainable future that considers both climate and air quality objectives, we can be part of the solution to make public health inequities an issue of the past.

Environmental Justice

Fair and equitable climate action requires addressing the inequities that create and intensify community vulnerabilities. The capacity for resilience in the face of climate change is driven by living conditions and the forces that shape them. These include, but are not limited to, access to services such as health care, healthy foods, air and water, and safe spaces for physical activity; income; education; housing; transportation; environmental quality; and good health status. Strategies to alleviate poverty, increase access to economic opportunities, improve living conditions, and reduce health and social inequities will result in more climate-resilient communities. The transition to a low carbon California economy provides an opportunity to not only reduce GHG emissions, but also to reduce emissions of criteria pollutants and air toxins, and to create a healthier environment for all of California's residents, especially those living in the State's most disadvantaged communities. Policies designed to facilitate this transition and state-wide, regional, and local reductions,

⁴³ California Department of Public Health (CDPH). 2015. The Portrait of Promise: The California Statewide Draft Plan to Promote Health and Mental Health Equity. A Report to the Legislature and the People of California by the Office of Health Equity. Sacramento, CA: California Department of Public Health, Office of Health Equity.

must also be appropriately tailored to address the unique characteristics of economically distressed communities throughout the State's diverse geographic regions, including both rural and highly-urbanized areas. Equity considerations must likewise be part of the deliberate and thoughtful process in the design and implementation of all policies and measures included in the Scoping Plan. And CARB must ensure that its ongoing engagement with environmental justice communities will continue beyond the development of the Scoping Plan and be included in all aspects of its various air pollution programs. Additional detail on CARB's efforts to achieve these goals is provided in Chapter 5.

It is critical that communities of color, low-income communities, or both, receive the benefits of the cleaner economy growing in California, including its environmental and economic benefits. Currently, low-income customers enrolled in the California Alternate Rates for Energy (CARE) Program or the Family Electric Rate Assistance (FERA) Program are also eligible to receive a rebate under the California Climate Credit, or a credit on residential and small business electricity bills resulting from the sale of allowances received by investor-owned utilities as part of the Cap-and-Trade Program. SB 1018 (Committee on Budget and Fiscal Review, Chapter 39, Statutes of 2012) and other implementing legislation requires that Cap-and-Trade Program auction monies deposited into the Greenhouse Gas Reduction Fund (GGRF) be used to further the purposes of AB 32 and facilitate reduction of GHG emissions. Investments made with these funds not only reduce GHG emissions, but also provide other environmental, health, and economic benefits including, fostering job creation by promoting in-state GHG emissions reduction projects carried out by California workers and businesses.

Further, SB 535 (De Leon, Chapter 830, Statutes of 2012) and AB 1550 (Gomez, Chapter 369, Statutes of 2016) direct State and local agencies to make significant investments using GGRF monies to assist California's most vulnerable communities. Under SB 535 (de León, Chapter 830, Statutes of 2012), a minimum of 25 percent of the total investments were required to benefit disadvantaged communities; of that, a minimum of 10 percent were required to be located within and provide benefits to those communities. Based on cumulative data reported by agencies as of March 2016, the State is exceeding these targets. Indeed, 50 percent of the \$1.2 billion dollars spent on California Climate Investments projects provided benefits to disadvantaged communities; and 34 percent of this funding was used on projects located directly in disadvantaged communities.⁴⁴

Environmental Justice Advisory Committee

AB 32 calls for CARB to convene an Environmental Justice Advisory Committee (EJAC), to advise the Board in developing the Scoping Plan, and any other pertinent matter in implementing AB 32. It requires that the Committee be comprised of representatives from communities in the State with the most significant exposure to air pollution, including, but not limited to, communities with minority populations or low-income

ENVIRONMENTAL JUSTICE ADVISORY COMMITTEE

Martha Dina Argüello	Physicians for Social Responsibility	Los Angeles
Colin Bailey	The Environmental Justice Coalition for Water	Sacramento
Gisele Fong	End Oil	Los Angeles
Tom Frantz	Association of Irrigated Residents	Central Valley
Katie Valenzuela Garcia (Served until May 2017)	Oak Park Neighborhood Association	Sacramento
Sekita Grant (Served until June 2017)	The Greenlining Institute	Statewide
Kevin Hamilton	Central California Asthma Collaborative	Central Valley
Rey León	Valley LEAP	Central Valley
Luis Olmedo	Comité Civico Del Valle	Salton Sea Region
Kemba Shakur	Urban Releaf	Bay Area
Mari Rose Taruc	Asian Pacific Environmental Network	Bay Area
Eleanor Torres	The Incredible Edible Community Garden	Inland Empire
Monica Wilson	Global Alliance for Incinerator Alternatives	Bay Area

44 www.arb.ca.gov/cc/capandtrade/auctionproceeds/ci_annual_report_2017.pdf

populations, or both. CARB consulted 13 environmental justice and disadvantaged community representatives for the 2017 Scoping Plan process, starting with the first Committee meeting in December 2015. In February and April 2017, members of the California Air Resources Board held joint public meetings with the EJAC to discuss options for addressing environmental justice and disadvantaged community concerns in the Scoping Plan. The full schedule of Committee meetings and meeting materials is available on CARB's website.⁴⁵

Starting in July 2016, the Committee hosted a robust community engagement process, conducting 19 community meetings throughout the State. To enhance this community engagement, CARB staff coordinated with staff from local government agencies and sister State agencies. At the community meetings, staff from State and local agencies participated in extensive, topic-specific "world café" discussions with local groups and individuals. The extensive dialogue between the EJAC, State agencies, and local agencies provided community residents the opportunity to share concerns and provide input on ways California can meet its 2030 GHG target while addressing a number of environmental and equity issues.

Environmental Justice Advisory Committee Recommendations

The Committee's recommendations for the Scoping Plan were informed by comments received at community meetings described above and Committee member expertise. Recommendations were provided for the sector focus areas, overarching environmental justice policy, and California Climate Investments. The Committee also sorted their recommendations into five themes: partnership with environmental justice communities, equity, economic opportunity, coordination, and long-term vision. Finally, the Committee provided direction that their recommendations are intended "to be read and implemented holistically and not independently of each other." The EJAC's recommendations, in their entirety, are included in Appendix A and available at www.arb.ca.gov/cc/ejac/meetings/04262017/ejac-sp-recommendations033017.pdf.

The Committee's overarching recommendations for partnership with environmental justice communities, equity, coordination, economic opportunity, and long-term vision include the following recommendations:

- Encourage long-term community engagement, a culture shift in California, and neighborhood-level solutions to promote the implementation of the State's climate plans, using strategies identified by the Committee.
- Improve the balance of reducing GHGs and compliance costs with other AB 32 goals of improving air quality in environmental justice communities while maximizing benefits for all Californians.
- Consider public health impacts and equity when examining issues in any sector and have CARB conduct an equity analysis on the Scoping Plan and each sector, with guidance from the Committee.
- Develop metrics to ensure actions are meeting targets and develop contingency plans for mitigation and adjustment if emissions increases occur as programs are implemented.
- Develop a statewide community-based air monitoring network to support regulatory efforts and monitor neighborhood scale pollution in disadvantaged communities.
- Coordinate strategies between State, federal, and local agencies for strong, enforceable, evidence-based policies to prevent and address sprawl with equity at the center.
- Maximize the accessibility of safe jobs, incentives, and economic benefits for Californians and the development of a just transition for workers and communities in and around polluting industries.
- Prioritize improving air quality in environmental justice communities and analyze scenarios at a neighborhood scale for all California communities.
- Ensure that AB 32 economic reviewers come from various areas around the State to represent insights on economic challenges and opportunities from those regions.
- Do not limit the Scoping Plan to examining interventions and impacts until 2030, or even 2050. Plan and analyze on a longer-term scale to prevent short-sighted mistakes and reach the long-term vision, as actions today and for the next 30 years will have impacts for seven generations.
- The Scoping Plan must prioritize GHG reductions and investments in California environmental justice communities first, before other California communities; and the innovation of new technologies or strategies to reach even deeper emissions cuts, whenever possible.
- Convene the Committee beyond the Scoping Plan development process.

The Committee's key Energy sector recommendations include:

- Developing aggressive energy goals toward 100 percent renewable energy by 2030, including a vision for a clean energy economy, and prioritizing actions in disadvantaged communities.

⁴⁵ www.arb.ca.gov/cc/ejac/ejac.htm

- Setting goals for green buildings.
- Enforcing GHG reduction targets for existing buildings, and providing upgrades that enable buildings to use renewable energy technologies and water capture.
- Prioritizing and supporting community-owned technologies, such as community-owned solar, for environmental justice communities.

Key Water sector recommendations include:

- Encouraging water conservation and recycling.
- Prioritizing safe drinking water for all.

The Committee's key Industry sector recommendations include:

- Prioritizing direct emissions reductions in environmental justice communities.
- Replacing the Cap-and-Trade Program with a carbon tax or fee and dividend program.
- Eliminating offsets and the allocation of free allowances if the Cap-and-Trade Program continues.
- Analyze where GHG emissions are increasing and identify strategies to prevent and reduce such emissions in environmental justice communities.
- Committing to reductions in petroleum use.

The Committee's key Transportation sector recommendations include:

- Increasing access to affordable, reliable, clean, and safe mobility options in disadvantaged communities.
- Community-engaged land use planning.
- Maximizing electrification.
- Restricting sprawl and examining transportation regionally.
- Considering the development of green transportation hubs that integrate urban greening with transportation options and implement the recommendations of the SB 350 studies.

The Committee's key Natural and Working Lands, Agriculture, and Waste sector recommendations include:

- Reducing waste and mandating that local jurisdictions manage the waste they create.
- Returning carbon to the soil.
- Not burning biomass or considering it a renewable resource.
- Supporting healthy soils as a critical element to land and waste management.
- Integrating urban forestry within local communities.
- Exploring ways to allow and streamline the process for cultural and prescribed burning for land management and to prevent large-scale wildfires.
- Including an annual reduction of 5 million metric tons of CO₂e from natural and working lands.

The Committee's recommendations for California Climate Investments include:

- Ensuring near-term technologies do not adversely impact communities and long-term investments move toward zero emissions.
- Requiring GGRF projects to be transformative for disadvantaged communities as defined by each community.
- Eliminating funding for AB 32 regulated entities.
- Providing technical assistance to environmental justice communities so they can better access funding and resources.
- Prioritizing projects identified by communities and ensuring all applicants have policies to protect against displacement or gentrification.

In April 2017, EJAC members provided a refined list of priority changes for the Scoping Plan from the full list of EJAC recommendations. CARB staff responded to each priority recommendation, describing additions to the Scoping Plan or suggested next steps for recommendations beyond the level of detail in the Plan. Appendix A includes the Priority EJAC Recommendations with CARB Responses and full list of EJAC Recommendations.

More information about the Committee and its recommendations on the previous Scoping Plans and this Scoping Plan is located at: www.arb.ca.gov/ejac.

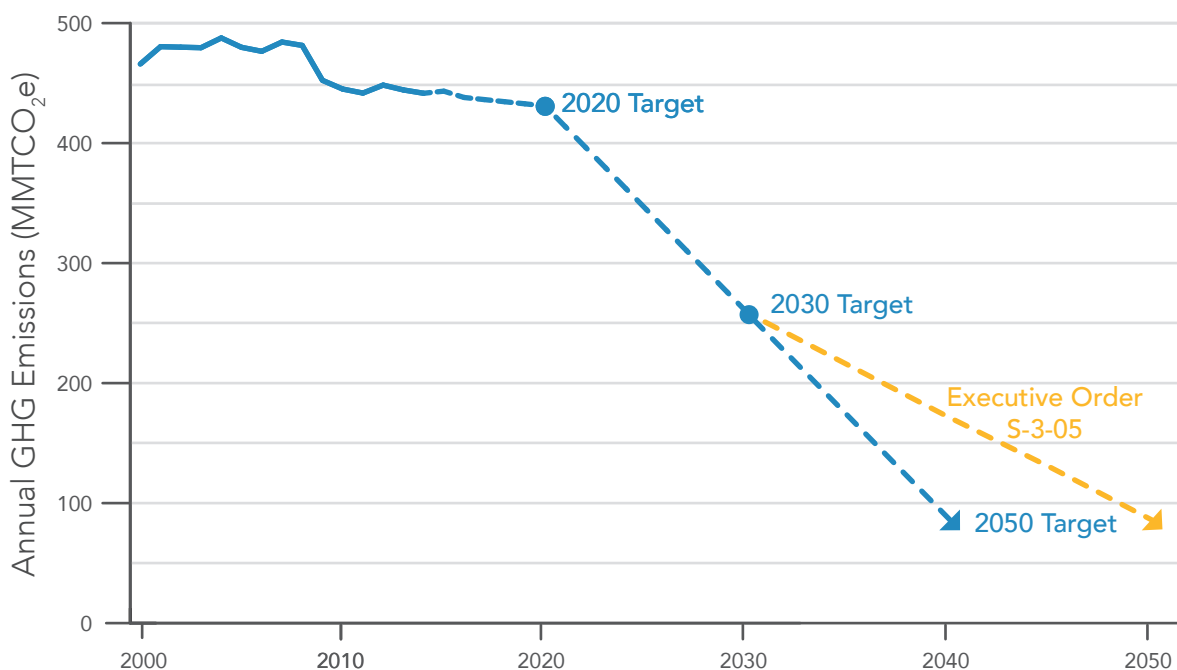
Setting the Path to 2050

The State's 2020 and 2030 targets have not been set in isolation. They represent benchmarks, consistent with prevailing climate science, charting an appropriate trajectory forward that is in-line with California's role in stabilizing global warming below dangerous thresholds. As we consider efforts to reduce emissions to meet the State's near-term requirements, we must do so with an eye toward reductions needed beyond 2030, as well. The Paris Agreement – which calls for limiting global warming to well below 2 degrees Celsius and aiming to limit it below a 1.5 degrees Celsius – frames our path forward.

While the Scoping Plan charts the path to achieving the 2030 GHG emissions reduction target, we also need momentum to propel us to the 2050 statewide GHG target (80 percent below 1990 levels). In developing this Scoping Plan, we considered what policies are needed to meet our mid-term and long-term goals. For example, though Zero Net Carbon Buildings are not feasible at this time and more work needs to be done in this area, they will be necessary to achieve the 2050 target. To that end, work must begin now to review and evaluate research in this area, establish a planning horizon for targets, and identify implementation mechanisms. Concurrently, we must consider and implement policies that not only deliver critical reductions in 2030 and continue to help support the State's long-term climate objectives, but that also deliver other health, environmental and economic benefits. We should not just be planning to put 1.5 million ZEVs on the road by 2025 or 4.2 million on the road by 2030 – but rather, we should be comprehensively facilitating the market-wide transition to electric drive that we need to see materialize as soon as possible. This means that we need to be working towards making all fuels low carbon as quickly as possible, even as we incrementally ramp up volume requirements through the Low Carbon Fuel Standard. And it means that we need to support the broad array of actions and strategies identified in Chapter 4, and new ones that may emerge – to keep us on track to achieve deeper GHG reductions to protect the environment and our way of life. As with all investments, the approach taken must balance risk, reward, longevity, and timing.

Figure 5 illustrates the potential GHG reductions that are possible by making consistent progress between 2020 and 2050, versus an approach that begins with the 2030 target and then makes progress toward the 2050 level included in Executive Order S-3-05. Depending on our success in achieving the 2030 target, taking a consistent approach may be possible. It would achieve the 2050 target earlier, and together with similar actions globally, would have a greater chance of preventing global warming of 2°C. The strategy for achieving the 2050 target should leave open the possibility for both paths. Note that Figure 5 does not include emissions or sequestration potential from the natural and working lands sector or black carbon.

FIGURE 5: PLOTTING CALIFORNIA'S PATH FORWARD



Intergovernmental Collaboration

Federal, state, Tribal, and local action can be complementary. We have seen federal action through the Clean Air Act, regulations for GHG emissions from passenger cars and trucks, development of the Clean Power Plan to limit GHGs from power plants, and the advancement of methane rules for oil and gas production. We have also seen recent federal efforts to delay or reverse some of these actions. As we have done in the past, California, working with other climate leaders, can take steps to advance more ambitious federal action and protect the ability of states to move forward to address climate change. Both collaboration and advocacy will mark the road ahead. However, to the extent that California cannot implement policies or measures included in the Scoping Plan because of the lack of federal action, we will develop alternative measures to achieve the reductions from the same sectors to ensure we meet our GHG reduction targets.

Regional, Tribal, and local governments and agencies are critical leaders in reducing emissions through actions that reduce demand for electricity, transportation fuels, and natural gas, and improved natural and working lands management. Many local governments already employ efforts to reduce GHG emissions beyond those required by the State. For example, many cities and counties improve their municipal operations by upgrading vehicle fleets, retrofitting government buildings and streetlights, purchasing greener products, and implementing waste-reduction policies. In addition, they may adopt more sustainable codes, standards, and general plan improvements to reduce their community's footprints and emissions. Many Tribes within and outside of California have engaged in consultations with CARB to develop robust carbon offset projects under California's Cap-and-Trade Program, in particular forest projects. In fact, Tribal forest projects represent a significant percentage of offset credits issued under the Program. These consultations and carbon sequestration projects are in addition to other Tribal climate-related efforts. The State will provide a supportive framework to advance these and other local efforts, while also recognizing the need to build on, and export, this success to other regional, Tribal, and local governments throughout California and beyond.

Local actions are critical for implementation of California's ambitious climate agenda. State policies, programs, and actions—such as many of those identified throughout this Scoping Plan—can help to support, incentivize, and accelerate local actions to achieve mutual goals for more sustainable and resilient communities. Local municipal code changes, zoning changes, or policy directions that apply broadly to the community within the general plan or climate action plan area can promote the deployment of renewable, zero emission, and low carbon technologies such as zero net energy buildings, renewable fuel production facilities, and zero emission charging stations. Local decision-making has an especially important role in achieving reductions of GHG emissions generated from transportation. Over the last 60 years, development patterns have led to sprawling suburban neighborhoods, a vast highway system, growth in automobile ownership, and under-prioritization of infrastructure for public transit and active transportation. Local decisions about these policies today can establish a more sustainable built environment for the future.

International Efforts

California is not alone in its efforts to address climate change at the international level to reduce global GHG emissions. The agreement reached in Paris by the 2015 Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC), aimed at keeping the global temperature rise below 2°C, is spurring worldwide action to reduce GHGs and support decarbonization across the global economy. In recent years, subnational governments have emerged to take on a prominent role. With the establishment of the Under 2 Memorandum of Understanding (MOU),^{46,47} the Governors' Climate and Forests Task Force,⁴⁸ and the Western Climate Initiative,⁴⁹ among other partnership initiatives, subnational jurisdictions from the around the world are collaborating and leading on how best to address climate change.

46 Under 2 MOU website: under2mou.org/

47 One of the Brown Administration's priorities is to highlight California's climate leadership on the subnational level, and to ensure that subnational activity is recognized at the international level. In the year preceding the Paris negotiations, the Governor's Office recruited subnational jurisdictions to sign onto the Memorandum of Understanding on Subnational Global Climate Leadership (Under 2 MOU), which brings together states and regions willing to commit to reducing their GHG emissions by 80 to 95 percent, or to limit emissions to 2 metric tons CO₂-equivalent per capita, by 2050. The governor led a California delegation to the Paris negotiations to highlight our successful climate programs and to champion subnational action and international cooperation on meeting the challenge of reducing GHG emissions. As of October 2017, 188 jurisdictions representing more than 1.2 billion people and more than one-third of the global economy had joined California in the Under 2 MOU.

48 Governors' Climate and Forests Task Force website: www.gcftaskforce.org/

49 Western Climate Initiative website: www.wci-inc.org/

From its inception, AB 32 recognized the importance of California’s climate leadership and engagement with other jurisdictions, and directed CARB to consult with the federal government and other nations to identify the most effective strategies and methods to reduce GHGs, manage GHG control programs, and facilitate the development of integrated and cost-effective regional, national, and international GHG reduction programs. California undertook a two-pronged approach: first, we assessed our State-specific circumstances to develop measures that would apply specifically in California; and second, we assessed which measures might lend themselves, through careful design and collaboration with other interested jurisdictions, toward linked or collaborative GHG reduction programs. Under the Clean Air Act, California has a special role as an innovator and leader in the area of motor vehicle emission regulations, which allows our State to adopt motor vehicle emission standards that are stricter than federal requirements. Partners around the country and the world emulate these motor vehicle standards, leading to widespread health benefits. Similarly, by enacting a comprehensive climate strategy that appeals to national and international partners, California can help lead the world in tackling climate change.

Today, the State’s Cap-and-Trade Program is linked with Québec’s program and scheduled to link with Ontario’s emissions trading system on January 1, 2018. Low carbon fuel mandates similar to California’s LCFS have been adopted by the United States Environmental Protection Agency (U.S. EPA) and by other jurisdictions including Oregon, British Columbia, the European Union, and the United Kingdom. Over two-dozen states have a renewables portfolio standard. California is a member of the Pacific Coast Collaborative with British Columbia, Oregon, and Washington, who collaborate on issues such as energy and sustainable resource management, among others.⁵⁰ California continues to discuss carbon pricing through a cap-and-trade program with international delegations. We have seen design features of the State’s Cap-and-Trade Program incorporated into other emerging and existing programs, such as the European Union Emissions Trading System, the Regional Greenhouse Gas Initiative, China’s emerging national trading program, and Mexico’s emerging pilot emission trading program.

Recognizing the need to address the substantial GHG emissions caused by the deforestation and degradation of tropical and other forests, California worked with a group of subnational governments to form the Governors’ Climate and Forests Task Force (GCF) in 2008.⁵¹ The GCF is currently comprised of 38 different subnational jurisdictions— including states and provinces in Brazil, Colombia, Ecuador, Indonesia, Ivory Coast, Mexico, Nigeria, Peru, Spain, and the United States—that are contemplating or enacting programs for low-emissions rural development and reduced emissions from deforestation and land use. GCF members continue to engage in discussions to share information and experiences about the design of such programs and how the programs could potentially interact with carbon markets. Ongoing engagement between California and its GCF partners, as well as ongoing discussions with other stakeholders, continues to provide lessons on how such programs could complement California’s climate programs.⁵²

Further, California’s High-Speed Rail is part of the International Union of Railways (UIC), and California has signed the Railway Climate Responsibility Pledge, which was commended by the Secretary of the UNFCCC as part of achieving the global 2050 targets. This initiative is to demonstrate that rail transport is part of the solution for sustainable and carbon free mobility.

California will continue to engage in multi-lateral forums that develop the policy foundation and technical infrastructure for GHG regulations in multiple jurisdictions through entities such as the International Carbon Action Partnership (ICAP), established by California and other partners in 2007. Members of the ICAP that have already implemented or are actively pursuing market-based GHG programs⁵³ share experiences and knowledge. California also participates in the Partnership for Market Readiness (PMR), a multilateral World Bank initiative that brings together more than 30 developed and developing countries to share experiences and build capacity for climate change mitigation efforts, particularly those implemented using market instruments.⁵⁴ In November 2014, CARB became a Technical Partner of the PMR, and CARB staff members have provided technical information on the design and implementation of the Cap-and-Trade Program at several PMR meetings.

50 Pacific Coast Collaborative website: pacificcoastcollaborative.org/

51 Governors’ Climate and Forests Task Force Website: www.gcftaskforce.org/

52 Continued collaboration on efforts to reduce emissions from tropical deforestation and to evaluate sector-based offset programs, such as the jurisdictional program in Acre, Brazil, further demonstrates California’s ongoing climate leadership and fosters partnerships on mutually beneficial low emissions development initiatives, including measures to encourage sustainable supply chain efforts by public and private entities.

53 International Carbon Action Partnership website: icapcarbonaction.com/

54 Partnership for Market Readiness website: www.thepmr.org/

Many foreign jurisdictions seek out California's expertise because of our history of success in addressing air pollution and climate change. California also benefits from these interactions. Expanding global action to fight air pollution and climate change expands markets for clean technology. This can bolster business for companies in California developing clean energy products and services and help to bring down the cost of those products globally and in California. Additionally, innovative policies and lessons learned from our partners' jurisdictions can help to inform future climate policies in California.

Governor Brown's focus on subnational collaborations on climate change and air quality has strengthened and deepened California's existing international relationships and forged new ones. These relationships are a critical component of reducing emissions of GHGs and other pollutants worldwide. As we move forward, CARB and other State agencies will continue to communicate and collaborate with international partners to find the most cost-effective ways to improve air quality, fight climate change, and share California's experience and expertise in reducing air pollution and GHGs while growing a strong economy. To highlight the State's resolve and support of other governments committed to action and tackling the threat of the global warming, on July 6, 2017, Governor Brown announced a major initiative to host world leaders at a Global Climate Action Summit planned for September 2018 in San Francisco.

Chapter 2

THE SCOPING PLAN SCENARIO

This chapter describes the State strategy for meeting the 2030 GHG target (also called the Scoping Plan Scenario), along with a short description of the four alternative scenarios, which were evaluated but ultimately rejected when compared against statutory and policy criteria and priorities that the State’s comprehensive climate action must deliver. All scenarios are set against the business-as-usual (BAU or Reference Scenario) scenario—what would GHG emissions look like if we did nothing beyond the existing policies that are required and already in place to achieve the 2020 limit. BAU includes the existing renewables requirements, advanced clean cars, the 10 percent reduction in carbon intensity Low Carbon Fuel Standard, and the SB 375 program for sustainable communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years.

The Reference Scenario (BAU) shows continuing, but modest, reductions followed by a later rise of GHG emissions as the economy and population grow. The comprehensive analysis of all five alternatives indicates that the Scoping Plan Scenario—continuing the Cap-and-Trade Program—is the best choice to achieve the State’s climate and clean air goals. It also protects public health, provides a solid foundation for continued economic growth, and supports California’s quality of life.

All of the alternative scenarios briefly described in this chapter are the product of the Scoping Plan development process and were informed by public input, including that from EJAC, as well as Board and legislative direction over the course of two years. The scenarios all include a range of additional measures developed or required by legislation over the past two years with 2030 as their target date and include: extending the LCFS to an 18 percent reduction in carbon intensity beyond 2020, and the requirements of SB 350 to increase renewables to 50 percent and to double energy efficiency savings. They also all include the Mobile Source Strategy targets for more zero emission vehicles and much cleaner trucks and transit, the Sustainable Freight Action Plan to improve freight efficiency and transition to zero emission freight handling technologies, and the requirements under SB 1383 to reduce anthropogenic black carbon 50 percent and hydrofluorocarbon and methane emissions by 40 percent below 2013 levels by 2030. The recent adoption of AB 398 into State law on July 25, 2017, clarifies the role of the Cap-and-Trade Program through December 31, 2030.

Work is still underway on how to quantify the GHG emissions within the natural and working lands sector. As such, the analyses in this chapter do not include any estimates from this sector. Additional information on the current efforts to better understand GHG emissions fluxes and model the actions needed to support the goal of net carbon sequestration in natural and working lands can be found in Chapter 4. Even absent quantification data, the importance of this sector in achieving the State’s climate goals should be considered in conjunction with any efforts to reduce GHG emissions in the energy and industrial sectors.

During the development of the Scoping Plan, stakeholders suggested alternative scenarios to achieve the 2030 target. While countless scenarios could potentially be developed and evaluated, the four below were considered, as they were most often included in comments by stakeholders and they bracket the range of potential scenarios. Several of these alternative scenarios were also evaluated in the Initial AB 32 Scoping Plan in 2008 (All Regulations, Carbon Tax).⁵⁵ Since the adoption of the Initial AB 32 Scoping Plan, some of the alternative scenarios have been implemented or contemplated by other jurisdictions, which has helped in the analysis and the development of this Scoping Plan. This section provides a brief description of the alternatives. A full description of the alternatives and staff’s AB 197 and policy analyses are included in Appendix G.

⁵⁵ CARB. 2009. Initial AB 32 Climate Change Scoping Plan Document. www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm

Scoping Plan Scenario: Ongoing and statutorily required programs and continuing the Cap-and-Trade Program. This scenario was modified from the January 2017 Proposed Scoping Plan to reflect AB 398, including removal of the 20 percent refinery measure.

Alternative 1: No Cap-and-Trade. Includes additional activities in a wide variety of sectors, such as specific required reductions for all large GHG sources, and more extensive requirements for renewable energy. Industrial sources would be regulated through command and control strategies.

Alternative 2: Carbon Tax. A carbon tax to put a price, but not limit, on carbon, instead of the Cap-and-Trade Program.

Alternative 3: All Cap-and-Trade. This alternative is the same as the Scoping Plan Scenario, while maintaining the LCFS at a 10 percent reduction in carbon intensity past 2020.

Alternative 4: Cap-and-Tax. This would place a declining cap on individual industrial facilities, and individual natural gas and fuel suppliers, while also requiring them to pay a tax on each metric ton of GHGs emitted.

Since the statutory direction on meeting a 2030 GHG target is clear, the issue of certainty of reductions is paramount. These alternatives vary greatly as to the certainty of meeting the target. The declining mass emissions cap under a cap-and-trade program provides certain and measurable reductions over time; a carbon tax, meanwhile, establishes some carbon price certainty, but does not provide an assurance on reductions and instead assumes that some degree of reductions will occur if costs are high enough to alter behavior.

There are also other considerations: to what extent does an alternative meet the target, but also deliver clean air benefits, prioritize reductions at large stationary sources, and allow for continued investment in disadvantaged communities? What is the cost of an alternative and what will be the impact on California consumers? Does an alternative allow for California to link with other jurisdictions, and support the Clean Power Plan⁵⁶ and other federal and international climate programs? Does an alternative provide for flexibility for regulated entities, and a cost-effective approach to reduce greenhouse gases?

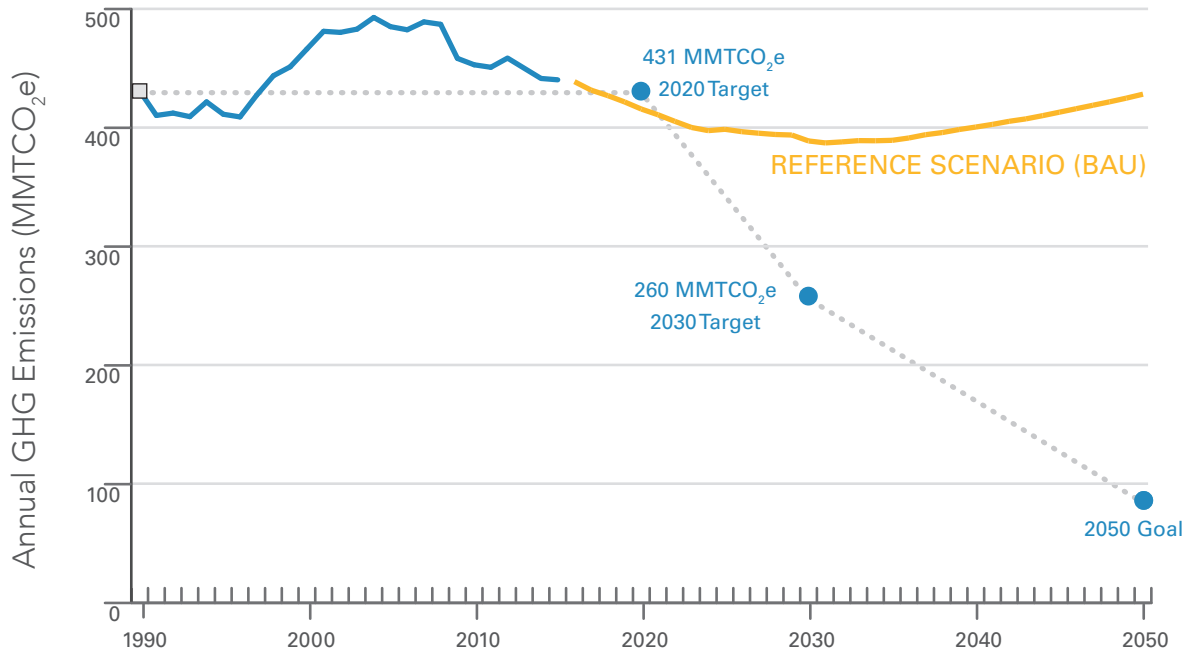
The Scoping Plan Scenario provides a portfolio of policies and measures that balances this combination of objectives, including the highest certainty to achieve the 2030 target, while protecting the California economy and consumers. A more detailed analyses of the alternatives is provided in Appendix G.

Scoping Plan Scenario

The development of the Scoping Plan began by first modeling a Reference Scenario (BAU). The Reference Scenario is the forecasted statewide GHG emissions through 2030 with existing policies and programs, but without any further action to reduce GHGs. Figure 6 provides the modeling results for a Reference Scenario for this Scoping Plan. The graph shows the State is expected to reduce emissions below the 2020 statewide GHG target, but additional effort will be needed to maintain and continue GHG reductions to meet the mid- (2030) and long-term (2050) targets. Figure 6 depicts a linear, straight-line path to the 2030 target. It should be noted that in any year, GHG emissions may be higher or lower than the straight line. That is to be expected as periods of economic recession or increased economic activity, annual variations in hydropower, and many other factors may influence a single or several years of GHG emissions in the State. CARB's annual GHG reporting and inventory will provide data on progress towards achieving the 2030 target. More details about the modeling for the Reference Scenario can be found in Appendix D.

⁵⁶ Although the Clean Power Plan is being challenged in legal and administrative processes, its requirements reflect U.S. EPA's statutory obligation to regulate greenhouse gases from the power sector. Thus it, and other federal programs, are a key consideration for Scoping Plan development.

FIGURE 6: 2017 SCOPING PLAN REFERENCE SCENARIO



The Scoping Plan Scenario is summarized in Table 1. As shown in the table, most of the measures are identified as “known commitments” (marked with “*”), meaning that they are existing programs or required by statute. These commitments are not part of the Reference Scenario (BAU) in Figure 6 since their passage and implementation is related to meeting the Governor’s climate pillars, the 2030 climate target, or other long-term climate and air quality objectives. In addition to the known commitments, the Scoping Plan Scenario includes a post-2020 Cap-and-Trade Program.

TABLE 1: SCOPING PLAN SCENARIO

Policy	Primary Objective	Highlights	Implementation Time Frame
SB 350 ^{57*}	Reduce GHG emissions in the electricity sector through the implementation of the 50 percent RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions planning targets in the Integrated Resource Plan (IRP) process.	<ul style="list-style-type: none"> • Load-serving entities file plans to achieve GHG emissions reductions planning targets while ensuring reliability and meeting the State’s other policy goals cost-effectively. • 50 percent RPS. • Doubling of energy efficiency savings in natural gas and electricity end uses statewide. 	2030
Low Carbon Fuel Standard (LCFS)*	Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	<ul style="list-style-type: none"> • At least 18 percent reduction in carbon intensity, as included in the Mobile Source Strategy. 	2030
Mobile Source Strategy (Cleaner Technology and Fuels [CTF] Scenario) ^{58*}	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of vehicle miles traveled.	<ul style="list-style-type: none"> • 1.5 million zero emission vehicles (ZEV), including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles by 2025 and 4.2 million ZEVs by 2030. • Continue ramp up of GHG stringency for all light-duty vehicles beyond 2025. • Reductions in GHGs from medium-duty and heavy-duty vehicles via the Phase 2 Medium and Heavy-Duty GHG Standards. • Innovative Clean Transit: Transition to a suite of innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new bus sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_x standard. • Last Mile Delivery: New regulation that would result in the use of low NO_x or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025. • Reduction in vehicle miles traveled (VMT), to be achieved in part by continued implementation of SB 375 and regional Sustainable Community Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy, but included in the document “Potential VMT Reduction Strategies for Discussion” in Appendix C.⁵⁹ 	Various
SB 1383*	Approve and Implement Short-Lived Climate Pollutant strategy ⁶⁰ to reduce highly potent GHGs	<ul style="list-style-type: none"> • 40 percent reduction in methane and hydrofluorocarbon (HFC) emissions below 2013 levels by 2030. • 50 percent reduction in anthropogenic black carbon emissions below 2013 levels by 2030. 	2030
California Sustainable Freight Action Plan ^{61*}	Improve freight efficiency, transition to zero emission technologies, and increase competitiveness of California’s freight system.	<ul style="list-style-type: none"> • Improve freight system efficiency by 25 percent by 2030. • Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030. 	2030
Post-2020 Cap-and-Trade Program	Reduce GHGs across largest GHG emissions sources	<ul style="list-style-type: none"> • Continue the existing Cap-and-Trade Program with declining caps to ensure the State’s 2030 target is achieved. 	
* These measures and policies are referred to as “known commitments.”			

57 SB 350 Clean Energy and Pollution Reduction Act of 2015 (De León, Chapter 547, Statutes of 2015). leginfo.legislature.ca.gov/faces/billNavClient.xhtml?billid=201520160SB350 This policy also includes increased demand response and PV.

58 CARB. 2016. 2016 Mobile Source Strategy. www.arb.ca.gov/planning/sip/2016sip/2016mobsrca.pdf

59 CARB. Potential State-Level Strategies to Advance Sustainable, Equitable Communities and Reduce Vehicle Miles of Travel (VMT)--for Discussion. www.arb.ca.gov/cc/scopingplan/meetings/091316/Potential%20VMT%20Measures%20For%20Discussion_9.13.16.pdf

60 CARB. 2016. Reducing Short-Lived Climate Pollutants in California. www.arb.ca.gov/cc/shortlived/shortlived.htm

61 State of California. California Sustainable Freight Action Plan website. www.casustainablefreight.org/

Table 2 summarizes the results of the modeling for the Reference Scenario and known commitments. Per SB 32, the 2030 limit is 260 MMTCO₂e. That is a limit on total GHG emissions in a single year. At approximately 389 MMTCO₂e, the Reference Scenario is expected to exceed the 2030 limit by about 129 MMTCO₂e.

Table 2 also compares the Reference Scenario 2030 emissions estimate of 389 MMTCO₂e to the 2030 target of 260 MMTCO₂e and the level of 2030 emissions with the known commitments, estimated to be 320 MMTCO₂e. And, in the context of a linear path to achieve the 2030 target, there is also a need to achieve cumulative emissions reductions of 621 MMTCO₂e from 2021 to 2030 to reach the 2030 limit. While there is no statutory limit on cumulative emissions, the analysis considers and presents some results in cumulative form for several reasons. It should be recognized that policies and measures may perform differently over time. For example, in early years, a policy or measure may be slow to be deployed, but over time it has greater impact. If you were to look at its performance in 2021 versus 2030, you would see that it may not seem important and may not deliver significant reductions in the early years, but is critical for later years as it results in greater reductions over time. Further, once GHGs are emitted into the atmosphere, they can have long lifetimes that contribute to global warming for decades. Policies that reduce both cumulative GHG emissions and achieve the single-year 2030 target provide the most effective path to reducing climate change impacts. A cumulative construct provides a more complete way to evaluate the effectiveness of any measure over time, instead of just considering a snapshot for a single year.

TABLE 2: 2030 MODELING GHG RESULTS FOR THE REFERENCE SCENARIO AND KNOWN COMMITMENTS

Modeling Scenario	2030 GHG Emissions (MMTCO ₂ e)	Cumulative GHG Reductions 2021–2030 (MMTCO ₂ e)	Cumulative Gap to 2030 Target (MMTCO ₂ e)
Reference Scenario (Business-as-Usual)	389	n/a	621
Known Commitments	320	385	236

As noted above, the known commitments are expected to result in emissions that are 60 MMTCO₂e above the target in 2030, and have a cumulative emissions reduction gap of about 236 MMTCO₂e. This means the known commitments do not decline fast enough to achieve the 2030 target. The remaining 236 MMTCO₂e of estimated GHG emissions reductions would not be achieved unless further action is taken to reduce GHGs. Consequently, for the Scoping Plan Scenario, the Post-2020 Cap-and-Trade Program would need to deliver 236 MMTCO₂e cumulative GHG emissions reductions from 2021 through 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved. Figure 7 illustrates the cumulative emissions reductions contributions of the known commitments and the Cap-and-Trade Program from 2021 to 2030.

Post-2020 Cap-and-Trade Program with Declining Caps

This measure would continue the Cap-and-Trade Program post-2020 pursuant to legislative direction in AB 398. The program is up and running and has a five-year-long record of auctions and successful compliance. In the face of a growing economy, dry winters, and the closing of a nuclear plant, it is delivering GHG reductions. This is not to say that California should continue on this road simply because the Cap-and-Trade Program is already in place. The analyses in this chapter, and the economic analysis in Chapter 3, clearly demonstrate that continuing the Cap-and-Trade Program through 2030 will provide the most secure, reliable, and feasible clean energy future for California—one that will continue to deliver crucial investments to improve the quality of life and the environment in disadvantaged communities.

Under this measure, funds would also continue to be deposited into the Greenhouse Gas Reduction Fund (GGRF) to support projects that fulfill the goals of AB 32, with AB 398 identifying a list of priorities for the Legislature to consider for future appropriations from GGRF. Investment of the Cap-and-Trade Program proceeds furthers the goals of AB 32 by reducing GHG emissions, providing net GHG sequestration, providing co-benefits, investing in disadvantaged communities and low-income communities, and supporting the long-term, transformative efforts needed to improve public and environmental health and

develop a clean energy economy. These investments support programs and projects that deliver major economic, environmental, and public health benefits for Californians. Importantly, prioritized investments in disadvantaged communities are providing a multitude of meaningful benefits to these communities some of which include increased affordable housing opportunities, reduced transit and transportation costs, access to cleaner vehicles, improved mobility options and air quality, job creation, energy cost savings, and greener and more vibrant communities.

Further, the Cap-and-Trade Program is designed to protect electricity and natural gas residential ratepayers from higher energy prices. The program includes a mechanism for electricity and natural gas utilities to auction their freely allocated allowances, with the auction proceeds benefiting ratepayers. The Climate Credit is a twice-annual bill credit given to investor-owned utility electricity residential customers. The total value of the Climate Credit for vintage 2013 auction allowances alone was over \$400 million. The first of these credits appeared on customer bills in April 2014.⁶² Currently, natural gas utilities are permitted to use a portion of their freely allocated allowances to meet their own compliance obligations; however, over time, they must consign a larger percentage of allowances and continue to provide the value back to customers.

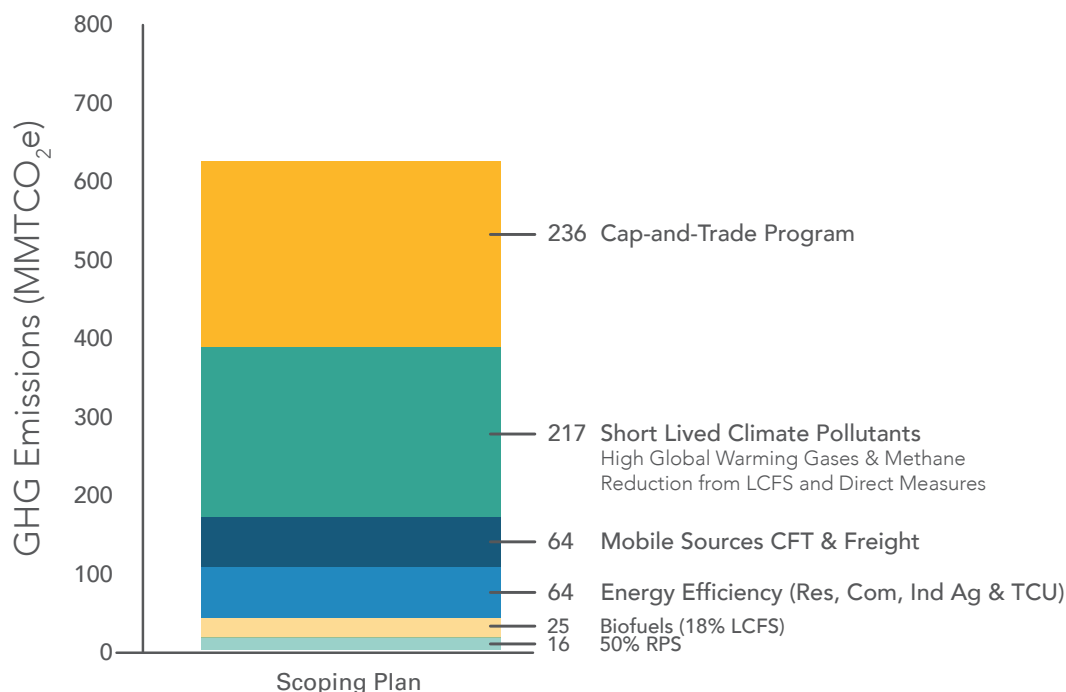
Additionally, under this measure, the State would preserve its current linkages with its Canadian partners and support future linkages with other jurisdictions, thus facilitating international action to address climate change. The high compliance rates with the Cap-and-Trade Program also demonstrate that the infrastructure and implementation features of the program are effective and understood by the regulated community. This measure also lends itself to integration with the Clean Power Plan requirements and is flexible to allow expansion to other sectors or regions.

In late 2017, CARB began evaluating changes to program design features for post-2020 in accordance with AB 398.⁶³ This includes changes to the offset usage limit, direction on allocation, two price containment points, and a price ceiling – which, if in the unlikely event were to be accessed, must result in GHG reductions by compensating for any GHG emissions above the cap, ensuring the environmental integrity of the program. Changes to conform to the requirements of AB 398 will be subject to a public process, coordinated with linked partners, and be part of a future rulemaking that would take effect by January 1, 2021.

62 www.arb.ca.gov/cc/capandtrade/allowanceallocation/edu-v2013-allowance-value-report.pdf

63 www.arb.ca.gov/cc/capandtrade/meetings/20171012/ct_presentation_11oct2017.pdf

FIGURE 7: SCOPING PLAN SCENARIO – ESTIMATED CUMULATIVE GHG REDUCTIONS BY MEASURE (2021–2030)⁶⁴



The Scoping Plan Scenario in Figure 7 represents an expected case where current and proposed GHG reduction policies and measures begin as expected and perform as expected, and technology is readily available and deployed on schedule. An Uncertainty Analysis was performed to examine the range of outcomes that could occur under the Scoping Plan policies and measures. The uncertainty in the following factors was characterized and evaluated:

- Economic growth through 2030;
- Emission intensity of the California economy;
- Cumulative emissions reductions (2021 to 2030) achieved by the prescriptive measures, including the known commitments; and
- Cumulative emissions reductions (2021 to 2030) that can be motivated by emission prices under the Cap-and-Trade Program.

The combined effects of these uncertainties are summarized in Figure 8. As shown in Figure 7, the Scoping Plan analysis estimates that the prescriptive measures will achieve cumulative emissions reductions of 385 MMTCO₂e, the Cap-and-Trade Program will achieve 236 MMTCO₂e, resulting in total cumulative emissions reductions of 621 MMTCO₂e. These values are again reflected in the bar on the left of Figure 8. The results of the Uncertainty Analysis are summarized in the three bars on the right of the figure as follows:

- The cumulative emissions reductions required to achieve the 2030 emission limit has the potential to be higher or lower than the Scoping Plan estimate. The uncertainty analysis simulates an average required emissions reductions of about 660 MMTCO₂e with a range of +130 MMTCO₂e.⁶⁵ This estimate and the range are shown in Figure 8 as the bar on the right. Notably, the estimate of the average required emissions reductions is 40 MMTCO₂e greater than the estimate in the Scoping Plan analysis.
- The prescriptive measures have the potential to underperform relative to expectations. Based on CARB staff assessments of the potential risk of underperformance of each measure, the average emissions reductions simulated to be achieved was 335 MMTCO₂e, or about 13 percent below the Scoping Plan estimate. The range for the performance of the measures was about +50 MMTCO₂e.

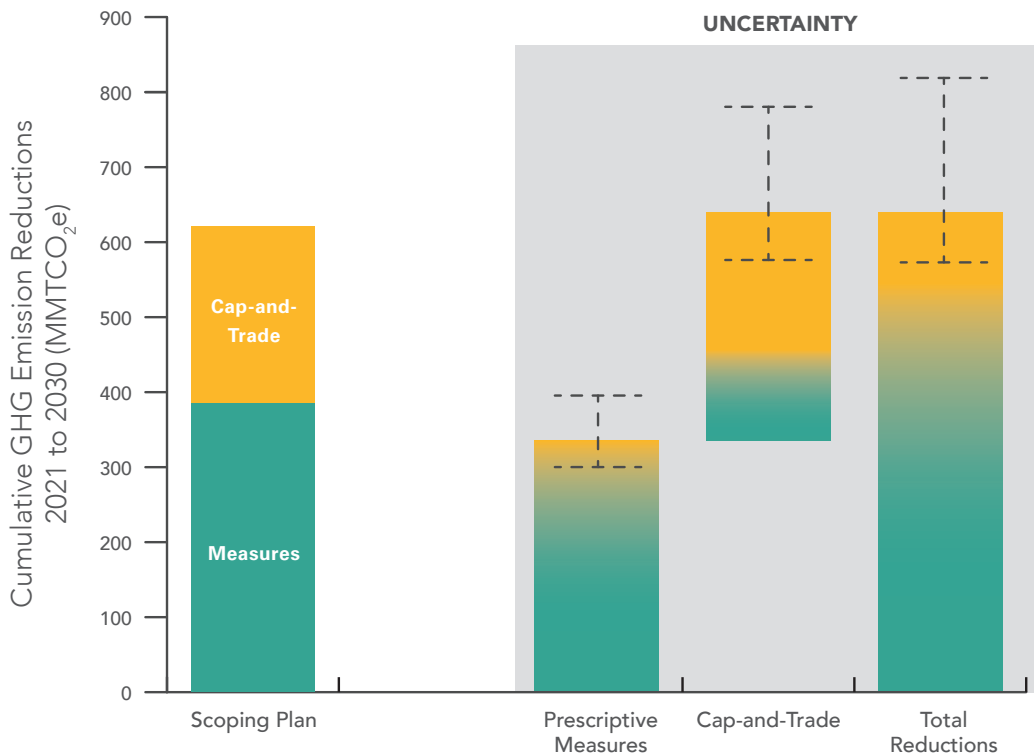
⁶⁴ The whole number values displayed in Figure 7 do not mathematically sum to 621 MMTCO₂e, consistent with the modeling results summary in Table 2. This is a result of embedded significant figures and rounding for graphic display purposes. Please refer to the corresponding PATHWAYS modeling data spreadsheets for details.

⁶⁵ The ranges presented are the 5th and 95th percentile observations in the Uncertainty Analysis. See Appendix E for details.

- These values for the potential reductions achieved by the measures are shown in the figure.
- The Cap-and-Trade program is designed to fill the gap in the required emissions reductions over and above what is achieved by the prescriptive measures. Because the total required emissions reductions are uncertain, and the emissions reductions achieved by the prescriptive measures are uncertain, the required emissions reductions from the Cap-and-Trade Program are also uncertain. The Uncertainty Analysis simulated the average emissions reductions achieved by the Cap-and-Trade Program at about 305 MMTCO₂e, or about 30 percent higher than the Scoping Plan estimate. The range was simulated to be about +120 MMTCO₂e. These values for the potential reductions achieved by the Cap-and-Trade Program are shown in the figure.

The Uncertainty Analysis provides insight into the range of potential emissions outcomes that may occur, and demonstrates that the Scoping Plan, with the Cap-and-Trade Program, is extremely effective in the face of uncertainty, assuring that the required emissions reductions are achieved (see Appendix E for more detail). The Uncertainty Analysis also indicates that the Cap-and-Trade Program could contribute a larger or smaller share of the total required cumulative emissions reductions than expected in the Scoping Plan analysis.

FIGURE 8: UNCERTAINTY ANALYSIS



While the modeling results provide estimates of the GHG reductions that could be achieved by the measures, the results also provide other insights and highlight the need to ensure successful implementation of each measure. The SLCP Strategy will provide significant reductions with a focus on methane and hydrofluorocarbon gases. To ensure the SLCP Strategy implementation is successful, it will be critical to ensure programs such as LCFS maintain incentives to finance the capture and use of methane as a transportation fuel—further reducing the State’s dependence on fossil fuels. The modeling also shows that actions on energy efficiency could provide the same magnitude of GHG emissions reductions as the mobile source measures, but each effort will provide different magnitudes of air quality improvements and cost-effectiveness as discussed in Chapter 3.

Another way to look at this scenario is to understand the trajectory of GHG reductions over time, relative to the 2030 target. Figure 9 provides the trajectory of GHG emissions modeled for the Scoping Plan Scenario. Again, this depicts a straight-line path to the 2030 target for discussion purposes, but in reality GHG emissions may be above or below the line in any given year(s).

FIGURE 9: SCOPING PLAN SCENARIO GHG REDUCTIONS

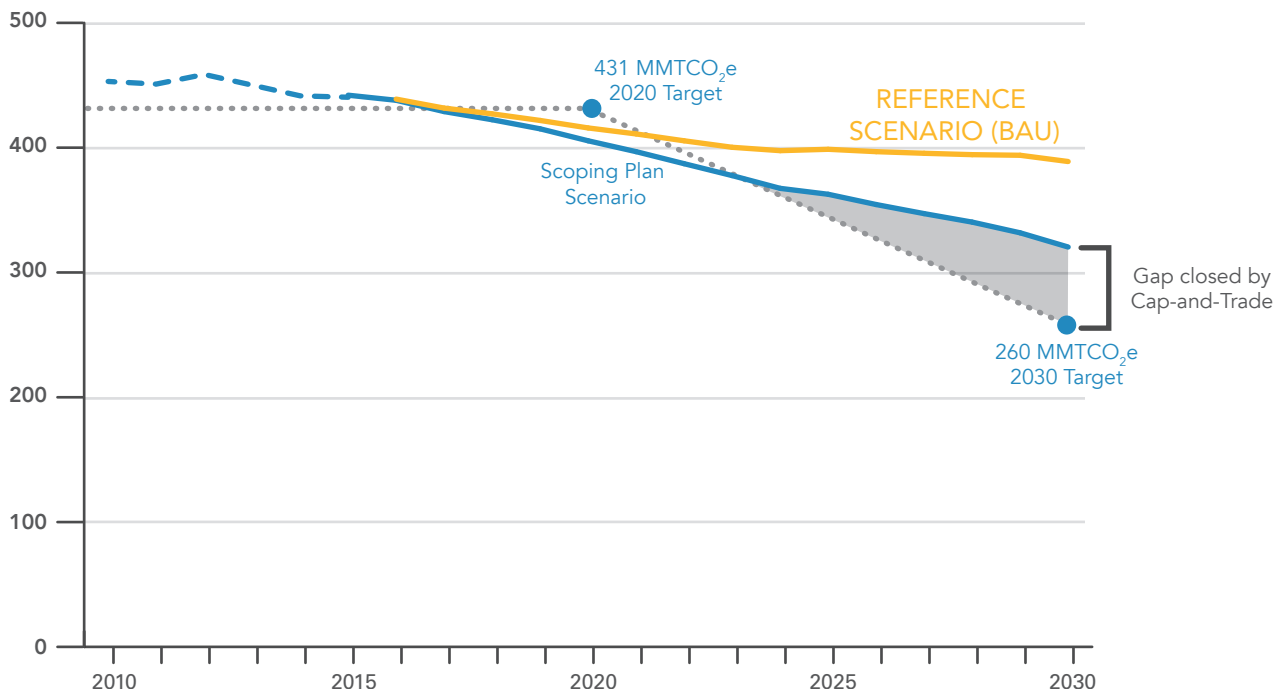


Figure 9 shows the Reference Scenario (yellow) and the version of the Scoping Plan Scenario that excludes the Cap-and-Trade Program (blue). Until 2023, the measures in the Scoping Plan Scenario constrain GHG emissions below the dotted straight line. After 2023, GHG emissions continue to fall, but at a slower rate than needed to meet the 2030 target. It is the Cap-and-Trade Program that will reduce emissions to the necessary levels to achieve the 2030 target. In this scenario, it is estimated that the known commitments will result in an emissions level of about 320 MMTCO₂e in 2030. Thus, for the Scoping Plan Scenario, the Cap-and-Trade Program would deliver about 60 MMTCO₂e in 2030 and ensure the 2030 target is achieved.

To understand how the Scoping Plan affects the main economic sectors, Table 3 provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030. This comparison helps to illustrate which sectors are reducing emissions more than others and where to focus additional actions to reduce GHGs across the entire economy.

TABLE 3: ESTIMATED CHANGE IN GHG EMISSIONS BY SECTOR (MMT_{CO₂E})

	1990	2030 Scoping Plan Ranges ⁶⁶	% change from 1990
Agriculture	26	24–25	-8 to -4
Residential and Commercial	44	38–40	-14 to -9
Electric Power	108	30–53 ⁶⁷	-72 to -51
High GWP	3	8–11 ⁶⁸	267 to 367
Industrial	98	83–90 ⁶⁹	-15 to -8
Recycling and Waste	7	8–9 ⁷⁰	14 to 29 ^{**}
Transportation (Including TCU)	152	103–111	-32 to -27
Natural Working Lands Net Sink*	-7 ^{***}	TBD	TBD
Sub Total	431	294–339	-32 to -21
Cap-and-Trade Program	n/a	34–79	n/a
Total	431	260	-40

* Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.
 ** The SLCP will reduce emissions in this sector by 40 percent from 2013 levels. However, the 2030 levels are still higher than the 1990 levels as emissions in this sector have grown between 1990 and 2013.
 *** This number reflects net results and is different than the intervention targets discussed in Chapter 4.

The sector ranges may change in response to how the sectors respond to the Cap-and-Trade Program. While the known commitments will deliver some reductions in each sector, the Cap-and-Trade Program will deliver additional reductions in the sectors it covers. Annual GHG reporting and the GHG inventory will track annual changes in emissions, and those will provide ongoing assessments of how each sector is reducing emissions due to the full complement of known commitments and the Cap-and-Trade Program, as applicable.

Scenario Modeling

There are a variety of models that can be used to model GHG emissions. For this Plan, the State is using the PATHWAYS model.⁷⁰ PATHWAYS is structured to model GHG emissions while recognizing the integrated nature of the industrial economic and energy sectors. For example, if the transportation sector adds more electric vehicles, PATHWAYS responds to reflect an energy demand increase in the electricity sector. However, PATHWAYS does not reflect any change in transportation infrastructure and land use demand associated with additional ZEVs on the road. The ability to capture a subset of interactive effects of policies and measures helps to provide a representation of the interconnected nature of the system and impacts to GHGs.

66 Unless otherwise noted, the low end of the sector range is the estimated emissions from the Scoping Plan Scenario and the high end adjusts the expected emissions by a risk factor that represents sector underperformance.

67 The high end of the electric power sector range is represented by the Scoping Plan Scenario, and the low end by enhancements and additional electricity sector measures such as deployment of additional renewable power, greater behind-the-meter solar PV, and additional energy efficiency. The electric power sector range provided in Table 3 will be used to help inform CARB’s setting of the SB 350 Integrated Resource Plan greenhouse gas emissions reduction planning targets for the sector. CARB, CPUC, and CEC will continue to coordinate on this effort before final IRP targets are established for the sector, load-serving entities, and publicly-owned utilities. State agencies will investigate the potential for and appropriateness of deeper electric sector reductions in light of the overall needs of the Scoping Plan to cost-effectively achieve the statewide GHG goals. Concurrently, CEC and CPUC are proceeding with their respective IRP processes using this range.

68 The sector emissions are anticipated to increase by 2030. As such, the high end of the sector range is the estimated emissions from the Scoping Plan Scenario and the low end adjusts the expected emissions by a risk factor that represents sector over performance.

69 This estimate does not account for the reductions expected in this sector from the Cap-and-Trade Program. The Cap-and-Trade line item includes reductions that will occur in the industrial sector.

70 CARB. 2016. AB 32 Scoping Plan Public Workshops. www.arb.ca.gov/cc/scopingplan/meetings/meetings.htm

At this time, PATHWAYS does not include a module for natural and working lands. As such, PATHWAYS cannot be used to model the natural and working lands sector, the interactive effects of policies aimed at the economic and energy sectors and their effect on land use or conditions, or the interactive effects of policies aimed at the natural environment and their impact on the economic and energy sectors. For this Plan, external inputs had to be developed for PATHWAYS to supply biofuel volumes. The natural and working lands sector is also being modeled separately as described in Chapter 4. Moving forward, CARB and other State agencies will work to integrate all the sectors into one model to fully capture interactive effects across both the natural and built environments.

Lastly, the PATHWAYS assumptions and results in this Plan show the significant action that the State must take to reach its GHG reduction goals. It is important to note that the modeling assumptions may differ from other models used by other State agencies. Modeling exercises undertaken in future regulatory proceedings may result in different measures, programs, and program results than those used in the modeling for this Scoping Plan. State agencies will engage on their specific policies and measure development processes separately from CARB Scoping Plan activities, in public forums to engage all stakeholders.

Uncertainty

Several types of uncertainty are important to understand in both forecasting future emissions and estimating the benefits of emissions reductions scenarios. In developing the Scoping Plan, we have forecast a Reference Scenario and estimated the GHG emissions outcome of the Scoping Plan using PATHWAYS. Inherent in the Reference Scenario modeling is the expectation that many of the existing programs will continue in their current form, and the expected drivers for GHG emissions such as energy demand, population growth, and economic growth will match our current projections. However, it is unlikely that the future will precisely match our projections, leading to uncertainty in the forecast. Thus, the single "reference" line should be understood to represent one possible future in a range of possible predictions. For the Scoping Plan Scenario, PATHWAYS utilized inputs that are assumptions external to the model. PATHWAYS was provided plausible inputs such as energy demand over time, the start years for specific policies, and the penetration rates of associated technologies. Each of the assumptions provided to PATHWAYS has some uncertainty, which is also reflected in the results. Thus, while the results presented in the Scoping Plan may seem precise due to the need for precision in model inputs, these results are estimates, and the use of ranges in some of the results is meant to capture that uncertainty.

Further, as noted in the November 7, 2016, 2030 Target Scoping Plan Workshop, "All policies have a degree of uncertainty associated with them."⁷¹ As this Scoping Plan is meant to chart a path to achieving the 2030 target, additional work will be required to fully design and implement any policies identified in this Scoping Plan. During the subsequent development of policies, CARB and other State agencies will learn more about technologies, cost, and how each industry works as a more comprehensive evaluation is conducted in coordination with stakeholders. Given the uncertainty around assumptions used in modeling, and in performance once specific policies are fully designed and implemented, estimates associated with the Scoping Plan Scenario are likely to differ from what actually occurs when the Scoping Plan is implemented. One way to mitigate for this risk is to develop policies that can adapt and increase certainty in GHG emissions reductions. Periodic reviews of progress toward achieving the 2030 target and the performance of specific policies will also provide opportunities for the State to consider any changes to ensure we remain on course to achieve the 2030 target. The need for this periodic review process was anticipated in AB 32, as it calls for updates to the Scoping Plan at least once every five years. Additional information on the uncertainty analyses conducted in the development of this Scoping Plan is located in Appendix E.

71 Bushnell, James. Economic Modeling and Environmental Policy Choice. PowerPoint. Department of Economics, University of California, Davis. www.arb.ca.gov/cc/scopingplan/meetings/110716/bushnellpresentation.pdf

Policy Analysis of Scoping Plan Scenario

The following key criteria were considered while evaluating potential policies beyond the known commitments. The results of the economic analysis (presented in Chapter 3) were also important in the design of this Scoping Plan.

- **Ensure the State achieves the 2030 target.** The strategy must ensure that GHG emissions reductions occur and are sufficient to achieve the 2030 target.
- **Provide air quality co-benefits.** An important concern for environmental justice communities is for any Scoping Plan to provide air quality co-benefits.
- **Prioritize rules and regulations for direct GHG reductions.** AB 197 requires CARB in developing this Scoping Plan to prioritize emissions reductions rules and regulations that result in direct emissions reductions at large stationary sources of GHG emissions sources and direct emissions reductions from mobile sources.
- **Provide protection against emissions leakage.** Require any policies to achieve the statewide limits to minimize emissions leakage to the extent possible. Emissions leakage can occur when production moves out-of-state, so there appears to be a reduction in California's emissions, but the production and emissions have just moved elsewhere. This loss in production may be associated with loss in jobs and decreases in the State's gross domestic product (GDP) and could potentially increase global GHG emissions if the production moves to a less efficient facility outside of California.
- **Develop greenhouse gas reduction programs that can be readily exported to other jurisdictions.** Currently, California's Cap-and-Trade Program is linked with Québec's program and is scheduled to link with Ontario's cap-and-trade program beginning in 2018. At the same time, California's ambitious policies such as the RPS, LCFS, and Advanced Clean Cars have resulted in other regions adopting similar programs.
- **Minimize costs and increase investment in disadvantaged and low-income communities, and low-income households.** Currently, Cap-and-Trade auction proceeds from the sale of State-owned allowances are appropriated for a variety of programs to reduce GHGs, and provide other environmental, health and economic benefits including job creation and economic development. Under AB 1550, a minimum of 25 percent of the proceeds are to be invested in projects located in and benefiting disadvantaged communities, with an additional minimum 10 percent to projects in low-income communities, and low-income households. It is important to understand if the strategy will require or result in funding to support these GHG reductions and associated benefits.
- **Avoid or minimize the impacts of climate change on public health by continuing reductions in GHGs.** Climate change has the potential to significantly impact public health, including increases in heat illness and death, air pollution-related exacerbation of cardiovascular and respiratory diseases, injury and loss of life due to severe storms and flooding, increased vector-borne and water-borne diseases, and stress and mental trauma due to extreme weather-related catastrophes.
- **Provide compliance flexibility.** Flexibility is important as it allows each regulated entity the ability to pursue its own path toward compliance in a way that works best for its business model. Flexibility also acknowledges that regulatory agencies may not have a complete picture of all available low-cost compliance mechanisms or opportunities even across the same sector. In addition, under AB 32 and AB 197, the strategy to reduce GHGs requires consideration of cost-effectiveness, which compliance flexibility provides.
- **Support the Clean Power Plan and other federal climate programs.** California will continue to support aggressive federal action, as well as to defend existing programs like the Clean Power Plan, which is the most prominent federal climate regulation applicable to stationary sources. The U.S. Supreme Court has repeatedly confirmed that federal greenhouse gas regulation must move forward under the federal Clean Air Act, so it is important to ensure that California's programs can support federal compliance as well. Although continuing litigation has stayed certain Clean Power Plan deadlines in the near term, and U.S. EPA has proposed to reconsider aspects of the rule as issued, the Clean Power Plan remains the law of the land. California is vigorously defending this important program, and is continuing to support federal climate regulation as is required by law. U.S. EPA also has a legal obligation to implement GHG controls for power plants, even if it proposes to alter the form of those controls in the future. Therefore, the Clean Power Plan and other federal efforts are important considerations for this Scoping Plan. With regard to the

Clean Power Plan, California power plants are expected to be within their limits as set forth by the State’s compliance plan, which was approved by CARB on July 27, 2017. However, the State still needs a mechanism to ensure the emissions for the covered electricity generating plants do not exceed the federal limits. This mechanism must be federally enforceable with regard to the affected power plants, and limit their emissions in accordance with the federal limit.

Table 4 uses the criteria listed above to assess the Scoping Plan Scenario. This assessment is based on CARB staff evaluation as well as the analyses described in Chapter 3.

TABLE 4: POLICY ASSESSMENT OF THE SCOPING PLAN

Criteria	Details
Ensure the State Achieves the 2030 Target	<ul style="list-style-type: none"> • Incorporates existing and new commitments to reduce emissions from all sectors • The Cap-and-Trade Program scales to ensure reductions are achieved, even if other policies do not achieve them. This is particularly critical given the uncertainty inherent in both CARB’s emission forecast and its estimate of future regulations.
Provide Air Quality Co-Benefits	<ul style="list-style-type: none"> • Reduced fossil fuel use and increased electrification (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) from policies such as the Mobile Source Strategy, enhanced LCFS and RPS, energy efficiency, and land conservation will likely reduce criteria pollutants and toxic air contaminants. • The Cap-and-Trade Program will ensure GHG emissions reductions within California that may reduce criteria pollutants and toxic air contaminants.
Prioritize Rules and Regulations for Direct GHG Reductions	<ul style="list-style-type: none"> • Advanced Clean Cars regulations require reduction in the light-duty vehicle sector. • Enhanced LCFS requires reductions in light-duty and heavy-duty transportation. • SB 350, RPS, and energy efficiency will reduce the need for fossil power generation. • The Cap-and-Trade Program constrains and reduces emissions across approximately 80 percent of California GHG emissions. • SB 1383 and the Short-lived Climate Pollutant Reduction Strategy require reductions in the agricultural, commercial, residential, industrial, and energy sectors.
Protect Against Emissions Leakage	<ul style="list-style-type: none"> • Free allowance allocation to minimize leakage, where supported by research.
Develop GHG Reduction Programs that can be Readily Exported to Other Jurisdictions	<ul style="list-style-type: none"> • Supports existing and future linkages, allows for larger GHG emissions reductions worldwide through collaborative regional efforts. • Provides leadership on how to integrate short-lived climate pollutants into the broader climate mitigation program.
Minimize Costs and Invest in Disadvantaged and Low-Income Communities, and Low-Income Households	<ul style="list-style-type: none"> • Continue to fund programs and projects that reduce GHGs and meaningfully benefit disadvantaged and low-income communities and low-income households through the Greenhouse Gas Reduction Fund.
Avoid or Minimize the Impacts of Climate Change on Public Health	<ul style="list-style-type: none"> • Reduces GHGs and provides leadership nationally and internationally for climate action. • Provides funding for programs such as home weatherization focused on disadvantaged communities, to mitigate potential cost impacts.
Compliance Flexibility	<ul style="list-style-type: none"> • Regulated sources self-identify and implement some GHG emissions reductions actions, beyond those already required to comply with additional prescriptive measures.
Support the Clean Power Plan and other Federal Climate Programs	<ul style="list-style-type: none"> • Post-2020 Cap-and-Trade Program can be used to comply with the Clean Power Plan.

Chapter 3

EVALUATIONS

Programs for Air Quality Improvement in California

For half a century, CARB has been a leader in measuring, evaluating, and reducing sources of air pollution that impact public health. Its air pollution programs have been adapted for national programs and emulated in other countries. Significant progress has been made in reducing diesel particulate matter (PM), which is a designated toxic air contaminant, and many other hazardous air pollutants. CARB partners with local air districts to address stationary source emissions and adopts and implements State-level regulations to address sources of criteria and toxic air pollution, including mobile sources. The key air quality strategies being implemented by CARB include the following:

- **State Implementation Plans (SIPs).**⁷² These comprehensive plans describe how an area will attain national ambient air quality standards by deadlines established by the federal Clean Air Act. SIPs are a compilation of new and previously submitted plans, programs, air district rules, State regulations, and federal controls designed to achieve the emissions reductions needed from mobile sources, fuels, stationary sources, and consumer products. On March 23, 2017, CARB adopted the Revised Proposed 2016 State Strategy for the SIP, describing the commitments necessary to meet federal ozone and PM_{2.5} standards over the next 15 years.
- **Diesel Risk Reduction Plan.**⁷³ The plan, adopted by CARB in September 2000, outlined 14 recommended control measures to reduce the risks associated with diesel PM and achieve a goal of 75 percent PM reduction by 2010 and 85 percent by 2020. Since 2000, CARB has adopted regulations to reduce smog-forming pollutants and diesel PM from mobile vehicles and equipment (e.g., trucks, buses, locomotives, tractors, cargo handling equipment, construction equipment, marine vessels, transport refrigeration units); stationary engines and portable equipment (e.g., emergency standby generators, prime generators, agricultural irrigation pumps, portable generators); and diesel fuels. Diesel PM accounts for approximately 60 percent of the current estimated inhalation cancer risk for background ambient air.⁷⁴ CARB staff continues to work to improve implementation and enforcement efforts and examine needed amendments to increase the community health benefits of these control measures.
- **Sustainable Freight Action Plan.**⁷⁵ This joint agency strategy was developed in response to Governor's Executive Order B-32-15 to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight system. The transition of the freight transport system is essential to support the State's economic development in the coming decades and reduce air pollution affecting many California communities.
- **AB 32 Scoping Plan.**⁷⁶ This comprehensive strategy is updated at least every five years and is designed to achieve the State's climate goals, which includes measures that achieve air pollutant reduction co-benefits.
- **AB 1807.**⁷⁷ AB 1807 (Tanner, 1983) created California's program to reduce exposure to air toxics. CARB uses a comprehensive process to prioritize the identification of substances that pose the greatest health threat and to develop airborne toxic control measures to reduce those exposures. CARB has reduced public exposure to toxic air contaminants (TACs) through control of motor vehicles, fuels, consumer products, and stationary sources, including adopting control measures for

72 CARB. 2016. California State Implementation Plans. www.arb.ca.gov/planning/sip/sip.htm

73 CARB. 2000. Final Diesel Risk Reduction Plan with Appendices. www.arb.ca.gov/diesel/documents/rrpapp.htm

74 CARB and California Air Pollution Control Officers Association. 2015. Risk Management Guidance for Stationary Sources of Air Toxics. July 23. www.arb.ca.gov/toxics/rma/rmgssat.pdf

75 CARB. 2016. Sustainable Freight Transport. www.arb.ca.gov/gmp/sfti/sfti.htm

76 CARB. 2016. AB 32 Scoping Plan. www.arb.ca.gov/cc/scopingplan/scopingplan.htm

77 CARB. 2014. California Air Toxics Program – Background. www.arb.ca.gov/toxics/background.htm

industrial sources (e.g., perchloroethylene in automotive products; hexavalent chromium from cooling towers, automotive coatings and plating; ethylene oxide from sterilizers and aerators; dioxins from medical waste incinerators; perchloroethylene from dry cleaners; cadmium from metal melting).

- **AB 2588 Air Toxics “Hot Spots” Program.**⁷⁸ The Hot Spots Program supplements the AB 1807 program by requiring a statewide air toxics inventory, identification of facilities having localized impacts, notification of nearby residents exposed to a significant health risk, and facility risk management plans to reduce those significant risks to acceptable levels.
- **AB 617 Community Air Protection Program.** Together with the extension of the Cap-and-Trade Program and in recognition of ongoing air quality challenges, California has committed to expand its criteria and toxic emissions reductions efforts through the pursuit of a multipronged approach to reduce localized air pollution and address community exposure, framed by recently-signed new legislation, AB 617 (C. Garcia, 2017). AB 617 outlines actions in five core areas, to be completed in the 2018 to 2020 timeframe, to reduce criteria and toxic emissions in the most heavily impacted areas of the State:
 - **Community-scale air monitoring.** Ambient air monitoring is needed to evaluate the status of the atmosphere compared to clean air standards and historical data. Monitoring helps identify and profile air pollution sources, assess emerging measurement methods, characterize the degree and extent of air pollution, and track progress of emissions reductions activities. AB 617 requires a statewide assessment of the current air monitoring network and identification of priority locations where community-level air monitoring will be deployed.
 - **Statewide Strategy to reduce air pollutants impacting communities.** CARB will identify locations with high cumulative exposure to criteria and toxic pollutants, the sources contributing to those exposures, and select locations that will be required to develop a community action plan to reduce pollutants to acceptable levels.
 - **Community Action Plans to reduce emissions in identified communities.** High priority locations identified in the Statewide Strategy will need to prepare a community action plan that includes emissions reductions targets, measures, and an implementation timeline. The plan will be submitted to CARB for review and approval.
 - **Accelerated retrofits and technology clearinghouse.** This effort will focus on stationary source equipment at Cap-and-Trade facilities that, as of 2007, have not been retrofitted with BARCT-level emission controls for nonattainment pollutants. In addition, creation of a statewide clearinghouse that identifies BACT and BARCT technologies and emission levels for criteria pollutants and TACs will be developed to assist the air districts with the BARCT evaluation and identify available emission controls for the Statewide Strategy.
 - **Direct reporting of facility emissions data to CARB.** An improved, standardized emission inventory promotes a better understanding of actual emissions and helps identify major emission sources, priorities for emissions reduction, and data gaps requiring further work. AB 617 requires CARB to establish a uniform emission inventory system for stationary sources of criteria pollutants and TACs. Data integration and transparency-related efforts are already required by AB 197 (E. Garcia, 2016) and underway at CARB, so this new task will build on these efforts. Moreover, it is clear that better data reporting is necessary to identify localized exposure risk to harmful criteria and toxic pollutants and actions to address any localized impacts must be taken as quickly as possible.

To support efforts to advance the State’s toxics program, the Office of Environmental Health Hazard Assessment (OEHHA) finalized a new health risk assessment methodology, *Air Toxics Hot Spots Program Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, on March 6, 2015, which updates the previous version of the guidance manual and reflects advances in the field of risk assessment along with explicit consideration of infants and children.⁷⁹ Subsequently, CARB, in collaboration with the California Air Pollution Control Officers Association (CAPCOA), finalized a *Risk Management Guidance for Stationary Sources of Air Toxics* for the air districts to use to incorporate OEHHA’s new health risk assessment methodology into their stationary source permitting and AB 2588 Air Toxics Hot Spots programs.⁸⁰

Together, all of these efforts will reduce criteria and toxics emissions in the State, with a focus on the most burdened communities. In particular, AB 617 responds to environmental justice concerns that the Cap-and-

78 CARB. 2016. AB 2588 Air Toxics “Hot Spots” Program. www.arb.ca.gov/ab2588/ab2588.htm

79 OEHHA. 2015. Notice of Adoption of Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments 2015. <http://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>

80 www.arb.ca.gov/toxics/rma/rmgssat.pdf

Trade Program does not force large GHG emitters to reduce air pollution which results in localized health impacts. Prior to the passage of AB 617, in February 2017, OEHHA published the first in a series of reports tasked with evaluating the impacts of California’s climate change programs on disadvantaged communities. The initial report focused on the Cap-and-Trade Program.⁸¹ Future reports will focus on the impacts of other climate programs on disadvantaged communities. The report confirms disadvantaged communities are frequently located close to large stationary and mobile sources of emissions. It also notes there are complexities in trying to correlate GHGs with criteria and toxics emissions across industry and within sectors, although preliminary data review shows there may be some poor to moderate correlations in specific instances. Lastly, the report noted, “...the emissions data available at this time do not allow for a conclusive analysis.”

Two additional reports were released during this same period of time: a California Environmental Justice Alliance (CEJA) report focused on identifying equity issues for disadvantaged communities resulting from the implementation of the Cap-and-Trade Program⁸² and a research paper examining the question of whether the Cap-and-Trade Program is causing more GHG emissions in disadvantaged communities when compared to other regions.⁸³ Both of these reports also confirmed that disadvantaged communities are disproportionately located close to large stationary and mobile sources of emissions. While the CEJA report noted, “Further research is needed before firm policy conclusions can be drawn from this preliminary analysis,” the research paper, in reference to GHGs, states, “By and large, the annual change in emissions across disadvantaged and non-disadvantaged communities look similar.”

While the reports do not provide evidence that implementation of the Cap-and-Trade Program is contributing to increased local air pollution, they do underscore the need to use all of the tools (e.g., enhanced enforcement, new regulations, tighter permit limits) available to the State and local agencies to achieve further emissions reductions of toxic and criteria pollutants that are impacting community health. Importantly, AB 617 provides a new framework and tools for CARB, in collaboration with local air districts, to deploy focused monitoring and ensure criteria and toxics emissions reductions at the State’s largest GHG emitters.

AB 197 Measure Analyses

This section provides the required AB 197 estimates for the measures evaluated in this Scoping Plan. These estimates provide information on the relative impacts of the evaluated measures when compared to each other. To support the design of a suite of policies that result in GHG reductions, air quality co-benefits, and cost-effective measures, it is important to understand if a measure will increase or reduce criteria pollutants or toxic air contaminant emissions, or if increasing stringency at additional costs yields few additional GHG reductions. To this end, AB 197 (E. Garcia, Chapter 250, Statutes of 2016) requires the following for each potential reduction measure evaluated in any Scoping Plan update:

- The range of projected GHG emissions reductions that result from the measure.
- The range of projected air pollution reductions that result from the measure.
- The cost-effectiveness, including avoided social costs, of the measure.

As the Scoping Plan was developed, it was important to understand if any of the proposed policies or measures would increase criteria pollutant or toxic air contaminant emissions. Note the important caveats around some of the estimates; they must be considered when using the information in the tables below for purposes other than as intended.

Estimated Emissions Reductions for Evaluated Measures

For many of the existing programs with known commitments, such as the Mobile Source Strategy, previous analyses provide emission factors or other methods for estimating the impacts required by AB 197. Where available, these values were used. In some cases, estimates are based on data from other sources, such as the California Public Utilities Commission (CPUC) Renewables Portfolio Standard Calculator. For newly proposed measures, assumptions were required to estimate the values. Consequently, the estimates for the newly proposed measures have substantial uncertainty. The uncertainty in the impacts of these measures would be reduced as the measures are defined in greater detail during the regulatory processes that are undertaken to

81 <https://oehha.ca.gov/media/downloads/environmental-justice/report/oehhaab32report020217.pdf>

82 <http://dornsife.usc.edu/PERE/enviro-equity-CA-cap-trade>

83 https://www.dropbox.com/s/se3ibxkv8t4at8g/Meng_CA_EJ.pdf?dl=1

define and adopt the programs. For example, as a measure is developed in detail, ways to obtain additional co-pollutant reductions or avoid co-pollutant increases may be identified and evaluated.

Table 5 provides the estimates for the measures evaluated during the development of the Scoping Plan. Based on the estimates below, these measures are expected to provide air quality benefits. The table also provides important context, limitations, and caveats about the values. As shown, the table includes criteria pollutant and diesel PM estimates. As mentioned in the Diesel Risk Reduction Plan, diesel PM accounts for 60 percent of the current estimated inhalation cancer risk for background ambient air. As we do not have direct modeling results for criteria and toxic pollutant estimates from PATHWAYS, we are estimating air quality benefits by using reductions in GHGs to assign similar reductions for criteria and toxic pollutants. By assigning an arbitrary 1:1 relationship in changes between GHGs and criteria and toxic pollutants, the air quality reductions likely overestimate the actual reductions from implementation of the measures. As noted in the OEHHA report, the exact relationship between GHGs and air pollutants is not clearly understood at this time. Moving forward, CARB will continue to assess the nature of the exact relationship between GHGs and criteria and toxics emissions. All estimates in Table 5 have some inherent uncertainty. The table allows for assessing measures against each other and should not be used for other purposes without understanding the limitations on the how the air quality values are derived.

Table 6 provides a summary of the total estimated emissions reductions for the Scoping Plan Scenario as outlined in Table 1. Table 6 was developed by adding the estimated emissions reductions for all of the measures included within the Scoping Plan Scenario in Table 1. More detail on the estimates for the Scoping Plan Scenario, as well as the specific measures included in each of the other four alternative scenarios can be found in Appendix G. In 2030, the Scoping Plan scenario and alternatives will provide comparable GHG and air quality reductions. When there is a range, the measure or policy should be designed to maximize the benefit to the extent possible.

TABLE 5: RANGES OF ESTIMATED AIR POLLUTION REDUCTIONS BY POLICY OR MEASURE IN 2030

Measure	Range of NO _x Reductions (Tons/Day)	Range of VOC Reductions (Tons/Day)	Range of PM _{2.5} Reductions (Tons/Day)	Range of Diesel PM Reductions (Tons/Day)
50 percent RPS	~0.5	<0.1	~0.4	< 0.01
Mobile Sources CTF and Freight	51–60	4.6–5.5	~1.1	~0.2
18 percent Carbon Intensity Reduction Target for LCFS - Liquid Biofuels*	3.5–4.4	0.5–0.6	0.4–0.6	~0.5
Short-Lived Climate Pollutant Strategy	–	–	–	–
2x additional achievable energy efficiency in the 2015 Integrated Energy Policy Report (IEPR)	0.4–0.5	0.5–0.7	< 0.1	< 0.01
Cap-and-Trade Program	A	A	A	4–9

* LCFS estimates include estimates of the NO_x and PM_{2.5} tailpipe benefits limited to renewable diesel consumed in the off-road sector.

– CARB is evaluating how to best estimate these values. Criteria and toxic values are shown in tons per day, as they are episodic emissions events with residence times of a few hours to days, unlike GHGs, which have atmospheric residence times of decades.

A Due to the inherent flexibility of the Cap-and-Trade Program, as well as the overlay of other complementary GHG reduction measures, the mix of compliance strategies that individual facilities may use is not known. However, based on current law and policies that control industrial and electricity generating sources of air pollution, and expected compliance responses, CARB believes that emissions increases at the statewide, regional, or local level due to the regulation are not likely. A more stringent post-2020 Cap-and-Trade Program will provide an incentive for covered facilities to decrease GHG emissions and any related emissions of criteria and toxic pollutants. Please see CARB’s Co-Pollutant Emissions Assessment for a more detailed evaluation of a cap-and-trade program and associated air emissions impacts: www.arb.ca.gov/regact/2010/capandtrade10/capv6app.pdf

NO_x = nitrogen oxides; VOC = volatile organic compound

Important: These estimates assume a 1:1 relationship between changes in GHGs, criteria pollutants, and toxic air contaminant emissions, and it is unclear whether that is ever the case. The values should not be considered estimates of absolute changes for other analytical purposes and only allow for comparison across measures in the table. The values are estimates that represent current assumptions of how programs may be implemented; actual impacts may vary depending on the design, implementation, and performance of the policies and measures. The table does not show interactions between measures, such as the relationship with increased transportation

electrification and associated increase in energy demand for the electricity sector. The measures in the Scoping Plan Scenario are shown in bold font in the table below. Additional details, including GHG reductions, are available in Appendix G.

TABLE 6: SUMMARY OF RANGES OF ESTIMATED AIR POLLUTION REDUCTIONS FOR THE SCOPING PLAN SCENARIO IN 2030

Scenario	Range of NO _x Reductions (Tons/Day)	Range of VOC Reductions (Tons/Day)	Range of PM _{2.5} Reductions (Tons/Day)	Range of Diesel PM Reductions (Tons/Day)
Scoping Plan Scenario	48–73	5.1–7.3	1.4–2.4	5–10

The total estimates for air pollution reductions provided in this table for the Scoping Plan Scenario are estimated by adding the air pollution benefits for the subset of individual measures examined in Table 5 and included in the Scoping Plan Scenario described in Table 1, and scaled by a risk adjustment factor to capture interactive effects and risks of under/over achieving on air pollution reductions. Appendix G includes details of the specific measures in the Scoping Plan Scenario and Alternatives. **All caveats in Table 5 apply to air quality estimates in this table.**

Estimated Social Costs of Evaluated Measures

Consideration of the social costs of GHG emissions is a requirement in AB 197, including evaluation of the avoided social costs for measures within this Scoping Plan.⁸⁴ Social costs are generally defined as the cost of an action on people, the environment, or society and are widely used to evaluate the impact of regulatory actions. Social costs do not represent the cost of abatement or the cost of GHG reductions, rather social costs estimate the harm that is avoided by reducing GHGs.

Since 2008, federal agencies have been incorporating the social costs of GHGs, including carbon dioxide, methane, and nitrous oxide into the analysis of their regulatory actions. Agencies including the U.S. Environmental Protection Agency (U.S. EPA), Department of Transportation (DOT), and Department of Energy (DOE) are subject to Executive Order 12866, which directs agencies “to assess both the costs and benefits of the intended regulation...”.⁸⁵ In 2007, the National Highway Transportation Safety Administration (NHTSA) was directed by the U.S. 9th Circuit Court of Appeals to include the social cost of carbon in a regulatory impact analysis for a vehicle fuel economy rule. The Court stated that “[w]hile the record shows that there is a range of values, the value of carbon emissions reduction is certainly not zero.”⁸⁶

In 2009, the Council of Economic Advisors and the Office of Management and Budget convened the Interagency Working Group on the Social Cost of Greenhouse Gases⁸⁷ (IWG) to develop a methodology for estimating the social cost of carbon (SC-CO₂). This methodology relied on a standardized range of assumptions and could be used consistently when estimating the benefits of regulations across agencies and around the world. The IWG, comprised of scientific and economic experts, recommended the use of SC-CO₂ values based on three integrated assessment models (IAMs) developed over decades of global peer-reviewed research.⁸⁸

In this Scoping Plan, CARB utilizes the current IWG supported SC-CO₂ values to consider the social costs of actions to reduce GHG emissions. This approach is in line with Executive Orders including 12866 and the OMB Circular A-4 of September 17, 2003, and reflects the best available science in the estimation of the socio-economic impacts of carbon.⁸⁹ CARB is aware that the current federal administration has recently withdrawn certain social cost of carbon reports as no longer representative of federal governmental policy.⁹⁰ However, this determination does not call into question the validity and scientific integrity of federal social

84 AB 197 text available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB197.

85 https://www.reginfo.gov/public/jsp/Utilities/EO_12866.pdf

86 Center for Biological Diversity v National Highway Traffic Safety Administration 06-71891 (9th Cir, November 15 2007)

87 Originally titled the Interagency Working Group on the Social Cost of Carbon, the IWG was renamed in 2016.

88 Additional technical detail on the IWG process is available in the Technical Updates of the Social Cost of Carbon for Regulatory Impact Analysis – Under Executive Order 12866. Iterations of the Updates are available at: <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf>, <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-tds-final-july-2015.pdf>, and https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc_tsd_final_clean_8_26_16.pdf.

89 OMB circular A-4 is available at: <https://www.transportation.gov/sites/dot.gov/files/docs/OMB%20Circular%20No.%20A-4.pdf>.

90 See Presidential Executive Order, March 28, 2017, sec. 5(b).

cost of carbon work, or the merit of independent scientific work. Indeed, the IWG’s work remains relevant, reliable, and appropriate for use for these purposes.

The IWG describes the social costs of carbon as follows:

The social cost of carbon (SC-CO₂) for a given year is an estimate, in dollars, of the present discounted value of the future damage caused by a 1-metric ton increase in carbon dioxide (CO₂) emissions into the atmosphere in that year, or equivalently, the benefits of reducing CO₂ emissions by the same amount in that year. The SC-CO₂ is intended to provide a comprehensive measure of the net damages – that is, the monetized value of the net impacts – from global climate change that result from an additional ton of CO₂.

These damages include, but are not limited to, changes in net agricultural productivity, energy use, human health, property damage from increased flood risk, as well as nonmarket damages, such as the services that natural ecosystems provide to society. Many of these damages from CO₂ emissions today will affect economic outcomes throughout the next several centuries.⁹¹

Table 7. presents the range of IWG SC-CO₂ values used in regulatory assessments including this Scoping Plan.⁹²

TABLE 7: SC-CO₂, 2015-2030 (IN 2007 \$ PER METRIC TON)

Year	5 Percent Discount Rate	3 Percent Discount Rate	2.5 Percent Discount Rate
2015	\$11	\$36	\$56
2020	\$12	\$42	\$62
2025	\$14	\$46	\$68
2030	\$16	\$50	\$73

The SC-CO₂ is year specific, that is, the IAMs estimate the environmental damages from a given year in the future and discount the value of the damages back to the present. For example, the SC-CO₂ for the year 2030 represents the value of climate change damages from a release of CO₂ in 2030 discounted back to today. The SC-CO₂ increases over time as systems become stressed from the aggregate impacts of climate change and future emissions cause incrementally larger damages. Table 7 presents the SC-CO₂ across a range of discount rates – or the value today of preventing environmental damages in the future. A higher discount rate decreases the value placed on future environmental damages. This Scoping Plan utilizes the IWG standardized range of discount rates, from 2.5 to 5 percent to represent varying valuation of future damages.

The SC-CO₂ is highly sensitive to the discount rate. Higher discount rates decrease the value today of future environmental damages. This Scoping Plan utilizes the IWG standardized range of discount rates, from 2.5 to 5 percent to represent varying valuation of future damages. The value today of environmental damages in 2030 is higher under the 2.5 percent discount rate compared to the 3 or 5 percent discount rate, reflecting the trade-off of consumption today and future damages. The IWG estimates the SC-CO₂ across a range of discount rates that encompass a variety of assumptions regarding the correlation between climate damages and consumption of goods and is consistent with OMB’s Circular A-4 guidance.⁹³

There is an active discussion within government and academia about the role of SC-CO₂ in assessing regulations, quantifying avoided climate damages, and the values themselves. In January 2017, the National Academies of Sciences, Engineering, and Medicine (NAS) released a report examining potential approaches for a comprehensive update to the SC-CO₂ methodology to ensure resulting cost estimates reflect the best available science. The NAS review did not modify the estimated values of the SC-CO₂, but evaluated the models, assumptions, handling of uncertainty, and discounting used in the estimating of the SC-CO₂. The report titled, “Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide,” recommends near-term improvements to the existing IWG SC-CO₂ as well as a long-term strategy to more comprehensive updates.⁹⁴ The State will continue to follow updates to the IWG SC-CO₂, including changes

91 From The National Academies, Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide, 2017, available at: <http://www.nap.edu/24651>

92 The SC-CO₂ values as of July 2015 are available at: <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-tsd-final-july-2015.pdf>

93 The National Academies, Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide, 2017, available at: <http://www.nap.edu/24651>.

94 The National Academies, Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide, 2017, available at:

outlined in the NAS report, and incorporate appropriate peer-reviewed modifications to estimates based on the latest available data and science.

It is important to note that the SC-CO₂, while intended to be a comprehensive estimate of the damages caused by carbon globally, does not represent the cumulative cost of climate change and air pollution to society. There are additional costs to society outside of the SC-CO₂, including costs associated with changes in co-pollutants, the social cost of other GHGs including methane and nitrous oxide, and costs that cannot be included due to modeling and data limitations. The IPCC has stated that the IWG SC-CO₂ estimates are likely underestimated due to the omission of significant impacts that cannot be accurately monetized, including important physical, ecological, and economic impacts.⁹⁵ CARB will continue engaging with experts to evaluate the comprehensive California-specific impacts of climate change and air pollution.

The Social Cost of GHG Emissions

Social costs for methane (SC-CH₄) and nitrous oxide (SC-N₂O) have also been developed using methodology consistent with that used in estimating the IWG SC-CO₂. These social costs have also been endorsed by the IWG and have been used in federal regulatory analyses.⁹⁶ Along with the SC-CO₂, the State also supports the use of the SC-CH₄ and SC-N₂O in monetizing the impacts of GHG emissions.

While the SC-CO₂, SC-CH₄, and SC-N₂O provide metrics to account for the social costs of climate change, California will continue to analyze ways to more comprehensively identify the costs of climate change and air pollution to all Californians. This will include following updates to the IWG methodology and social costs of GHGs and incorporating the SC-CO₂, SC-CH₄, and SC-N₂O into regulatory analyses.

Table 9 presents the estimated social cost for each policy or measure considered in the development of the Scoping Plan in 2030. For each measure or policy, Table 9 includes the range of the IWG SC-CO₂ values that result from the anticipated range of GHG reductions in 2030 presented in Appendix G. The SC-CO₂ range is obtained using the IWG SC-CO₂ values in 2030 at the 2.5, 3, and 5 percent discount rates. These values (of \$16 using the 5 percent discount rate, \$50 using the 3 percent discount rate, and \$73 using the 2.5 percent discount rate) are translated into 2015 dollars and multiplied across the range of estimated reductions by measure in 2030 to estimate the value of avoided social costs from each measure in that year.⁹⁷

Implementation of the SLCP Strategy will result in reduction of a variety of GHGs, including methane and HFCs, which reported in carbon dioxide equivalent (CO₂e). While there is no social cost of CO₂e, the avoided damages associated with the methane reductions outlined in the SLCP Strategy are estimated in Table 9 using the IWG SC-CH₄ as presented in Table 8.⁹⁸

TABLE 8: SC-CH₄, 2015-2030 (IN 2007\$ PER METRIC TON)

Year	5 Percent Discount Rate	3 Percent Discount Rate	2.5 Percent Discount Rate
2015	\$450	\$1000	\$1400
2020	\$540	\$1200	\$1600
2025	\$650	\$1400	\$1800
2030	\$760	\$1600	\$2000

The range of SC-CH₄ is obtained using the IWG SC-CH₄ values in 2030 at the 2.5, 3, and 5 percent discount rates. The SC-CH₄ values (e.g., \$760 using the 5 percent discount rate, \$1,600 using the 3 percent discount rate, and \$2,000 using the 2.5 percent discount rate) are translated into 2015 dollars and multiplied across the range of estimated methane reductions in 2030 to estimate the value of climate benefits from the SLCP

<http://www.nap.edu/24651>

95 https://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch3s3-5-3-3.html

96 More information is available at: https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/august_2016_sc_ch4_sc_n2o_addendum_final_8_26_16.pdf

97 The IWG SC-CO₂ values are in 2007 dollars. In 2015 dollars, \$16, \$50, and \$73 in 2007 translates to about \$18, \$57, and \$83, respectively, based on the Bureau of Labor Statistics GDP Series Table 1.1.4.

98 https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/august_2016_sc_ch4_sc_n2o_addendum_final_8_26_16.pdf

Strategy.⁹⁹ As the social cost associated with the SLCP Strategy does not include the impact associated with non-methane reductions, Table 9 underestimates the avoided social costs of this Scoping Plan as calculated using the IWG valuations.

As this Scoping Plan is a suite of policies developed to reduce GHGs to a specific level in 2030, any alternative scenario that also achieves the 2030 target (with the same proportion of carbon dioxide and methane reductions) will have the same avoided social cost, as estimated using the IWG social cost of GHGs, for the single year 2030. The social costs of alternatives could vary if the 2030 target is achieved with vastly different ratios of carbon dioxide to methane reductions. However, all alternatives in this Scoping Plan are anticipated to achieve the same proportion of carbon dioxide and methane reductions and will therefore all have the same estimated avoided social damage or social cost. This social cost, as estimated in 2030 using the IWG SC-CO₂ and SC-CH₄, ranges from \$1.9 to \$11.2 billion using the 2.5 to 5 percent discount rates, and is estimated at \$5.0 to \$7.8 billion using the 3 percent discount rate. For example, in Table 9 the CH₄ reductions for the SCLP strategy are about 1 MMTCH₄. That value is multiplied by the 2030 SC-CH₄ values in Table 8 for the 2030 values at the 2.5 and 5 percent discount rates to get a range of \$860 to \$2,260 in 2015 dollars.

⁹⁹ The IWG.SC-CH₄ values are in 2007 dollars. In 2015 dollars, the range of SC-CH₄ translates to about \$858, \$1,807, and \$2,259, for the 5 percent, 3 percent, and 2.5 percent discount rates, respectively. These values are based on the Bureau of Labor Statistics GDP Series Table 1.1.4.

TABLE 9: ESTIMATED SOCIAL COST (AVOIDED ECONOMIC DAMAGES) OF POLICIES OR MEASURES CONSIDERED IN THE 2017 SCOPING PLAN DEVELOPMENT[#]

Measure (Measures in bold are included in the Scoping Plan)	Range of Social Cost of Carbon \$ million USD (2015 dollars)**
50 percent Renewables Portfolio Standard (RPS)	\$55–\$250
Mobile Sources CTF and Freight	\$200–\$1,080
18 percent Carbon Intensity Reduction Target for LCFS -Liquid Biofuels	\$70–\$330
Short-Lived Climate Pollutant Strategy	\$860–\$2,260 (SC-CH ₄)
2x additional achievable energy efficiency in the 2015 IEPR	\$125–\$750
Cap-and-Trade Program	\$610–\$6,560
10 percent incremental RPS and additional 10 GW behind-the-meter solar PV*	\$250–\$1,160
25 percent Carbon Intensity Reduction Target for LCFS and a Low-Emission Diesel Standard - Liquid Biofuels*	\$90–\$415
20 percent Refinery	\$55–\$500
30 percent Refinery	\$20–\$250
25 percent Industry	\$20–\$415
25 percent Oil and Gas	\$35–\$330
5 percent Increased Utilization of RNG (core and non-core)	\$35–\$165
Mobile Source Strategy (CTF) with Increased ZEVs in South Coast and early retirement of LDVs with more efficient LDVs*	\$55–\$500
2.5x additional achievable energy efficiency in the 2015 IEPR, electrification of buildings (heat pumps and res. electric stoves) and early retirement of HVAC*	\$70–\$580
Carbon Tax	\$775–\$8,300
All Cap-and-Trade	\$700–\$6,890
Cap-and-Tax	\$775–\$8,300
Scoping Plan Scenario SC-CO ₂	\$1,060–\$8,970
Scoping Plan Scenario SC-CH ₄	\$860–\$2,260
Scoping Plan Scenario (Total)	\$1,920–\$11,230

Note: All values are rounded. The values for SC-CO₂ and SC-CH₄ in 2030 are presented in Tables 7 and 8.

* Where enhancements have been made to a measure or policy, the ranges in emissions reductions are incremental to the original measure. For example, the ranges for the 25 percent LCFS are incremental to the emissions ranges for the 18 percent LCFS.

Measures included in the Scoping Plan and the All Cap-and-Trade measure reflect emissions reductions from modeling changes after passage of AB 398. Emissions reductions from all other measures reflect modeling completed prior to passage of AB 398. See Appendix G for additional details.

** All values have been rounded to the nearest 0 or 5.

~ Some measures do not show a significant change in 2030 when there is an incremental increase in measure stringency or when modeling uncertainty was factored.

Social Costs of GHGs in Relation to Cost-Effectiveness

AB 32 includes a requirement that “rules and regulations achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions.”¹⁰⁰ Under AB 32, cost-effectiveness means the relative cost per metric ton of various GHG reduction strategies, which is the traditional cost metric associated with emission control. In contrast, the SC-CO₂, SC-CH₄, and SC-N₂O are estimates of the economic benefits, and not the cost of reducing GHG emissions.

There may be technologies or policies that do not appear to be cost-effective when compared to the SC-CO₂, SC-CH₄, and SC-N₂O associated with GHG reductions. However, these technologies or policies may result in other benefits that are not reflected in the IWG social costs. For instance, the evaluation of social costs might include health impacts due to changes in local air pollution that result from reductions in GHGs, diversification of the portfolio of transportation fuels (a goal outlined in the LCFS) and reductions in criteria pollutant emissions from power plants (as in the RPS).

Estimated Cost Per Metric Ton by Measure

AB 197 also requires an estimation of the cost-effectiveness of the potential measures evaluated for the Scoping Plan. The values provided in Table 10 are estimates of the cost per metric ton of estimated reductions for each measure in 2030. To capture the fuel and GHG impacts of investments made from 2021 through 2030 to meet the 2030 GHG goal, the table also includes an evaluation of the cost per metric ton based on the cumulative GHG emissions reductions and cumulative costs or savings for each potential measure from 2021 through 2030. While it is important to understand the relative cost effectiveness of measures, the economic analysis presented in Appendix E provides a more comprehensive analysis of how the Scoping Plan and alternative scenarios affect the State’s economy and jobs.

The cost (or savings) per metric ton of CO₂e reduced for each of the measures is one metric for comparing the performance of the measures. Additional factors beyond the cost per metric ton that could be considered include continuity with existing laws and policies, implementation feasibility, contribution to fuel diversity and technology transformation goals, as well as health and other benefits to California. These considerations are not reflected in the cost per ton metric below.

Because many of the measures interact with each other, isolating the cost and GHG savings of an individual measures is analytically challenging. For example, the performance of the renewable electricity measure impacts the GHG savings and cost per ton associated with increasing the use of electric vehicles. Likewise, the increased use of electric vehicles may increase flexible loads on the electric system, enabling increased levels of renewable electricity to be achieved more cost effectively. Both the renewable electricity measure and the increased use of electric vehicles affect the cost of meeting the Low-Carbon Fuel Standard.

For most of the measures shown in Table 10, the 2030 cost per metric ton is isolated from the other measures by performing a series of sensitivity model runs in the California PATHWAYS model. This cost per metric ton is calculated as the difference in the 2030 annualized cost (or savings) with and without the measure. For the measures in the Scoping Plan Scenario, the analysis starts with the Scoping Plan Scenario PATHWAYS estimates, and then costs and emissions are recalculated with each measure removed individually. For measures included in the No Cap-and-Trade Scenario, the approach starts with the No Cap-and-Trade Scenario PATHWAYS estimates and then each measure is removed. Using this approach, the incremental impact on GHG emissions and costs for each measure is calculated. The incremental cost in 2030 is divided by the incremental GHG emission impact to calculate the cost per ton in 2030.

The same approach of removing each measure individually is used to estimate the incremental cost and emission impacts of each measure for the period 2021 to 2030. For each measure, its annual incremental costs from 2021 to 2030 are calculated and then discounted to 2021 using the discount rate used in PATHWAYS to levelize capital costs over the life of equipment. As a result, the discounted incremental cost of each measure is the total investment required from 2021 to 2030 to achieve each measure’s emissions reductions from 2021 to 2030 (including both incremental capital costs and incremental fuel savings/ expenditures). This discounted cost for each measure was divided by its cumulative emissions reductions from 2021 to 2030 to calculate a cost per ton for the measure for the period. A second calculation was also made that divides each measure’s discounted cost by its discounted emissions reductions from 2021 to 2030. The

100 www.arb.ca.gov/cc/docs/ab32text.pdf

same discount rate is used to discount both incremental costs and emissions in this approach. The estimates are presented in the table below.

Costs that represent transfers within the state, such as incentive payments for early retirement of equipment, are not included in this California total cost metric. The cost ranges shown below represent some of the uncertainty inherent in estimating this metric. The details of how the ranges for each measure were estimated are described in the footnotes below. All cost estimates have been rounded representing further uncertainty in individual values.

It is important to note that this cost per metric ton does not represent an expected market price value for carbon mitigation associated with these measures. In addition, the single year (2030) values and the estimates that encompass 2021 to 2030 do not capture the fuel savings or GHG reductions associated with the full economic lifetime of measures that have been implemented by 2030, but whose impacts extend beyond 2030. The estimates also do not capture the climate or health benefits of the GHG mitigation measures. Table 10 also notes the measures for which sources other than the PATHWAYS model were used to develop estimates of the cost per metric ton. The estimates in the table indicate that the relative cost of the measures is reasonably consistent across the different measures of cost per metric ton. Measures that are relatively less costly using the 2030 cost per metric ton are also less costly using the cost per metric ton based on the period 2021 to 2030. However, for several measures the sign of the estimate differs, such that in 2030 the measure has a positive cost while there is a negative cost for the period 2021 to 2030. This difference in sign occurs because the measure includes increasingly costly investments toward the end of the period examined. By examining only 2030, the lower cost components of the measure that occur in earlier years are omitted, resulting in a higher cost estimate for 2030 alone.

TABLE 10: ESTIMATED COST PER METRIC TON OF MEASURES CONSIDERED IN THE 2017 SCOPING PLAN DEVELOPMENT AND AVERAGED FROM 2021 THROUGH 2030

Important: As individual measures are designed and implemented they will be subject to further evaluation and refinement and public review, which may result in different findings than presented below. The ranges are estimates that represent current assumptions of how programs may be implemented and may vary greatly depending on the design, implementation, and performance of the policies and measures. Measures in bold text are included in the Scoping Plan.

Measure	Cost/metric ton in 2030*	Cost/metric ton 2021-2030**
50 percent Renewables Portfolio Standard (RPS) ^a	\$175	\$100 to \$200
Mobile Sources CFT and Freight ^b	<\$50	<\$50
Liquid Biofuels (18 percent Carbon Intensity Reduction Target for LCFS) ^c	\$150	\$100 to \$200
Short-Lived Climate Pollutant Strategy ^d	\$25	\$25
2x additional achievable energy efficiency in the 2015 IEPR ^f	-\$350	-\$300 to -\$200
10 percent incremental RPS and additional 10 GW behind-the-meter solar PV ^a	\$350	\$250 to \$450
Liquid Biofuels (25 percent Carbon Intensity Reduction Target for LCFS and a Low-Emission Diesel Standard) ^b	\$900	\$550 to \$975
20 percent Refinery ^d	\$100	\$50 to \$100
30 percent Refinery ^d	\$300	\$175 to \$325
25 percent Industry ^d	\$200	\$150 to \$275
25 percent Oil and Gas ^d	\$125	\$100 to \$175
5 percent Increased Utilization of renewable natural gas - core and non-core ^e	\$1500	\$1350 to \$3000
Mobile Source Strategy (CFT) with Increased ZEVs in South Coast & additional reductions in VMT and energy demand & early retirement of LDVs with more efficient LDVs ^b	\$100	<\$50
2.5x additional achievable energy efficiency in the 2015 IEPR, electrification of buildings (heat pumps & res. electric stoves) and early retirement of HVAC ^f	\$75	-\$120 to -\$70

* Where enhancements have been made to a measure or policy, the cost per metric ton are incremental to the original measure. For example, the cost per metric ton for the 25 percent LCFS are incremental to the cost per metric ton for the 18 percent LCFS.

** The lower values use a cost discount rate of 10 percent and cumulative emissions for the period 2021 to 2030. The higher values discount both costs and emissions using a discount rate of 10 percent.

a Cost estimate is based on PATHWAYS sensitivity analysis as described in the main text.

b Cost estimate is based on PATHWAYS sensitivity analysis as described in the main text.

c Liquid biofuel values are calculated as the average unsubsidized cost of biofuels supplied above that of an equivalent volume of fossil fuels. These values do not reflect impacts from other biofuel policies, such as the Renewable Fuel Standard or production tax credits, that are partially supported by fuel purchasers/taxpayers outside of California. Therefore, these values do not represent LCFS program costs or potential LCFS credit prices.

d See Appendix D

e Cost estimate is based on PATHWAYS sensitivity analysis as described in the main text.

f Cost estimate is based on PATHWAYS sensitivity analysis as described in the main text. The cost per metric ton does not represent the results of the CPUC's or CEC's standard cost-effectiveness evaluation tests

Health Analyses

Climate mitigation will result in both environmental and health benefits. This section presents information about the potential health benefits of the Scoping Plan. The impacts are primarily from reduced particulate matter pollution, reduced toxics pollution (both diesel combustion particles and other toxic pollutants), and the health benefits of increased physical activity that will result from more active modes of transportation such as walking and biking in lieu of driving. CARB is using the AB 197 air quality estimates in Table 5 as a proxy to understand the potential health impacts from the Scoping Plan. There is uncertainty in the air quality estimates and that is carried through to the health impacts evaluation presented here. In the future, CARB will be working to explore how to better integrate health analysis and health considerations in the design and implementation of climate programs.

Because the health endpoints of each of these benefits is different (e.g., fewer incidences of premature mortality, lower cancer risk, and fewer incidences of heart disease), the methodologies for estimating the benefits differ. Further, the methodologies are statistical estimates of adverse health outcomes aggregated to the statewide level. Therefore, this information should only be used to understand the relative health benefits of the various strategies and should not be taken as an absolute estimate of the health outcomes of the Scoping Plan statewide, or within a specific community. The latter is a function of the unique exposure to air pollutants within each community and each individual's choice of more active transport modes that increase physical activity.

The estimates of health benefits in this section do not include any potential avoided adverse health impacts associated with a reduction in global climate change. While we recognize that mitigating climate change will, for example, prevent atmospheric temperature rise, thereby preventing increases in ozone in California, which will result in fewer breathing problems, the connection is difficult to estimate or model. Since it takes collective global action to mitigate climate change, the following analyses do not attempt to quantify the improved health outcomes from reducing or stopping the rise in global temperatures.

The estimated statewide health benefits of the Scoping Plan are dominated by reductions in particulate matter from mobile sources and wood burning and a switch to more active transport modes. In particular, the focus on the impacts of exposure to particulate matter from mobile sources is expected because this is a major cause of air pollution statewide. For this reason, the actions concerning mobile sources in the Scoping Plan were specifically developed with the goal of achieving health-based air quality standards by reducing criteria and toxics emissions as well as GHG emissions simultaneously. In addition, actions that support walkable communities not only result in reduced VMT and related GHG emissions, but promote active transport and increased physical activity that is strongly related to improved health.

Table 11 provides a summary of the total estimated health benefits from the relevant metrics for the Scoping Plan. The sections below summarize the methodologies used to estimate these benefits. More detail on how these estimates were calculated can be found in Appendix G. The air pollutant values used in estimating the health impacts are from Table 5 and all caveats in the estimation of the air quality impacts must be considered when reviewing the health impacts discussed below as the air pollutant values are likely overestimates based on assigned relationships to GHGs that may not be real.

Potential Health Impacts of Reductions in Particulate Matter Air Pollution

CARB relied on an U.S. EPA-approved methodology to estimate the health impacts of reducing air pollution by actions in the Scoping Plan. This methodology relies on an incidents-per-ton factor to quantify the health benefits of directly emitted (diesel particles and wood smoke) and secondary PM_{2.5} formed from oxides of nitrogen from reductions due to regulatory controls. It is similar in concept to the methodology developed by the U.S. EPA for comparable estimations¹⁰¹, but uses California air basin specific relationships between emissions and air quality. The basis of the methodology is an approximately linear relationship between changes in PM_{2.5} emissions and estimated changes in health outcomes. In this methodology, the number of premature deaths is estimated by multiplying emissions by the incidents-per-ton scaling factor. The factors are derived from studies that correlate the number of incidents (premature deaths, hospitalizations, emergency room visits) associated with exposure to PM_{2.5}.

¹⁰¹ Fann, N., Fulcher, C.M., & Hubbell, B.J. (2009) The influence of location, source, and emission type in estimates of the human health benefits of reducing a ton of air pollution. (2009) *Air Quality, Atmosphere & Health* 2(3), 169–176

Potential Health Impacts of Reductions in Toxic Air Pollution

A number of factors complicate any attempt to evaluate the health benefits of reducing exposure to toxic air pollution. First, there are hundreds of individual chemicals of concern with widely varying health effects and potencies. Therefore, a single metric is of limited value in capturing the range of potential toxics benefits. Furthermore, unlike the criteria pollutants whose impacts are generally measured on regional scales, toxics pose concern for both near-source impacts and larger-scale photochemical transformations and transport. Finally, the accepted scientific understanding for cancer risk is that there is usually no safe threshold for exposures to carcinogens. Therefore, cancer risks are usually expressed as “chances per million” of contracting cancer over a (70-year) lifetime exposure (in Table 11 lifetime exposure is provided in the far right column).

In light of these complexities, CARB relied on the most recent National Air Toxics Assessment (NATA) conducted by the U.S. EPA.¹⁰² The NATA 2011 models the potential risks from breathing emissions of approximately 180 toxic air pollutants across the country. Modeled cancer risk results are available by census tract. The NATA data cover industrial facilities, mobile sources (on-road and off-road), small area-wide sources, and more. CARB multiplied the NATA “cancer risk-per-million” values by census tract by the census tract’s population, in order to estimate a population-weighted metric that could be aggregated to the statewide level. This statistic should not be construed as actual real-world cancers (due to the many uncertainties in estimating the real-world levels of risk). Next, CARB applied the percent reductions in emissions due to Scoping Plan actions, in order to obtain an estimate of the “avoided incidence” of statistical lifetime cancers attributable to implementation of the Scoping Plan. Again, the “avoided incidence” is a construct designed to provide a useful statistical metric for comparative purposes among scenarios. It should not be construed to be a real-world parameter.

Potential Health Impacts of Active Transportation

High levels of active transportation have been linked to improved health and reduced premature mortality by increasing daily physical activity, representing a major direct co-benefit of using active transportation as a strategy to reduce GHG emissions. The benefits of physical activity can be very large. Individuals who are active for approximately 12 minutes a day have a 20 percent lower risk of dying early than those who are active for just 5 minutes a day and those who are active an hour a day, have close to a 40 percent lower risk of premature death.¹⁰³

The Scoping Plan includes reductions in VMT, which can be achieved in a number of ways, including increased active transportation. To estimate the potential health benefits of active transport, CARB staff reviewed work done by the California Department of Public Health (CDPH) concerning the potential health benefits associated with the Caltrans Strategic Management Plan. In this Management Plan, Caltrans set a target for increasing the adoption of active transportation, aiming for a doubling of walking and a tripling of bicycle trips by 2020 compared to 2010. While this plan itself is not part of the Scoping Plan, it helps provide a sense of the magnitude of health benefits associated with increased active transportation.

CDPH performed a risk assessment to compare the number of premature deaths due to physical inactivity and traffic injuries in the baseline year of 2010 to the year 2020, assuming that Caltrans’ walking and bicycling mode share targets were met.¹⁰⁴ CDPH’s methodology has been documented in a publicly available technical manual¹⁰⁵ and the model has appeared in many peer-reviewed research articles.¹⁰⁶ It has been in development

102 U.S. Environmental Protection Agency (2011), National Air Toxics Assessment (NATA) 2011, <https://www.epa.gov/national-air-toxics-assessment/2011-nata-assessment-results>

103 U.S. Department of Health and Human Services (2008) Physical Activity Guidelines Advisory Committee. Physical Activity Guidelines Advisory Committee Report, Washington, DC

104 Maizlish, N. (2016a) Increasing Walking, Cycling, and Transit: Improving Californians’ Health, Saving costs, and Reducing Greenhouse Gases. Office of Health Equity, California Department of Public Health. <https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/Maizlish-2016-Increasing-Walking-Cycling-Transit-Technical-Report-rev8-17-ADA.pdf>

105 Maizlish, N. (2016b) Integrated Transport and Health Impact Model (ITHIM): A Guide to Operation, Calibration and Integration with Travel Demand Models. California Spreadsheet Version December 12, 2016.

106 Gotschi, T., Tainio, M., Maizlish, N., Schwanen, T., Goodman, A., & Woodcock, J. (2015). Contrasts in active transport behaviour across four countries: how do they translate into public health benefits? *Preventative Medicine*, 74, 42-48. doi:10.1016/j.ypmed.2015.02.009

Maizlish, N., Woodcock, J., Co, S., Ostro, B., Fanai, A., & Fairley, D. (2013). Health cobenefits and transportation-related reductions in greenhouse gas emissions in the San Francisco Bay area. *American journal of public health*, 103(4), 703-709. doi:10.2105/ajph.2012.300939

Whitfield, G. P., Meehan, L. A., Maizlish, N., & Wendel, A. M. (2016). The Integrated Transport and Health Impact Modeling

since 2009, and a California-specific version was released with a recent update in November 2016.¹⁰⁷

CDPH estimated that 2,100 premature deaths annually would be avoided if Californians met the Management Plan’s 2020 targets were met by Californians compared to 2010 travel patterns. A recent paper by Dr. Maizlish et al¹⁰⁸ quantified the health co-benefits of the preferred Sustainable Communities Strategies scenarios (compared to the 2010 baseline travel pattern) for the major Metropolitan Planning Organizations using the same methodology and found that 940 deaths annually would be avoided. For both analyses, there were significant reductions in cause-specific premature mortality due to increased physical activity, which was slightly counteracted by a much smaller increase in fatal traffic injuries due to the increased walking and bicycling. When taken together, the health benefit of increasing active transportation greatly outweighed the increased mortality from road traffic collisions. The Scoping Plan goals related to active transportation are more aggressive than those in both the Maizlish et al. 2017 publication and the analysis by CDPH for the Management Plan. Therefore, CARB staff used the CDPH estimate of approximately 2,100 fewer premature deaths from the Management Plan as a lower bound of what could be realized through implementation of the VMT reductions and active transport goals called for in the Scoping Plan Scenario.

TABLE 11: SUMMARY OF RANGES OF ESTIMATED HEALTH IMPACTS FOR THE SCOPING PLAN SCENARIO IN 2030

	Fewer Premature Deaths	Fewer Hospitalizations (all)	Fewer ER visits	Fewer cancers *
Diesel PM	~60-91	~9-14	~25-38	
Secondary PM	~76-120	~11-17	~33-50	
Toxics				~21-61
Wood smoke	~1000	~ 148	~ 418	
Active Transport**	>2100			
Total	~3300	~180	~500	~21-61

* This metric should not be construed as actual real-world cancer cases. It is intended to be a comparative metric, based on the NATA estimates of lifetime cancer risk (chances-per-million over a 70 year life-time exposure) by census tract multiplied by the tract population.

** Reduction in premature death assumes meeting the CSMP 2020 mode shift target.

Note: The numbers in the table represent individual avoided incidences.

Tool in Nashville, Tennessee, USA: Implementation Steps and Lessons Learned. *Journal of transport & health*, 3. doi:10.1016/j.jth.2016.06.009

Woodcock, J. (2015). Integrated Transport and Health Impact Modelling Tool (ITHIM). Retrieved from <http://www.cedar.iph.cam.ac.uk/research/modelling/ithim/>

Woodcock, J., Edwards, P., Tonne, C., Armstrong, B. G., Ashiru, O., Banister, D., & Roberts, I. (2009). Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport. *Lancet*, 374(9705), 1930-1943. doi:10.1016/s0140-6736(09)61714-1

Woodcock, J., Givoni, M., & Morgan, A. S. (2013). Health impact modelling of active travel visions for England and Wales using an Integrated Transport and Health Impact Modelling Tool (ITHIM). *PLoS One*, 8(1), e51462. doi:10.1371/journal.pone.0051462

Woodcock, J., Tainio, M., Cheshire, J., O'Brien, O., & Goodman, A. (2014). Health effects of the London bicycle sharing system: health impact modelling study. *BMJ (Clinical research ed.)*, 348, g425. doi:10.1136/bmj.g425

107 Woodcock, J. Maizlish, N. (2016). ITHIM: Integrated Transport & Health Impact Modelling, California Version, November 11, 2016. Original citation: Woodcock J, Givoni M, Morgan AS. Health Impact Modelling of Active Travel Visions for England and Wales Using an Integrated Transport and Health Impact Modelling Tool (ITHIM). *PLoS One*. 2013;8(1):e51462.

108 Maizlish N, Linesch N, & Woodcock J. (2017) Health and greenhouse gas mitigation benefits of ambitious expansion of cycling, walking, and transit in California. *Journal of Transport and Health*. ; doi: 10.1016/j.jth.2017.04.011

Future Health Activities

As Table 11 shows, the Scoping Plan measures would have significant potential positive health outcomes. The integrated nature of the strategies to reduce emissions of GHGs and criteria and toxics emissions could provide multiple benefits. Actions to reduce black carbon from wood smoke are reducing the same particles that lead to premature mortality. Reductions in fossil combustion will not only reduce GHG emissions, but also toxics emissions. Finally, reducing VMT with strategies that provide opportunities for people to switch to active transport modes can have very large health benefits resulting from increased physical activity.

In recognition of the potential for significant positive health benefits of the Scoping Plan, CARB is initiating a process to better understand how to integrate health analysis broadly into the design and implementation of our climate change programs with the goal of maximizing the health benefits. Although health impact assessments have been used to inform CARB's policymaking, these analyses have not been consistently integrated into the general up-front design of CARB programs. To begin the effort to increase health benefits from climate change mitigation policies, CARB will convene a public meeting in Spring 2018 to solicit input on how best to incorporate health analyses into our policy development. CARB staff will seek appropriate tools for these analyses and will assemble a team of academic advisors to provide input on the latest developments in methods and data sources.

Economic Analyses

The following section outlines the economic impact of the Scoping Plan relative to the business-as-usual Reference Scenario. Additional detail on the economic analysis, including modeling details and the estimated economic impact of alternative scenarios is presented in Appendix E.

The Scoping Plan outlines a path to achieve the SB 32 target that requires less reliance on fossil fuels and increased investment in low carbon fuels and clean energy technologies. Through this shift, California can lead the world in developing the technologies needed to reduce the global risks of climate change. This builds on California's current successes of reducing GHG emissions while also developing a cleaner, resilient economy that uses less energy and generates less pollution. Innovation in low-carbon technologies will continue to open growth opportunities for investors and businesses in California. As modeled, the analysis in this Scoping Plan suggests that the costs of transitioning to this lower carbon economy are small, even without counting the potential opportunities for new industries and innovation in California. Under the Scoping Plan, the California economy, employment, and personal income will continue to grow as California businesses and consumers make clean energy investments and improve efficiency and productivity to reduce energy costs.

In 2030, the California economy is projected to grow to \$3.4 trillion, an average growth rate of 2.2 percent per year from 2021 to 2030. It is not anticipated that implementation of the Scoping Plan will change the growth of annual State Gross Domestic Product (GDP). Further, this growth in GDP will occur under the entire projected range of Cap-and-Trade Program allowance prices. Based on this analysis, in 2030 the California economy will take only three months longer to grow to the GDP estimated in the absence of the Scoping Plan—referred to as the Reference Scenario. The impact of the Scoping Plan on job growth is also negligible, with employment less than one half of one percent smaller in 2030 compared to the Reference Scenario.

Additionally, reducing GHG emissions 40 percent below 1990 levels under the Scoping Plan will lead to avoided social damages from climate change on the order of \$1.9 to \$11.2 billion, as estimated using the SC-CO₂ and SC-CH₄, as well as additional potential savings from reductions in air pollution and petroleum dependence. These impacts are not accounted for in this economic analysis. The estimated impact to California households is also modest in 2030. In 2030, the average annual household impact of the Scoping Plan ranges from \$115 to \$280, depending on the price of reductions under the Cap-and-Trade Program.¹⁰⁹ Estimated personal income in California is also relatively unchanged by the implementation of the Scoping Plan.

¹⁰⁹ Household projections are obtained from the California Department of Finance and were access on March 16, 2017 at: <http://www.dof.ca.gov/Forecasting/Demographics/projections/>.

Overview of Economic Modeling

Two models are used to estimate the economic impact of the Scoping Plan and California's continued clean energy transition: (1) the California PATHWAYS model, and (2) the Regional Economic Models, Inc. (REMI) Policy Insight Plus model. The California PATHWAYS model estimates the direct costs and GHG emissions reductions of implementing the prescriptive (or non-Cap-and-Trade) measures in the Scoping Plan relative to the BAU scenario.¹¹⁰ Direct costs are the sum of the incremental changes in capital expenditures and fuel expenditures, including fuel savings for reduced energy use from efficiency measures. In most cases, reducing GHG emissions requires the use of more expensive equipment that can be operated using less fuel. In the Scoping Plan, the prescriptive measures modeled in PATHWAYS account for a portion of the GHG reductions required to meet the 2030 target. The remaining reductions are delivered through the Cap-and-Trade Program. The direct costs associated with the Cap-and-Trade Program are calculated outside of PATHWAYS based on an assumed range of Cap-and-Trade allowance prices from 2021 through 2030.

To estimate the future costs of the Scoping Plan, this economic analysis necessarily creates a hypothetical future California that is essentially identical to today, adjusted for currently existing climate policy as well as projected economic and population growth through 2030. The analysis cannot predict the types of innovation that will create efficiencies nor can it fully account for the significant economic benefits associated with reducing emissions. Rather, the economic modeling is conducted by estimating incremental capital and clean fuel costs of measures and assigning those costs to certain sectors within this hypothetical future.

The macroeconomic impacts of the Scoping Plan on the California economy are modeled using the REMI model with output from California PATHWAYS and estimated Cap-and-Trade Program costs as inputs. Additional methodological detail is presented in Appendix E.¹¹¹

Estimated Cost of Prescriptive Measures

As described above, the Scoping Plan combines new measures addressing legislative mandates and the extension of existing measures, including a comprehensive cap on overall GHG emissions from the State's largest sources of pollution. The PATHWAYS model calculates costs and GHG emissions reductions associated with the prescriptive measures in the Scoping Plan. Changes in energy use and capital investment are calculated in PATHWAYS and represent the estimated cost of achieving an estimated 50 to 70 percent of the cumulative GHG reductions required to reach the SB 32 target between 2021 and 2030. The Cap-and-Trade Program delivers any remaining reductions, as shown in Figure 8.

Table 12 outlines the cost of prescriptive measures by sector in 2030, compared to the Reference Scenario, as calculated in PATHWAYS. Estimated capital costs of equipment are leveled over the life of the equipment using a 10 percent discount rate and fuel costs are calculated on an annual basis.¹¹² The costs in Table 12 are disaggregated into capital costs and fuel costs, which includes the varying costs of gasoline, diesel, biofuels, natural gas, electricity and other fuels.¹¹³ Table 12 assumes that all prescriptive measures deliver anticipated GHG reductions, and does not include any uncertainty in GHG reductions or cost.¹¹⁴ The impact of uncertainty in GHG reductions is explored in more detail in Appendices E, which include additional detail on measure, cost, and Reference Scenario uncertainty.

The prescriptive measures result in incremental capital investments of \$6.7 billion per year in 2030, but these annual capital costs are nearly offset by annual fuel savings of \$6.6 billion in 2030. The incremental net cost of prescriptive measures in the Scoping Plan is estimated at \$100 million in 2030, which represents 0.03 percent of the projected California economy in 2030. The residential and transportation sectors are anticipated to see net savings in 2030 as fuel savings for these areas vastly outweigh annual capital investment. Several sectors will see a net cost increase from implementation of the prescriptive measures. The industrial sector sees higher fuel costs relative to the Reference Scenario. In the agriculture sector, capital expenditures are due to investments in more efficient lighting and the mitigation of agricultural methane and nitrogen oxides. Agricultural fuel costs increase due to higher electricity and liquid biofuel costs.

110 The PATHWAYS modeling is described in Chapter 2, and additional detail is presented in Appendix D.

111 Additional modeling details are available at the REMI PI+ webpage: <http://www.remi.com/products/pi>.

112 PATHWAYS costs are calculated in real \$2012. For this analysis, all costs are reported in \$2015. The PATHWAYS costs are in ¹ated using Bureau of Economic Analysis (BEA) data available at: <https://www.bea.gov/iTable/iTable.cfm?ReqID=9#reqid=9&step=1&isuri=1&903=4>.

113 Additional information on the fuels included in PATHWAYS is available at: www.arb.ca.gov/cc/scopingplan/meetings/1142016/e3pathways.pdf.

114 More information on the inputs to the California PATHWAYS model is available at: www.arb.ca.gov/cc/scopingplan/scoping_plan_scenario_description2016-12-01.pdf.

TABLE 12: CHANGE IN PATHWAYS SECTOR COSTS IN 2030 RELATIVE TO THE REFERENCE SCENARIO (BILLION \$2015)¹¹⁵

End Use Sector ¹¹⁶	Levelized Capital Cost	Fuel Cost	Total Annual Cost
Residential	\$0.1	-\$1.2	-\$1.1
Commercial	\$1.8	-\$1.8	\$0.1
Transportation	\$3.5	-\$3.8	-\$0.3
Industrial	\$0.8	\$0.3	\$0.5
Oil and Gas Extraction	\$0.0	\$0.0	\$0.1
Petroleum Refining	\$0.0	\$0.0	\$0.0
Agriculture	\$0.3	\$0.2	\$0.5
TCU (Transportation Communications and Utilities)	\$0.1	\$0.1	\$0.2
Total	\$6.7	-\$6.6	\$0.1

Note: Table values may not add due to rounding.

Estimated Cost of the Cap-and-Trade Program

The direct cost of achieving GHG reductions through the Cap-and-Trade Program is estimated outside of PATHWAYS. The Cap-and-Trade Program sets an economy-wide GHG emissions cap and gives firms the flexibility to choose the lowest-cost approach to reduce emissions. As with the prescriptive measures, the direct costs of any single specific GHG reduction activity under the Cap-and-Trade Program is subject to a large degree of uncertainty. However, as Cap-and-Trade allows covered entities to pursue the reduction options that emerge as the most efficient, overall abatement costs can be bounded by the allowance price. Covered entities should pursue reduction actions with costs less than or equal to the allowance price. An upper bound on the compliance costs under the Cap-and-Trade Program can therefore be estimated by multiplying the range of anticipated allowance prices by the anticipated GHG reductions needed (in conjunction with the reductions achieved through the prescriptive measures) to achieve the SB 32 target.

A large number of factors influence the allowance price, including the ease of substituting lower carbon production methods, consumer price response, the pace of technological progress, and impacts to the price of fuel. Other policy factors that also affect the allowance price include the use of auction proceeds from the sale of State-owned allowances and linkage with other jurisdictions.

Flexibility allows the Cap-and-Trade allowance price to adjust to changes in supply and demand while a firm cap ensures GHG reductions are achieved. This analysis includes a range of allowance prices bounded at the low end by the Cap-and-Trade auction floor price (C+T Floor Price) which represents the minimum sales price for allowances sold at auction and the Allowance Price Containment Reserve Price (C+T Reserve Price), which represents the price at which an additional pool of allowances will be made available to ensure entities can comply with the Cap-and-Trade Program and is the highest anticipated price under the Program. Table 13 outlines the projected allowance prices used in this analysis.¹¹⁷

115 PATHWAYS costs reported in \$2012 are inflated to \$2015 using the Bureau of Economic Analysis (BEA) data available at: <https://www.bea.gov/iTable/iTable.cfm?ReqID=9#reqid=9&step=1&isuri=1&903=4>.

116 Information on the end use sectors are available in the California PATHWAYS documentation available at: www.arb.ca.gov/cc/scopingplan/scopingplan.htm.

117 The Cap-and-Trade allowance price range is based on the Cap-and-Trade Regulation approved by the Office of Administrative

TABLE 13: ESTIMATED RANGE OF CAP-AND-TRADE ALLOWANCE PRICE 2021–2030*

(\$2015)	2021	2025	2030
C+T Floor Price	\$16.2	\$19.7	\$25.2
C+T Reserve Price	\$72.9	\$76.4	\$81.9

* Based on current regulation in effect October 1, 2017

Uncertainty in the GHG reduction potential of prescriptive measures in the Scoping Plan can affect the cost of achieving the 2030 target. The aggregate emissions cap of the Cap-and-Trade Program ensures that the 2030 target will be met—irrespective of the GHG emissions realized through prescriptive measures. If GHG reductions anticipated under prescriptive measures do not materialize, the Cap-and-Trade Program will be responsible for a larger share of emissions reductions. Under that scenario, the demand for Cap-and-Trade allowances may rise, resulting in an increase in allowance price. While the Cap-and-Trade allowance price may rise, it is highly unlikely that it will rise above the C+T Reserve price, given the program design. If prescriptive measures deliver anticipated GHG reductions, demand for allowances will be low, depressing the price of allowances. However, the C+T Floor Price represents the lowest price at which allowances can be sold at auction.

Table 14 presents the estimated direct cost estimates for GHG reductions achieved through the Cap-and-Trade Program in 2030. These costs represent the lower and upper bounds of the cost of reducing GHG emissions to achieve the SB 32 target under the Scoping Plan. The estimated direct costs range from \$1.6 to \$5.1 billion dollars (in \$2015), depending on the allowance price in 2030. This range highlights the allowance price uncertainty that is a trade-off to the GHG reduction certainty provided by the Cap-and-Trade Program. The estimated cost of GHG reductions is calculated by multiplying the allowance price by the GHG emissions reductions required to achieve the SB 32 target.

Sensitivity Analysis

In addition to uncertainty in the Cap-and-Trade allowance price and uncertainty in the GHG reductions achieved through the prescriptive measures, there is uncertainty in the GHG emissions that will occur under the Reference Scenario, as presented in Figure 6. There is also uncertainty in costs embedded within the Reference Scenario including the price of oil, other energy costs, and technology costs.

The PATHWAYS incremental cost results are also sensitive to the fossil fuel price assumptions. Altering the fuel price trajectory in the Reference Scenario directly impacts the incremental cost of achieving GHG reductions in the Scoping Plan, as the costs of the Scoping Plan are relative to the Reference Scenario.¹¹⁸

The PATHWAYS scenarios use fossil fuel price projections from the Annual Energy Outlook (AEO) 2015 reference case.¹¹⁹ To estimate the impact of changes in future fuel prices on the estimated incremental cost of the Scoping Plan two sensitivities were conducted. In the low fuel price sensitivity, the AEO low oil and natural gas price case is used to project the future cost of fuels in the Reference Scenario. The cost of the Scoping Plan, relative to the Reference Scenario, increases under these conditions, since fuel savings are less valuable when fuel prices are low. A second sensitivity shows that high future oil and natural gas prices (as projected in the AEO high oil price case) reduce the net cost of the Scoping Plan, relative to the Reference Scenario. This is because avoided fuel savings are more valuable when fuel prices are high. Table 14 outlines the costs and savings from the Scoping Plan (both prescriptive measures and cap-and-trade) under the high and low fuel price sensitivities.

The price of oil and natural gas affects the value of fuel savings (as presented in Table 12), which are estimated to be significant using AEO reference oil and natural gas prices. Under the low fuel price sensitivity,

Law on September 18, 2017. Documentation is available at: www.arb.ca.gov/regact/2016/capandtrade16/capandtrade16.htm

118 In addition to the fuel cost sensitivities presented in this section, Appendix E includes an uncertainty analysis of the Scoping Plan Scenario and alternatives. This analysis addresses uncertainty in the Reference Scenario emissions, GHG reductions from each measure, as well as capital and fuel costs.

119 The high and low fuel price sensitivity ranges are derived from differences between the AEO 2016 High Oil Price or Low Oil Price forecast and the AEO 2016 reference case, and are applied as ratios to the base case fuel price assumptions (which are based on the AEO 2015 report). The AEO 2015 report is available at: [http://www.eia.gov/outlooks/aeo/pdf/0383\(2015\).pdf](http://www.eia.gov/outlooks/aeo/pdf/0383(2015).pdf) and the AEO 2016 report is available for download at: [http://www.eia.gov/outlooks/aeo/pdf/0383\(2016\).pdf](http://www.eia.gov/outlooks/aeo/pdf/0383(2016).pdf).

the net incremental cost of prescriptive measures is \$2.9 billion in 2030. Under the high fuel price sensitivity, the prescriptive measures result in net savings of \$4.9 billion in 2030. Table 14 also shows that these price uncertainties are captured within the analyzed range of allowance prices. As described above, changes in fuel prices may affect the price of Cap-and-Trade allowances, but the price is highly unlikely to go outside the range of prices bounded by the C+T Floor Price and C+T Reserve Price. The final column in Table 14 presents the estimated direct cost of the Scoping Plan, including both the prescriptive measures and a range of estimated costs to achieve GHG reductions under the Cap-and-Trade Program for varying projections of future fuel prices. The total cost, reflecting fuel and allowance price uncertainty, ranges from an annual savings to California of \$3.3 billion to an annual cost of \$8.0 billion in 2030. The net climate benefits, as estimated by the SC-CO₂ and SC-CH₄, outweigh these direct costs.¹²⁰

TABLE 14: ESTIMATES OF DIRECT COST AND CLIMATE BENEFITS IN 2030 RELATIVE TO THE REFERENCE SCENARIO AND INCLUDING FUEL PRICE SENSITIVITY (BILLION \$2015)

Scenario	Prescriptive Measures	C+T Floor Price	C+T Reserve Price	2030 Total Cost
Scoping Plan	\$0.1	\$1.6	\$5.1	\$1.7 to \$5.2
Low Fuel Price Sensitivity	\$2.9	\$1.6	\$5.1	\$4.5 to \$8.0
High Fuel Price Sensitivity	-\$4.9	\$1.6	\$5.1	-\$3.3 to -\$0.2

Fuel price sensitivity is directly modeled in PATHWAYS, resulting in a range of impacts from prescriptive measures. The range of costs labeled “2030 Total Cost” includes the cost of prescriptive measures estimated in PATHWAYS and the impact of the Cap and-Trade Program calculated at the C+T Floor Price (the lower bounds) and the C+T Reserve Price (the upper bounds). The social cost of GHGs estimated range in 2030 is \$1.9 to \$11.2 billion.

Macroeconomic Impacts

The macroeconomic impacts of the Scoping Plan are estimated using the REMI model. Annual capital and fuel costs (for example, the costs in Table 12) are estimated using PATHWAYS and input into the REMI model to estimate the impact of the Scoping Plan on the California economy each year relative to GDP, which is often used as a proxy for economic growth, as well as employment, personal income, and changes in output by sector and consumer spending. Table 15 presents key macroeconomic impacts of implementing the Scoping Plan, based on the range of anticipated allowance prices. In 2030, under the Scoping Plan, growth across the indicators is about one-half of one percent less than the Reference Scenario. The results in Table 15 include not only the estimated direct cost of the Cap-and-Trade Program, but also distribution of allowance value from the auction of Cap-and-Trade allowances to California and consumers. See Appendix E for more detail on the modeling of the return of allowance value under the Cap-and-Trade Program in REMI.

The Cap-and-Trade Program is modeled in REMI as an increase in production cost to sectors based on estimated future GHG emissions and anticipated free allowance allocation. If a sector is expected to receive free allocation of allowances, the value of those free allowances is not modeled as a cost in REMI. The analysis does include the estimated benefit to sectors due to the proceeds from the auction of cap-and-trade allowances and assumes that each year \$2 billion of proceeds from the auction of State-owned cap-and-trade allowances are distributed to the economic sectors currently receiving GGRF appropriations. These funds work to achieve further GHG reductions in California, lower the cost to businesses of reducing GHG emissions and protect disadvantaged communities. Any auction proceeds remaining after the distribution of \$2 billion through GGRF sectors are distributed evenly to consumers in California as a dividend. The estimated costs in Table 15 include the cost of the GHG reductions to sectors, as well as the benefit to those sectors when allowance proceeds are returned through the GGRF and as a dividend to consumers, as detailed in Appendix E.

¹²⁰ Climate benefits are estimated using the Social Cost of Carbon in 2030 across the range of discount rates from 2.5 to 5 percent. All values are reported in \$2015. Additional information on the Social Cost of Carbon is available from the National Academies of Sciences, Engineering, and Medicine at: <https://www.nap.edu/catalog/24651/valuing-climate-damages-updating-estimation-of-the-social-cost-of>.

TABLE 15: MACROECONOMIC INDICATORS IN 2030 UNDER BASE FUEL PRICE ASSUMPTIONS

	Reference Scenario (2030)	Scoping Plan (2030)	Percentage Change Relative to Reference Scenario
California GDP (Billion \$2015)	\$3,439	\$3,430 to \$3,420	-0.3 percent to -0.6 percent
Employment (Thousand Jobs)	23,522	23,478 to 23,441	-0.2 percent to -0.3 percent
Personal Income (Billion \$2015)	\$3,010	\$3,006 to \$3,008	-0.1 percent to -0.1 percent

Table 15 was estimated using the REMI model. The range of costs for the Scoping Plan represents the impact of achieving the SB 32 target through prescriptive measures and the Cap-and-Trade Program at the C+T Floor Price (the lower bounds) and the C+T Reserve Price (the upper bounds).

It is important to put the results of Table 15 into context of the growing \$3.4 trillion California economy in 2030. As noted earlier, the economic analysis does not include avoided social damages and other potential savings from reductions in air pollution and petroleum dependency.

Determining employment changes as a result of policies is challenging to model, due to a range of uncertainties and global trends that will influence the California economy, regardless of implementation of the Scoping Plan. The global economy is seeing a shift toward automation and mechanization, which may lead to slowing of employment across some industries globally, irrespective of California’s energy and low carbon investments. In California, employment is projected to reach 23.5 million jobs in 2030. In this analysis, implementing the Scoping Plan would slow the growth of employment by less than one-half of one percent in 2030.

Estimated personal income in California is relatively unchanged under the Scoping Plan relative to the Reference Scenario. Considering the uncertainty in the modeling, modest changes in the growth of personal income are not different from zero, which suggests that meeting the SB 32 target will not change the growth of personal income relative to the Reference Scenario.

When analyzing the estimated macroeconomic impacts, it is important to remember that a major substitution of electricity and capital away from fossil fuels is anticipated to have a very small effect on California GDP, employment, and personal income—less than one percent relative to the Reference Scenario in 2030. The economic impacts indicate that shifting money and investment away from fossil fuels and to clean energy is likely to have a negligible effect on the California economy. Additionally, it is certain that innovation will continue as new technologies are developed and implemented. While this analysis projects the costs and GHG reductions of current technologies over time, it does not capture the impact of new technologies that may shift the economy and California in unanticipated ways or benefits related to changes in air pollution and improvements to human health, avoided environmental damages, and positive impacts to natural and working lands. Thus, the results of this analysis very likely underestimate the benefits of shifting to a clean energy economy.

Consumer spending also shifts in response to implementation of the Scoping Plan relative to the Reference Scenario. As presented in Table 15, there is a negligible impact to consumer income, but small changes in income can alter the distribution of consumer spending among categories. In 2030, consumer spending is lower under the Scoping Plan than in the Reference Scenario across all analyzed allowance prices. Consumers spend less on fuels, electricity, natural gas, and capital as a result of measures in the Scoping Plan that reduce demand, increase efficiency, and drive technological innovations. The estimated impact to California households is also modest in 2030. The estimated cost to California households in 2030 ranges from \$115 to \$280, depending on the price of reductions under the Cap-and-Trade Program.¹²¹

The household impact is estimated using the per-household change in personal income as modeled in REMI and utilizing household estimates from the California Department of Finance. The household impact does not account for benefits from reduced climate impacts, health savings from reduced air pollution impacts, or lower petroleum dependence costs that might impact households. Additional details are presented in Appendix E.

As modeled, the household impact of the Scoping Plan comprises approximately one percent of average household expenditures in 2030. To ensure that vulnerable populations and low-income households are not

¹²¹ Household projections are obtained from the California Department of Finance and are available at: <http://www.dof.ca.gov/Forecasting/Demographics/projections/>.

disproportionately affected by California's climate policy, CARB is taking steps to better quantify localized economic impacts and ensure that low-income households see tangible benefits from the Scoping Plan. Researchers at the University of California, Los Angeles (UCLA) are currently working on a retrospective analysis that will estimate the impacts across California communities of the implementation of AB 32, which will help identify areas of focus as 2030 measures are developed. The Cap-and-Trade Program will also continue to provide benefit to disadvantaged communities through the disbursement of GGRF funds.

The investments made in implementing the Scoping Plan will have long-term benefits and present significant opportunities for California investors and businesses, as upfront capital investments will result in long-term fuel and energy efficiency savings, the benefits of which will continue into the future. The California economy will continue to grow under the Scoping Plan, but it will grow more resilient, more sustainable, and will be well positioned to reap the long-term benefits of lower carbon investments.

Economic Modeling of Health Impacts

Health benefits associated with reductions in diesel particulate matter (DPM) and nitrogen oxides (NO_x) are monetized for inclusion in the macroeconomic modeling. The health benefits are estimated by quantifying the harmful future health effects that will be avoided by reducing human exposure to DPM and NO_x, as detailed in Appendix G, and monetized by estimating a health effect's economic value to society. As previously noted the health impacts are based on air quality benefits estimated in Table 6, which have important limitations and likely overestimate the impacts of the Scoping Plan. Additional detail on the economic modeling of health impacts, including the monetization methodology and modeling results for all Scoping Plan scenarios, is presented in Appendix E. Including the monetized health impacts in the REMI modeling has no discernible impact on the overall results. The impact of including the monetized health impacts is indiscernible relative to the impact of the Scoping Plan.

Estimating the Economic Impact on Disadvantaged Communities (DACs)

Implementing the Scoping Plan is estimated to have a small impact on the Statewide California economy through 2030. However, shifting from fossil fuels can disproportionately affect specific geographic regions whose local economies rely on fossil fuel intensive industries. These regions can also include vulnerable populations and disadvantaged communities who may be disproportionately impacted by poor air quality and climate.

The regional impacts of the Scoping Plan, including the impact to disadvantaged communities, are estimated using the REMI California County model, which represents the 58 counties and 160 sectors of the California economy. Utilizing the same inputs used for modeling the statewide impact of the Scoping Plan relative to the Reference Scenario, the California County model estimates how measures will affect employment, value added, and other economic indicators at the county level across the state.

The county-level REMI output is also used to estimate impacts on disadvantaged communities affected by the Scoping Plan by allocating county impacts proportional to their share of economic indicators unique to each census tract.¹²² These indicators include industry output, industry consumption by fuel category, personal consumption, and population. The overall impact on employment across regions is not significant and there is no discernible difference in the impact to employment in disadvantaged communities. There is also no discernible impact to wages in disadvantaged communities across regions in California. Additional details on the regional modeling, including the results for the Scoping Plan and alternatives, is presented in Appendix E.

In addition to the regional modeling conducted in this analysis, there are currently three research contracts underway at CARB to quantify the impact of California's climate policy on regions and disadvantaged communities throughout California. As mentioned above, researchers from UCLA are estimating the improvements in health outcomes associated with AB 32, with a focus on disadvantaged communities. This research will be informed by input from technical advisory committees including a group focused on environmental justice.

¹²² Census tracts are small geographic areas within greater metropolitan areas that usually have a population between 2,500 and 8,000 persons. More information on the composition of census tracts available here: https://www.census.gov/geo/reference/gtc/gtc_ct.html. Disadvantaged census tracts are identified using CalEnviroScreen 2.0. Additional information is available at: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-version-20>.

There are also two studies currently underway to quantify the impact of GGRF funds. A UCLA contract focuses on quantifying jobs supported by GGRF funds in California, while a University of California, Berkeley contract is constructing methodologies to assess the co-benefits of GGRF projects across California. These research efforts will provide a regional analysis of the impact of and benefits to specific communities and sectors to ensure that all Californians see economic benefits, in addition to clean air benefits, from the implementing the Scoping Plan.

Public Health

Many measures to reduce GHG emissions also have significant health co-benefits that can address climate change and improve the health and well-being of all populations across the State. Climate change is already affecting the health of communities.¹²³ Climate-related health impacts can include increased heat illness and death, increases in air pollution-related exacerbation of cardiovascular and respiratory diseases, injury and loss of life due to severe storms and flooding, increased vector-borne and water-borne diseases, and stress and mental trauma due to extreme weather-related catastrophes.¹²⁴ The urgency of action to address the impacts already being felt from a changing climate and the threats in coming decades provides a unique opportunity for California's leadership in climate action to reduce GHG emissions and create healthy, equitable, and resilient communities where all people thrive. This section discusses the link between climate change and public health. It does not analyze the specific measures included in the strategy but provides context for assessing the potential measures and scenarios.

Achieving Health Equity through Climate Action

Many populations in California face *health inequities*, or unfair and unjust health differences between population groups that are systemic and avoidable.¹²⁵ Differences in environmental and socioeconomic determinants of health result in these health inequities. Those facing the greatest health inequities include low-income individuals and households, the very young and the very old, communities of color, and those who have been marginalized or discriminated against based on gender or race/ethnicity.¹²⁶ It is these very same populations, along with those suffering existing health conditions and certain populations of workers (e.g., outdoor workers), that climate change will most disproportionately impact.¹²⁷ The inequitable distribution of social, political, and economic power results in health inequities, while perpetuating systems (e.g., economic, transportation, land use, etc.) that drive GHG emissions. As a result, communities face inequitable living conditions. For example, low-income communities of color tend to live in more polluted areas and face climate change impacts that can compound and exacerbate existing sensitivities and vulnerabilities.^{128,129} Fair and healthy climate action requires that the inequities creating and intensifying community vulnerabilities be addressed. Living conditions and the forces that shape them, such as income, education, housing, transportation, environmental quality, and access to services, significantly drive the capacity for climate resilience. Thus, strategies such as alleviating poverty, increasing access to opportunity, improving living conditions, and reducing health and social inequities will result in more climate-resilient communities. In fact, there are already many "no-regret" climate mitigation and adaptation measures available (discussed below) that can reduce health burdens, increase community resilience, and address social inequities.¹³⁰ Focusing efforts to achieve health equity can thus lead to significant progress in addressing human-caused climate change.

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124 Ibid.

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Potential Health Impacts of Climate Change Mitigation Measures

Socioeconomic Factors: Income, Poverty, and Wealth

Economic factors, such as income, poverty, and wealth, are collectively one of the largest determinants of health. As such, climate mitigation measures that yield economic benefits can improve population health significantly, especially if the economic benefits are directed to those most vulnerable and disadvantaged (including those living in poverty) who often face the most health challenges. From the poorest to richest ends of the income spectrum, higher income is associated with greater longevity in the United States.^{131,132,133} The gap in life expectancy between the richest 1 percent and poorest 1 percent of Americans was almost 15 years for men in 2014, and about 10 years for women.¹³⁴ Early death among those living in poverty is not a result of those with higher incomes having better access to quality health care.¹³⁵ Only about 10-20 percent of a person's health status is accounted for by health care (and 20-30 percent attributed to genetics), while the remainder is attributed to the social determinants of health. These include environmental quality, social and economic circumstances, and the social, media, policy, economic, retail, and built environments— all of which in turn shape stress levels and behaviors, including smoking, diet, and exercise.^{136,137,138,139,140,141,142,143,144,145,146} In fact, where people live, work, learn, and play is often a stronger predictor of life expectancy than their genetic and biological makeup.¹⁴⁷ The World Health Organization's Commission on the Social Determinants of Health concluded that the poor health of poor people, and the social gradient in health, are caused by the unequal distribution of power, income, goods, and services resulting from poor social policies and programs, unfair economic arrangements, and bad politics.¹⁴⁸ Thus, improving the conditions of daily life and tackling the inequitable distribution of power, money, and resources can remedy inequitable health outcomes.¹⁴⁹ Simply put, the more evenly distributed the wealth, the healthier a society is.¹⁵⁰

The wealth-health gradient has significant implications for this Scoping Plan. State climate legislation and policies require prioritizing GHG reduction strategies that serve vulnerable populations and improve well-being for disadvantaged communities. As such, strategies that improve the financial security of communities facing disadvantages while reducing GHG emissions are win-win strategies. These include providing funds or services for GHG reduction programs (e.g., weatherization, energy efficiency, renewable energy, ZEVs, transit, housing, and others) to low-income individuals and households to help them reduce costs. Among the poorest 25 percent of people, per capita government expenditures are strongly associated with longer

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148 Marmot M, Friel S, Bell R, et al. 2008. Closing the gap in a generation: health equity through action on the social determinants of health. The Lancet , Volume 372 , Issue 9650, 1661 – 1669

149 Ibid.

150 Smith, R. 1996. "The big idea." British Medical Journal 312:April 20th, Editor's choice.

life spans.¹⁵¹ Successful strategies California has already implemented to assure the poor do not pay higher costs for societal GHG reductions include low-income energy discount programs, in combination with direct climate credits, and policies and programs that help Californians reduce electricity, natural gas, and gasoline consumption.¹⁵² More such strategies could be pursued. To tackle the inequitable distribution of power that leads to disparate health outcomes, agencies can first assure their hearing and decision-making processes provide opportunities for civic engagement so people facing health inequities can themselves participate in decision-making about solutions. Whether it is absolute poverty or relative deprivation that leads to poor health, investments and policies that both lift up the poor and reduce wealth disparities will address the multiple problems of climate change mitigation, adaptation, and health inequities.

Employment

Employment status impacts human health in many ways. Poor health outcomes of unemployment include premature death, self-rated ill-health (a strong predictor of poor health outcomes), and mental illness.^{153,154,155,156} Economic strain related to unemployment can impact mental health and trigger stress that is linked to other health conditions.^{157,158} Populations of color are overrepresented in the unemployment and under-employment ranks, which likely contributes to racial health inequities. In 2014, 14.7 percent of African-Americans, 12.1 percent of American Indians and Alaska Natives, and 9.8 percent of Latinos were unemployed, compared to 7.9 percent of Whites.¹⁵⁹ In addition to providing income, the work experience has health consequences. There is a *work status–health gradient* similar to the wealth–health gradient. Workers with lower occupational status have a higher risk of death,¹⁶⁰ increased blood pressure,¹⁶¹ and more heart attacks.^{162,163} Higher status workers often have a greater sense of autonomy, control over their work, and predictability, compared to lower status workers, whose lack of control and predictability translates to stress that shortens their lives.¹⁶⁴ Nonstandard working arrangements such as part-time, seasonal, shift, contract, or informal sector work have been linked to greater psychological distress and poorer physical health.^{165,166} Women are heavily overrepresented in nonstandard work, as are people of color and people with low levels of education.^{167,168}

The implementation of California’s climate change goals provides great opportunity to not only improve the habitability of the planet, but also to increase economic vitality, employ historically disadvantaged people

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in secure jobs, and improve the health of the population. Measures in the Scoping Plan that aim to reduce GHGs can simultaneously improve health and social equity by prioritizing or requiring that: (1) infrastructure projects using public funds pay living wages, provide quality benefits to all employees, and minimize nonstandard work; (2) locals are hired as much as is feasible; (3) preference is given for women-owned and minority-owned businesses; (4) employers receiving public funds assess and reduce work stress and lack of workplace control; (5) projects benefiting from State climate investments prioritize hiring from historically hard-to-employ groups, such as youth (especially youth of color), formerly incarcerated people, and people with physical or mental illness; and (6) training is provided to these same groups to work in jobs in sectors that will support a sustainable economy.

Communications Supporting Climate Change Behaviors and Policies

California's leadership on GHG reductions is exceptional. However, climate mitigation goals are often treated independently by sector, and the public does not see a unified message that changes must take place on every level in every sector to preserve human health and well-being. Climate strategy could be supported by public communications campaigns that link sectors and present a message of the need for bold action, along with the benefits that action can yield. Mass media communications and social marketing campaigns can help shift social and cultural norms toward sustainable and healthy practices. Messaging about the co-benefits of climate change policies in improving health and well-being can lead to increased community and decision-maker support among vulnerable groups for policies and measures outlined in the Scoping Plan.

Community Engagement Leads to Robust, Lasting, and Effective Climate Policies

For California's climate change policies to be supported by the public and be implemented with enthusiasm, they must be developed through ample, genuine opportunities for community members to discuss and provide input. Californians' contributions to the policy arena strengthen the end products and assist in their implementation and enforcement.

Efforts to mitigate climate change through policy, environmental, and systems change present considerable opportunities to promote sustainable, healthy, resilient, and equitable communities. The measures in the Scoping Plan, and the way they are implemented, can help create living conditions that facilitate physical activity; encourage public transit use; provide access to affordable, fresh, and nutritious foods; protect the natural systems on which human health depends; spur economic development; provide safe, affordable, and energy-efficient housing; enable access to jobs; and increase social cohesion and civic engagement. These climate change mitigation measures can improve overall population health, as well as material conditions, access to opportunity, and health and well-being in communities facing health inequities. Approaching the policy solutions outlined in the Scoping Plan with a health and equity lens can ultimately help lead to a California in which all current and future generations of Californians can benefit and thrive.

Environmental Analysis

CARB, as the lead agency, prepared a Draft Environmental Analysis (Draft EA) in accordance with the requirements of the California Environmental Quality Act (CEQA) and CARB's regulatory program (CARB's program has been certified as complying with CEQA by the Secretary of Natural Resources; see California Code of Regulation, title 17, sections 60006-60008; California Code of Regulation, title 14, section 15251, subdivision (d)). The resource areas from the CEQA Guidelines Environmental Checklist were used as a framework for a programmatic environmental analysis of the reasonably foreseeable compliance responses resulting from implementation of the measures proposed in the Scoping Plan to achieve the 2030 target. Following circulation of the Draft EA for an 80-day public review and comment period (January 20, 2017 through April 10, 2017), CARB prepared the Final Environmental Analysis Prepared for the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target (Final EA), which includes minor revisions to the Draft EA, and the Response to Comments on the Draft Environmental Analysis prepared for the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target (RTC). The Final EA is included as Appendix F to the 2017 Scoping Plan. The Final EA and RTC were posted on CARB's Scoping Plan webpage before the Board hearing in December 2017.

The Final EA provides a programmatic level of analysis of the adverse environmental impacts that are reasonably foreseeable as resulting from implementation of the proposed Scoping Plan measures; feasible mitigation measures; a cumulative impacts analysis and an alternatives analysis.

Collectively, the Final EA concluded that implementation of these actions could result in the following short-term and long-term beneficial and adverse environmental impacts:

- Beneficial long-term impacts to air quality, energy demand and greenhouse gas emissions.
- Less than significant impacts to energy demand, resources related to land use planning, mineral resources, population and housing, public services, and recreational services.
- Potentially significant and unavoidable adverse impacts to aesthetics, agriculture and forest resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, resources related to land use planning, noise, recreational services, transportation/traffic, and utilities and service systems.

The potentially significant and unavoidable adverse impacts are disclosed for both short-term construction-related activities and long-term operational activities, which explains why some resource areas are identified above as having both less-than-significant impacts and potentially significant impacts. For a summary of impacts, please refer to the table in Attachment B to the Final EA.

Chapter 4

KEY SECTORS

Climate change mitigation policies must be considered in the context of the sector's contribution to the State's total GHGs, while also considering any co-benefits for criteria pollutant and toxic air contaminant reductions. The transportation, electricity (in-state and imported), and industrial sectors are the largest contributors to the GHG inventory and present the largest opportunities for GHG reductions. However, to ensure decarbonization across the entire economy and to meet our 2030 GHG target, policies must be considered for all sectors. Policies that support energy efficiency, alternative fuels, and renewable power also can provide co-benefits for both criteria and toxic air pollutants.

The specific policies identified in this Scoping Plan are subject to additional analytical and public processes to refine the requirements and methods of implementation. For example, a change in the LCFS Carbon Intensity (CI) target would only take effect after a subsequent rulemaking for that regulation, which would include its own public process and environmental, economic, and public health analyses. As described in Chapter 2, many policies for reducing emissions toward the 2030 target are already known. This Scoping Plan identifies these and additional policies or program enhancements needed to achieve the remaining GHG reductions in a complementary, flexible, and cost-effective manner to meet the 2030 target. These policies should continue to encourage reductions beyond 2030 to keep us on track to stabilize the climate. Policies that ensure economy-wide investment decisions that incorporate consideration of GHG emissions are particularly important.

As we pursue GHG reduction targets, we must acknowledge the integrated nature of our built and natural environments, and cross-sector impacts of policy choices. The State's Green Buildings Strategy is one such example of this type of integrated approach. Buildings have tremendous cross-sector interactions that influence our health and well-being and affect land use and transportation patterns, energy use, water use, communities, and the indoor and outdoor environment. Green building regulations and programs offer complementary opportunities to address the direct and indirect effects of buildings on the environment by incorporating strategies to minimize overall energy use, water use, waste generation, and transportation impacts. The Governor's Green Buildings Executive Order B-18-12 for State buildings and the California Green Building Standards (CALGreen) Code¹⁶⁹ are key state initiatives supporting emissions reductions associated with buildings. Local governments are taking action by adopting "beyond code" green building standards. Additional efforts to maintain and operate existing buildings as third-party certified green buildings provides a significant opportunity to reduce GHG emissions associated with buildings. These foundational regulations and programs for reducing building-related emissions are described in more detail in Appendix H. Looking forward, there is a need to establish a path toward transitioning to zero net carbon buildings¹⁷⁰, which will be the next generation of buildings that can contribute significantly to achieving long-term climate goals. A discussion of how the green buildings strategy can support GHG reductions to help meet the 2030 target is provided in Appendix I. Recent research activities have provided results to better quantify GHG emissions reductions of green buildings, and additional research activities need to continue to expand their focus to support technical feasibility evaluations and implementation. Research needs related to green buildings are included in Appendix I.

Further, each of the policies directed at the built environment must be considered in the broader context of the high-level goals for other sectors, including the natural and working lands sector. For example, policies that support natural and working lands can reduce emissions and sequester carbon, while also providing ecosystem benefits such as better water quality, increased water yield, soil health, reduced erosion, and

¹⁶⁹ The authority to update and implement the CALGreen Code is the responsibility of several State agencies identified in California Building Standards Law.

¹⁷⁰ A zero carbon building generates zero or near zero GHG emissions over the course of a year from all GHG emission sources associated, directly and indirectly, with the use and occupancy of the building (initial definition included in the May 2014 *First Update to the Climate Change Scoping Plan*).

habitat connectivity. These policies and co-benefits will be considered as part of the integrated strategy outlined above. Table 16 provides examples of the cross-sector interactions between and among the main sectors analyzed for the Scoping Plan that are discussed in this chapter (Energy, Transportation, Industry, Water, Waste Management, and Natural and Working Lands, including agricultural lands).

This chapter recognizes these interactions and relates these broad strategic options to the specific additional programs recommended in Chapter 2 of this document. Accordingly, Chapter 4 provides an overview of each sector's contributions to the State's GHG emissions, a description of both ongoing and proposed programs and policies to meet the 2030 target, and additional climate policy or actions that could be considered in the future. The wide array of complementary and supporting measures being contemplated or undertaken across State government are detailed here. The broad view of State action described in this chapter thus provides context for the narrower set of measures discussed in detail in Chapter 2 of this Scoping Plan. It is these measures in Chapter 2 that CARB staff has identified as specific actions to meet the 2030 target in SB 32.

The following phrases have specific meanings in this discussion of the policy landscape: "Ongoing and Proposed Measures" refers to programs and policies that are either ongoing existing efforts, or efforts required by statute, or which are otherwise underway or about to begin. These measures include, but are not limited to, those identified as necessary specific actions to meet the 2030 GHG target, and which are set apart and described in greater detail in Chapter 2. "Sector Measures" listed also include cross-cutting measures that affect many entities in the sector; some of these are also identified in Chapter 2. "Potential Additional Actions" are not being proposed as part of the specific strategy to achieve the 2030 target in this Scoping Plan. This Scoping Plan includes this broader, comprehensive, review of these measures because it aims to spur thinking and exploration of innovative new technologies and policies that may help the State achieve its long-term climate goals. Some of these items may not ever be formally proposed, but they are included here because CARB, other agencies, and stakeholders believe their potential should be explored with stakeholders in coming years.

TABLE 16: CROSS-SECTOR RELATIONSHIPS

Sector	Example Interactions with Other Sectors
 <p>Energy</p>	<ul style="list-style-type: none"> • Hydroelectric power, cooling, cleaning, waste water treatment plant (WWTP) bioenergy • Vehicle-to-grid power; electricity supply to vehicle charging infrastructure • Biomass feedstock for bioenergy, land for utility-scale renewable energy (solar, wind) • Agricultural waste and manure feedstocks for bioenergy/biofuels • Organic waste for bioenergy
 <p>Transportation</p>	<ul style="list-style-type: none"> • Electric vehicles, natural gas vehicles, transit/rail; more compact development patterns that reduce vehicle miles traveled (VMT) also demand less energy per capita • More compact development patterns that reduce VMT also demand less water per capita and reduce conversion of natural and working lands • Reducing VMT also reduces energy demands necessary for producing and distributing fuels and vehicles and construction and maintenance of roads • Biomass feedstock for biofuels • Agricultural waste and manure feedstocks for biofuels • Organic waste for biofuels • Greenfield suburban development on natural and working lands leads to increased VMT
 <p>Industry</p>	<ul style="list-style-type: none"> • Potential to electrify fossil natural gas equipment, substitution of fossil-based energy with renewable energy • Greenfield urban development impacts
 <p>Water</p>	<ul style="list-style-type: none"> • Energy consumption for water pumping, treatment, heating; resource for cooling, cleaning; WWTP bioenergy • Use of compost to help with water retention / conservation / drought mitigation • Land conservation results in healthier watersheds by reducing polluted runoff, allowing groundwater recharge, and maintaining properly functioning ecosystems
 <p>Waste Management</p>	<ul style="list-style-type: none"> • Composting, anaerobic digestion, and wastewater treatment plant capacity to help process organic waste diverted from landfills • Compost for carbon sequestration, erosion control in fire-ravaged lands, water conservation, and healthy soils • Replacing virgin materials with recycled materials associated with goods production; enhanced producer responsibility reduces energy impacts of consumption • Efficient packaging materials reduces energy consumption and transportation fuel use
 <p>Agriculture</p>	<ul style="list-style-type: none"> • Crop production, manure management; WWTP biosolids for soil amendments • Agricultural waste and manure feedstocks for bioenergy • Compost production in support of Healthy Soils Initiative
 <p>Natural and Working Lands</p>	<ul style="list-style-type: none"> • Healthy forestlands provide wood and other forest products • Restoring coastal and sub-tidal areas improves habitat for commercial and other fisheries • Sustainable management can provide biomass for electricity • Sustainable management can provide biomass for biofuels • Resilient natural and working lands provide habitat for species and functions to store water, recharge groundwater, naturally purify water, and moderate flooding. Forests are also a source of compost and other soil amendments. • Conservation and land protections help reduce VMT and increase stable carbon pools in soils and above-ground biomass

Low Carbon Energy

The energy sector in California is composed of electricity and natural gas infrastructure, which brings electricity and natural gas to homes, businesses, and industry. This vast system is critical to California's economy and public well-being, and pivotal to reducing its GHG emissions.

Historically, power plants generated electricity largely by combusting fossil fuels. In the 1970s and early 1980s, a significant portion of California's power supply came from coal and petroleum resources. To reduce air pollution and promote fuel diversity, the State has shifted away from these resources to natural gas, renewable energy, and energy efficiency programs, resulting in significant GHG emissions reductions. Emissions from the electricity sector are currently approximately 20 percent below 1990 levels and are well on their way to achieving deeper emissions cuts by 2030. Since 2008, renewable generation has almost doubled, coal generation has been reduced by more than half, and GHG emissions have been reduced by a quarter.

Carbon dioxide is the primary GHG associated with electricity and natural gas systems. The electricity sector, which is composed of in-State generation and imported power to serve California load, has made great strides to help California achieve its climate change objectives. Renewable energy has shown tremendous growth, with capacity from solar, wind, geothermal, small hydropower, and biomass power plants growing from 6,600 megawatts (MW) in 2010 to 27,500 MW as of June 2017.¹⁷¹

Renewable energy adoption in California has been promoted through the RPS and several funding mechanisms, such as the California Solar Initiative (CSI) programs, Self-Generation Incentive Program (SGIP), Net-Energy Metering (NEM), and federal tax credits. These mandates and incentives have spurred both utility-scale and small-scale customer-developed renewable energy projects. SB 350 increased the RPS requirement from 33 percent by 2020 to 50 percent by 2030.

SB 350 requires publicly-owned utilities under the jurisdiction of the California Energy Commission (CEC) and all load-serving entities under the jurisdiction of the California Public Utilities Commission (CPUC) to file integrated resource plans (IRPs) with the CEC and CPUC, respectively. Through their IRPs, filing entities will demonstrate how they will plan to meet the electricity sector's share of the State's 2030 GHG reduction target while ensuring reliability in a cost-effective manner. The CEC and CPUC have developed the guidelines that publicly-owned utilities and load-serving entities will follow to prepare and submit IRPs, and CARB is working collaboratively with CEC and CPUC to set the sector and utility and load-serving entity planning targets. The Scoping Plan provides information to help establish the range of GHG reductions required for the electricity sector, and those numbers will be translated into planning target ranges in the IRP process. The IRP processes as currently proposed by CEC and CPUC staff will grant publicly-owned utilities flexibility to determine the optimal way to reduce GHG emissions, and load serving entities some flexibility to achieve the electricity sector's share of the 2030 goal. The CPUC has developed a Reference System Plan to help guide investment, resource acquisition, and programmatic decisions to reach the State's policy goals, in addition to informing the development of individual load serving entities' IRPs.

Energy efficiency is another key component to reducing energy sector GHG emissions, and is another consideration in each agency's IRP process. Utilities have been offering energy efficiency programs, such as incentives, to California customers for decades, and CEC has continually updated building and appliance standards. In the context of IRPs, utility-ratepayer-funded energy efficiency programs will likely continue to play an important role in reducing GHG emissions in the electricity sector.

SB 350 requires CEC and CPUC to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030. These targets can be achieved through appliance and building energy efficiency standards; utility incentive, rebate, and technical assistance programs; third-party delivered energy efficiency programs; and other programs. Achieving greater efficiency savings in existing buildings, as directed by Governor Brown in his 2015 inaugural speech, will be essential to meet the goal of doubling energy efficiency savings. In September 2015, CEC adopted the Existing Buildings Energy Efficiency Action Draft Plan, which is designed to provide foundational support and strategies to enable scaling of energy efficiency in the built environment. Pursuant to SB 350, CEC published an updated Existing Buildings Energy Efficiency Action Plan prior to January 2017. More than \$10 billion in private capital investment will be needed

¹⁷¹ California Energy Commission. August, 2017. Tracking Progress. Renewable Energy – Overview. http://www.energy.ca.gov/renewables/tracking_progress/documents/renewable.pdf

to double statewide efficiency savings in California.¹⁷² Energy efficiency programs are one part of the broader green buildings strategy, which incorporates additional measures to minimize water use, waste generation, and transportation impacts. The green buildings strategy is described in further detail in Appendix I.

Heating fuels used for activities such as space and water heating in the residential, commercial, and industrial sectors represent a significant source of GHG emissions. Transitioning to cleaner heating fuels is part of the solution of achieving greater efficiency savings in existing buildings and has significant GHG emissions reductions potential. Examples of this transition can include use of renewable gas and solar thermal, as well as electrification of end uses in residential, commercial, and industrial sectors. However, achieving significant GHG emissions reductions can only be achieved by decarbonizing the electricity sector – switching from natural gas end uses to electricity generated by burning natural gas would not be effective. Electrification can complement renewables and energy storage if implemented in an integrated, optimized manner. Other hurdles that will have to be overcome include electric equipment performance across all California climate regions, seasonal variations of renewable generation, cost-effectiveness, and consumer acceptance of different heating fuel options.

Fossil-fuel-based natural gas is a significant fuel source for both in-State electricity generation and electricity imported into California. It is also used in transportation applications and in residential, commercial, industrial, and agricultural sector end uses. Greenhouse gas emissions from combustion of fossil natural gas decreased from 134.71 MMTCO₂e in 2000 to 126.98 MMTCO₂e in 2015, while natural gas pipeline fugitive emissions were estimated to be 4.0 MMTCO₂e in 2015 and have been nearly unchanged since 2000.¹⁷³ Greenhouse gas-reduction strategies should focus on efficiency, reducing leakage from wells and pipelines, implementing the SLCP strategy, and studying the potential for renewable gas fuel switching (e.g., renewable hydrogen blended with methane or biomethane).

Moving forward, reducing use of fossil natural gas wherever possible will be critical to achieving the State's long-term climate goals. For end uses that must continue to rely on natural gas, renewable natural gas could play an important role. Renewable natural gas volume has been increasing from approximately 1.5 million diesel gallon equivalent (dge) in 2011 to more than 68.5 million dge in 2015, and continued substitution of renewable gas for fossil natural gas would help California reduce its dependence on fossil fuels. In addition, renewable gas can be sourced by in-vessel waste digestion (e.g., anaerobic digestion of food and other organics) and recovering methane from landfills, livestock operations, and wastewater treatment facilities through the use of existing technologies, thereby also reducing methane emissions. The capture and productive use of renewable methane from these and other sources is consistent with requirements of SB 1383.

Collectively, renewable energy and energy efficiency measures can result in significant public health and climate benefits by displacing air pollution and GHG emissions from fossil-fuel based energy sources, as well as by reducing the health and environmental risks associated with the drilling, extraction, transportation, and storage of fossil fuels, especially for communities living near fossil-fuel based energy operations.

As the energy sector continues to evolve and decarbonize, both the behavior of individual facilities and the design of the grid itself will change, with important distributional effects. Some power plants may operate more flexibly to balance renewables, emerging technologies (examples include storage, smart inverters, renewably-fueled fuel cells, and others) will become more prevalent, and aging facilities may retire and be replaced. In turn, this may shift patterns of criteria pollutant emissions at these facilities. Because many existing power plants are in, or near, disadvantaged communities, it is of particular importance to ensure that this transition to a cleaner grid does not result in unintended negative impacts to these communities.

Appendix H highlights the more significant existing policies, programs, measures, regulations, and initiatives that provide a framework for helping achieve GHG emissions reductions in this sector.

172 California Energy Commission. 2016. Existing Building Energy Efficiency Action Plan. page 61. Available at: http://docketpublic.energy.ca.gov/PublicDocuments/16-EBP-01/TN214801_20161214T155117_Existing_Building_Energy_Efficiency_Plan_Update_Deceber_2016_Thi.pdf

173 CARB. 2017. CARB's Emission Inventory Activities. www.arb.ca.gov/ei/ei.htm

Looking to the Future

This section outlines the high-level objectives and goals to reduce GHGs in this sector.

Electricity Goals

- Achieve sector-wide, publicly-owned utility, and load-serving entity specific GHG reduction planning targets set by the State through Integrated Resource Planning.
- Reduce fossil fuel use.
- Reduce energy demand.

Natural Gas Goals

- Ensure safety of the natural gas system.
- Decrease fugitive methane emissions.
- Reduce dependence on fossil natural gas.

Cross-Sector Interactions

The energy sector interacts with nearly all sectors of the economy. Siting of power plants (including solar and wind facilities) and transmission and distribution lines have impacts on land use in California—be it conversion of agricultural or natural and working lands, impacts to sensitive species and habitats, or implications to disadvantaged, vulnerable, and environmental justice communities. Additionally, more compact development patterns reduce per capita energy demands, while less-compact sprawl increases them. Further, efforts to reduce GHG emissions in the transportation sector include electrification, such as PHEVs, BEVs, and FCEVs. Some industrial sources also use electricity as a primary or auxiliary source of power for manufacturing. In the future, industrial facilities may electrify their systems instead of relying on natural gas. These activities will increase demand in this sector. In addition, water is used in various applications in the energy sector, ranging in intensity from cooling of turbines and other equipment at power plants to cleaning solar photovoltaic panels. Given California's recent historic drought, water use for the electricity sector is an important consideration for operation, maintenance, and construction activities.

Continued planning and coordination with federal, State, and local agencies, governments, Tribes, and stakeholders will be crucial to minimizing environmental and health impacts from the energy sector, deploying new technologies, and identifying feedstocks.

Efforts to Reduce Greenhouse Gases

The measures below include some required and new potential measures to help achieve the State's 2030 target and to support the high-level objectives for this sector. Some measures may be designed to directly address GHG reductions, while others may result in GHG reductions as a co-benefit.

Ongoing and Proposed Measures – Electricity

- Per SB 350, with respect to Integrated Resource Plans, establish GHG planning targets for the electricity sector, publicly-owned utilities, and load-serving entities.
- Per SB 350, ensure meaningful GHG emissions reductions by publicly-owned utilities and load-serving entities through Integrated Resource Planning.
- Per AB 197, prioritize direct reductions at large stationary sources, including power-generating facilities.
- Per SB 350, increase the RPS to 50 percent of retail sales by 2030 and ensure grid reliability.
- Per Governor Brown's Clean Energy Jobs Plan, AB 327 (Perea, Chapter 611, Statutes of 2013), and AB 693 (Eggman, Chapter 582, Statutes of 2015), increase development of distributed renewable generation, including for low income households.
- Continue to increase use of distributed renewable generation at State facilities where space allows.
- Increase retail customers' use of renewable energy through optional utility 100 percent renewable energy tariffs.
- Continue GHG reductions through participation in the California Independent System Operator (CAISO) Energy Imbalance Market.

- Per SB 350, efforts to evaluate, develop, and deploy regionalization of the grid and integration of renewables via regionalization of the CAISO should continue while maintaining the accounting accuracy and rigor of California’s GHG policies.
- Per SB 350, establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.
- Per SB 350, implement the recommendations of the Barriers Study for increasing access to renewable energy generation for low-income customers, energy efficiency and weatherization investments for low-income customers, and contracting opportunities for local small business in disadvantaged communities.¹⁷⁴ And, track progress towards these actions over time to ensure disadvantaged communities are getting equal access and benefits relative to other parts of the State.
- Continue implementation of the Regulations Establishing and Implementing a Greenhouse Gases Emission Performance Standard for Local Publicly Owned Electric Utilities as required by SB 1368 (Perata, Chapter 598, Statutes of 2006), which effectively prohibits electric utilities from making new long-term investments in high-GHG emitting resources such as coal power.
- Per AB 802 (Williams, Chapter 590, Statutes of 2015), adopt the forthcoming CEC regulations governing building energy use data access, benchmarking, and public disclosure.
- Per AB 2868 (Gatto, Chapter 681, Statutes of 2016), encourage development of additional energy storage capacity on the transmission and distribution system.
- Per AB 758 (Skinner, Chapter 470, Statutes of 2009),¹⁷⁵ implement recommendations under State jurisdiction included in the AB 758 Action Plan developed by CEC.

Ongoing and Proposed Measures – Natural Gas

- Implement the CARB Regulation for Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities to reduce fugitive methane emissions from storage and distribution infrastructure.
- Per SB 1371 (Leno, Chapter 525, Statutes of 2014), adopt improvements in investor-owned utility (IOU) natural gas systems to address methane leaks.
- Implement the SLCP Strategy to reduce natural gas leaks from oil and gas wells, pipelines, valves, and pumps to improve safety, avoid energy losses, and reduce methane emissions associated with natural gas use.
- Per SB 1383, CEC will develop recommendations for the development and use of renewable gas as part of its 2017 Integrated Energy Policy Report (IEPR).
- Per SB 1383, adopt regulations to reduce methane emissions from livestock manure and dairy manure management operations by up to 40 percent below the dairy sector’s and livestock sector’s 2013 levels by 2030, including establishing energy infrastructure development and procurement policies needed to encourage dairy biomethane projects. The regulations will take effect on or after January 1, 2024.
- Per SB 1383, reduce methane emissions at landfills by reducing landfill disposal of organic waste 75 percent below 2014 levels by 2025, including establishing energy infrastructure development and procurement policies needed to encourage in-vessel digestion projects and increase the production and use of renewable gas.
- Per SB 887 (Pavley, Chapter 673, Statutes of 2016), initiate continuous monitoring at natural gas storage facilities and (by January 1, 2018) mechanical integrity testing regimes at gas storage wells, develop regulations for leak reporting, and require risk assessments of potential leaks for proposed new underground gas storage facilities.
- Per Public Utilities (PU) Code 454.56, CPUC, in consultation with CEC, (1) identifies all potentially achievable cost-effective natural gas efficiency savings and establishes gas efficiency targets for the gas corporation to achieve, and (2) requires gas corporations to first meet unmet resource needs through available natural gas efficiency and demand reduction resources that are cost-effective, reliable, and feasible (PU Codes 890–

174 CEC. 2016. Low-Income Barriers Study, Part A: Overcoming Barriers to Energy Efficiency and Renewables for Low-Income Customers and Small Business Contracting Opportunities in Disadvantaged Communities. http://docketpublic.energy.ca.gov/PublicDocuments/16-OIR-02/TN214830_20161215T184655_SB_350_LowIncome_Barriers_Study_Part_A__Commission_Final_Report.pdf

175 AB 758 requires CEC, in collaboration with CPUC, to develop a comprehensive program to achieve greater energy efficiency in the State’s existing buildings.

- 900 provide public goods charge funding authorization for these programs).
- Per SB 185 (De Leon, Chapter 605, Statutes of 2015), implement the requirement for the California Public Employees' Retirement System (CalPERS) and the California State Teachers' Retirement System (CalSTRS) to sell their holdings in coal-producing companies by June 1, 2017, and explore extending divestiture requirements for additional fossil-fuel assets.

Sector Measures

- Implement the post-2020 Cap-and-Trade Program.

Potential Additional Actions

The actions below have the potential to reduce GHGs and complement the measures and policies identified in Chapter 2. These are included to spur thinking and exploration of innovation that may help the State achieve its long-term climate goals. It is anticipated that there will be workshops and other stakeholder forums in the years following finalization of the Scoping Plan to explore these potential actions.

- Further deploy fuel cells that use renewable fuels or those that generate electricity that is less carbon intensive than the grid.
- Increase use of renewable energy through long-term agreements between customers and utilities (such as Sacramento Municipal Utility District Solar Shares).
- Develop rules needed for the development of electricity storage technologies.
- Adopt a zero net energy (ZNE) standard for residential buildings by 2018/2019, and for commercial buildings by 2030.
- Through a public process, evaluate and set targets for the electrification of space and water heating in residential and commercial buildings and cleaner heating fuels that will result in GHG reductions, and identify actions that can be taken to spur market transformation in the 2021-2030 period.
- Expand the State Low-Income Weatherization Program (LIWP) to continue to improve energy efficiency and weatherize existing residential buildings, particularly for low-income individuals and households.
- Decrease usage of fossil natural gas through a combination of energy efficiency programs, fuel switching, and the development and use of renewable gas in the residential, commercial, and industrial sectors.
- Accelerate the deployment of heat pumps and the replacement of diesel generators.
- Consider enhanced energy efficiency (high efficiency air conditioners, light-emitting diode (LED) lamps, efficiency improvements in industrial process cooling and refrigeration, efficient street lighting).
- Promote programs to support third-party delivered energy efficiency projects.
- Per AB 33 (Quirk, Chapter 680, Statutes of 2016), consider large-scale electricity storage.
- Support more compact development patterns to promote reduced per capita energy demand (see the Transportation sector for specific policy recommendations).

Industry

California's robust economy, with the largest manufacturing sector in the United States, is supported by a variety of sub-industrial sectors, some of which include cement plants, refineries, food processors, paper products, wineries, steel plants, and industrial gas, entertainment, technology and software, aerospace, and defense companies. Together, industrial sources account for approximately 21 percent of the State's GHG emissions—almost equal to the amount of GHG emissions from the energy sector. Emissions in this sector are mainly due to fuel combustion and, in some industries, process-related emissions. Changes in this sector strongly correlate with changes in the overall economy. For example, housing and construction growth usually increases demand for cement. Moving toward a cleaner economy and ensuring we meet the statewide targets requires us to address GHG emissions in this sector, which has the potential to provide local co-benefits in criteria pollutant and toxic air contaminant reductions in immediate surrounding locations, especially in vulnerable communities. At the same time, we must ensure there is a smooth path to a cleaner future to support a resilient and robust economy with a strong job force, including training opportunities for workers in disadvantaged communities, while continuing to support economic growth in existing and new industries.

Greenhouse gas emissions in the Industrial sector have remained relatively flat for the last few years while the State's economy has continued to grow, meaning the GHG emissions to produce each dollar of gross standard product is decreasing. Manufacturing accounts for approximately 10 percent of the gross state product.¹⁷⁶ In 2016, California industry exported \$163.6 billion in merchandise.¹⁷⁷

Policies to address GHG emissions reductions must continue to balance the State's economic well-being with making progress toward achievement of the statewide limits.

As this sector is dominated by combustion-related emissions, policies and measures to supply cleaner fuels and more efficient technology are the key to reducing GHG emissions. Some sectors, such as cement and glass, also have significant process emissions, and it may be more challenging to address those process emissions, as they are related to chemical reactions and processes to meet safety, product-specific, or regulatory standards for the final products. Another important aspect for this sector is its role as the State transitions to a cleaner future. Infrastructure, including existing facilities and new facilities, can support the production of new technology to bolster the State's efforts to address GHGs. For example, existing refineries have an opportunity to move away from fossil fuel production and switch to the production of biofuels and clean technology. As the State works to double energy efficiency in existing buildings, there will be an increased demand for efficient lighting fixtures, building insulation, low-e¹⁷⁸ coatings for existing windows, or new windows—goods which could be produced in California. The predominant paths to reducing GHG emissions for the Industrial sector are: fuel switching, energy efficiency improvements, and process modifications. Carbon capture and sequestration also offers a potential new, long-term path for reducing GHGs for large stationary sources.

Relocation of production to outside the State would also reduce emissions, but this is disadvantageous for a couple of reasons and efforts are needed to avoid this outcome. First, AB 32 requires the State's climate policies to minimize emissions leakage, and relocation would shift GHG emissions outside of the State without the benefit of reducing pollutants that contribute to overall global warming impacts. Second, it could also reduce the availability of associated jobs and could impact a local tax base that supports local services such as public transportation, emergency response, and social services, as well as funding sources critical to protecting the natural environment and keeping it available for current and future generations.

Even while we continue to seek further GHG reductions in the sector, it is important to recognize the State has a long history of addressing health-based air pollutants in this sector. Many of the actions for addressing criteria pollutants and toxic air contaminants in the industrial sector are driven by California's local air district stationary source requirements to ensure progress toward achieving State and national ambient air quality standards. Some of those actions, such as use of Best Available Control Technology, have resulted in co-benefits in the form of GHG reductions. The State must continue to strengthen its existing criteria and toxic air pollutant programs and relationships with local air districts to ensure all Californians have healthy, clean air. This is especially true in disadvantaged communities.

AB 32 directed CARB to take several actions to address GHG emissions, such as early action measures, GHG reporting requirements for the largest GHG sources, and other measures. In response, the State adopted multiple measures and regulations, including regulations for high global warming potential (high-GWP) gases used in refrigeration systems and the semiconductor industry.¹⁷⁹ These regulations apply to specific GHGs and types of equipment that can be found across the economy. For example, high-GWP gases are found in refrigeration systems in large food processing plants and chemical and petrochemical facilities, among others.¹⁸⁰

The State has also adopted the first in the world economy-wide cap-and-trade program that applies to all large industrial GHG emitters, imported electricity, and fuel and natural gas suppliers. As discussed in Chapters 2 and 3, the Cap-and-Trade Program is a key element of California's GHG reduction strategy. The

176 <http://www.investopedia.com/articles/investing/011416/californias-economy-9-industries-driving-gdp-growth.asp>

177 U.S. Department of Commerce. International Trade Administration. 2017. California Exports, Jobs, & Foreign Investment. www.trade.gov/mas/ian/statereports/states/ca.pdf

178 Low-e coatings reduce the emissivity, or heat transfer, from a window to improve its insulating properties.

179 CARB. Refrigerant Management Program. www.arb.ca.gov/cc/rmp/rmp.htm

180 The U.S. Environmental Protection Agency (U.S. EPA) has also enacted regulations to reduce hydrofluorocarbon (HFC) emissions by prohibiting high-GWP refrigerants in new retail food refrigeration equipment and in chillers used for large air-conditioning applications. On the international level, the European Union F-gas regulations went into effect January 1, 2015. Those regulations prohibit high-GWP HFCs in new equipment and require a gradual phasedown in the production and import of HFCs. A similar HFC phasedown that would take place globally was the subject of international negotiations during the Montreal Protocol meeting in Rwanda in October, 2016. Those negotiations resulted in an agreement that will phase down the use of HFCs and put the world on track to avoid nearly 0.5°C of warming by 2100.

Cap-and-Trade Program establishes a declining limit on major sources of GHG emissions, and it creates a powerful economic incentive for major investment in cleaner, more efficient technologies. The Cap-and-Trade Program applies to emissions that cover about 85 percent of the State's GHG emissions. CARB creates allowances equal to the total amount of permissible emissions (i.e., the "cap") over a given compliance period. One allowance equals one metric ton of GHG emissions. Fewer allowances are created each year, thus the annual cap declines and statewide emissions are reduced over time. An increasing annual auction reserve (or floor) price for allowances and the reduction in annual allowance budgets creates a steady and sustained pressure for covered entities to reduce their GHGs. All covered entities in the Cap-and-Trade Program are still subject to the air quality permit limits for criteria and toxic air pollutants.

The Cap-and-Trade Program is designed to achieve the most cost-effective statewide GHG emissions reductions; there are no individual or facility-specific GHG emissions reductions requirements. Each entity covered by the Cap-and-Trade Program has a compliance obligation that is set by its GHG emissions over a compliance period, and entities are required to meet that compliance obligation by acquiring and surrendering allowances in an amount equal to their compliance obligation. Companies can also meet a limited portion of their compliance obligation by acquiring and surrendering offset credits, which are compliance instruments that are based on rigorously verified emissions reductions that occur from projects outside the scope of the Cap-and-Trade Program. Like allowances, each offset credit is equal to one metric ton of GHG emissions. The program began in January 2013 and achieved a near 100 percent compliance rate for the first compliance period (2013–2014). Reported and verified emissions covered by the Cap-and-Trade Program have been below the cap throughout the first years of the Program.¹⁸¹

Allowances are issued by CARB and distributed by free allocation and by sale at auctions. CARB also provides for free allocation to some entities covered by the Program to address potential trade exposure due to the cost of compliance with the Program and address concerns of relocation of production out-of-state and resulting emissions leakage. Offset credits are issued by CARB to qualifying offset projects. Secondary markets exist where allowances and offset credits may be sold and traded among Cap-and-Trade Program participants. Facilities must submit allowances and offsets to match their annual GHG emissions. Facilities that emit more GHG emissions must surrender more allowances or offset credits, and facilities that can cut their emissions need to surrender fewer compliance instruments. Entities have flexibility to choose the lowest-cost approach to achieving program compliance; they may purchase allowances at auction, trade allowances and offset credits with others, take steps to reduce emissions at their own facilities, or utilize a combination of these approaches. Proceeds from the sale of State-owned allowances at auction are placed into the Greenhouse Gas Reduction Fund.

It is important to note that while the Cap-and-Trade Program is designed to reduce GHGs for the industrial sector, there are recommendations from the EJAC (or Committee) for the State to pursue more facility-specific GHG reduction measures to achieve potential local air quality co-benefits, and AB 197 directs CARB to prioritize direct reductions at large stationary sources. The Committee has expressed a strong preference to forgo the existing Cap-and-Trade Program and rely on prescriptive facility level regulations.

We agree with the EJAC that more can and should be done to reduce emissions of criteria pollutants and toxic air contaminants. These pollutants pose air quality and related health issues to the communities adjacent to the sources of industrial emissions. Further, many of these communities are already disadvantaged and burdened by a variety of other environmental stresses. As described in Chapter 3, however, there is not always a direct correlation between emissions of GHGs, criteria pollutants, and toxic air contaminants. Also, relationships between these pollutants are complex within and across industrial sectors. The solution, therefore, is not to do away with or change the regulation of GHGs through the Cap-and-Trade Program to address these legitimate concerns; instead, consistent with the direction in AB 197 and AB 617, State and local agencies must evaluate and implement additional measures that directly regulate and reduce emissions of criteria and toxic air pollutants through other programs.

181 CARB. 2016. Mandatory Greenhouse Gas Emissions Reporting. www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm

Looking to the Future

This section outlines the high-level objectives and goals to reduce GHGs in this sector.

Goals

- Increase energy efficiency.
- Reduce fossil fuel use.
- Promote and support industry that provides products and clean technology needed to achieve the State's climate goals.
- Create market signals for low carbon intensity products.
- Maximize air quality co-benefits.
- Support a resilient low carbon economy and strong job force.
- Make California the epicenter for research, development, and deployment of technology needed to achieve a near-zero carbon future.
- Increase in-State recycling manufacturing.

Cross-Sector Interactions

There are clear, direct relationships between the industrial sector and other sectors that go beyond the economic support that a strong economy provides. For instance, this sector could increase its use of renewable fuels such as biomethane, which would be sourced from landfills or dairies. Additionally, some industries could shift from raw materials to recycled materials to reduce waste and reduce GHG emissions associated with processing of raw materials. Further, addressing energy efficiency could reduce onsite heating, water, and fuel demand. Moreover, supporting mass-transit or ride share programs for employees would reduce VMT. Finally, upgrading existing facilities or repurposing existing infrastructure instead of constructing new facilities or infrastructure would support land conservation and smart growth goals.

Efforts to Reduce Greenhouse Gases

The measures below include some required and new potential measures to help achieve the State's 2030 target and to support the high-level objectives for this sector. Some measures may be designed to directly address GHG reductions, while others may result in GHG reductions as a co-benefit.

Ongoing and Proposed Measures

- At the October 2016 annual Montreal Protocol Meeting of Parties in Kigali, Rwanda, an international amendment to globally phase down HFC production was agreed upon by more than 150 countries. Depending on the level of future HFC emissions reductions expected for California from the Kigali Agreement, California may also: (1) consider placing restrictions on the sale or distribution of refrigerants with a GWP > 2,500, and (2) consider prohibiting refrigerants with a GWP >= 150 in new stationary refrigeration equipment and refrigerants with a GWP >= 750 for new stationary air-conditioning equipment. At the time the SLCP Strategy was finalized, U.S. EPA was expected to continue implementing certain HFC reductions under its Significant New Alternatives Policy (SNAP). Recent litigation may result in CARB implementing similar measures as state law instead.
- Develop a regulatory monitoring, reporting, verification, and implementation methodology for the implementation of carbon capture and sequestration projects.
- Implement the CARB Regulation for Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities to reduce fugitive methane emissions from storage and distribution infrastructure.

Sector Measures

- Implement the post-2020 Cap-and-Trade Program.
- Continue and strategically expand research and development efforts to identify, evaluate, and help deploy innovative strategies that reduce GHG emissions in the industrial sector.
- Promote procurement policies that prioritize low carbon production to delivery options, including at the State and local government levels.
- Identify and remove barriers to existing grant funding for onsite clean technology or efficiency upgrades.

Potential Additional Actions

The actions below have the potential to reduce GHGs and complement the measures and policies identified in Chapter 2. These are included to spur thinking and exploration of innovation that may help the State achieve its long-term climate goals. It is anticipated that there will be workshops and other stakeholder forums in the years following finalization of the Scoping Plan to explore these potential actions.

- Further deploy fuel cells that use renewable fuels or those that generate electricity that is less carbon intensive than the grid.
- Decrease usage of fossil natural gas through a combination of efficiency, fuel switching, and the development and use of renewable gas.
- Partner with California's local air districts to effectively use BARCT to achieve air quality and GHG reduction co-benefits at large industrial sources.
- Evaluate the potential for and promote electrification for industrial stationary sources whose main emissions are onsite natural gas combustion.
- Identify new funding for grants and tariff opportunities for onsite clean technology, efficiency upgrades, diesel generator replacement, or recycling manufacturing technology.
- Develop an incentive program to install low-GWP refrigeration systems in retail food stores.
- Evaluate and design additional mechanisms to further minimize emissions leakage in the Cap-and-Trade Program (e.g., border carbon adjustment).

Transportation Sustainability

California's population is projected to grow to 50 million people by 2050. How and where the State grows will have important implications for all sectors of the economy, especially the transportation sector. Supporting this growth while continuing to protect the environment, developing livable and vibrant communities, and growing the economy is dependent on transitioning the State's transportation system to one powered by ZEVs (including PHEVs, BEVs, and FCEVs) and low carbon fuels. It must also offer other attractive and convenient low carbon transportation choices, including safe walking and bicycling, as well as quality public transportation. Investments should consider California's diverse communities and provide accessible and clean travel options to all while drastically reducing reliance on light-duty combustion vehicles.

The transportation system in California moves people between home, work, school, shopping, recreation, and other destinations, and connects ports, industry, residential communities, commercial centers, educational facilities, and natural wonders.¹⁸² California's vast transportation system includes roads and highways totaling more than 175,000 miles and valued at approximately \$1.2 trillion, 500 transit agencies, 245 public-use airports, 12 major ports, and the nation's first high-speed rail system, now under construction.¹⁸³ Transportation infrastructure also includes sidewalks, bicycle paths, parking, transit stations and shelters, street trees and landscaping, signage, lighting, and other elements that affect the convenience, safety, and accessibility of transportation choices. Increasingly, technologies such as real-time, web- and mobile-enabled trip planning and ride-sourcing services are changing how people travel. In the near future, automated and connected vehicles, and unmanned aerial systems (e.g., drones) are expected to be part of our transportation landscape and to transform the way that people and freight are transported. Responsibility for the transportation system is spread across State, regional, and local levels.

Through effective policy design, the State has an opportunity to guide technology transformation and influence investment decisions with a view to mitigate climate and environmental impacts while promoting economic opportunities and community health and safety. The network of transportation technology and infrastructure, in turn, shapes and is shaped by development and land use patterns that can either support or detract from a more sustainable, low carbon, multi-modal transportation future. Strategies to reduce GHG emissions from the transportation sector, therefore, must actively address not only infrastructure and technology, but also coordinated strategies to achieve development, conservation, and land use patterns that align with the State's GHG and other policy goals.

Transportation also enables the movement of freight such as food, building materials, and other consumable products, as well as waste and recyclables. The California freight system includes myriad equipment and

¹⁸² Caltrans. California Transportation Plan 2040, February 2016.

¹⁸³ Ibid.

facilities,¹⁸⁴ and is the most extensive, complex, and interconnected system in the country, with approximately 1.5 billion tons of freight valued at \$2.8 trillion shipped in 2015 to, through, and within California.¹⁸⁵ Freight-dependent industries accounted for over \$740 billion of California's GDP and over 5 million California jobs in 2014.^{186, 187}

Transportation has a profound and varied impact on individuals and communities, including benefits such as economic growth, greater accessibility, and transport-related physical activity, and adverse consequences such as GHG emissions, smog-forming and toxic air pollutants, traffic congestion, and sedentary behaviors. The sector is the largest emitter of GHG emissions in California. Air pollution from tailpipe emissions contributes to respiratory ailments, cardiovascular disease, and early death, with disproportionate impacts on vulnerable populations such as children, the elderly, those with existing health conditions (e.g., chronic obstructive pulmonary disease, or COPD), low-income communities, and communities of color.^{188, 189, 190, 191, 192} Importantly, transportation costs are also a major portion of most Californian's household budgets.¹⁹³ Additionally, dependence on cars has a direct impact on levels of physical activity, which is closely linked to multiple adverse health outcomes.

Fortunately, many measures that reduce transportation sector GHG emissions simultaneously present opportunities to bolster the economy, enhance public health, revitalize disadvantaged communities, strengthen resilience to disasters and changing climate, and improve Californians' ability to conveniently access daily destinations and nature. These opportunities are particularly important for those who are not able to, or cannot afford to, drive. In addition, a growing market demand for walkable, bikeable, and transit-accessible communities presents a significant opportunity to shift California's transportation systems toward a lower-carbon future while realizing significant public health benefits through increased levels of physical activity (e.g., walking and bicycling). In fact, transport-related physical activity could result in reducing risks from chronic diseases such as cardiovascular disease, diabetes, certain cancers, and more, to such an extent that it would rank among the top public health accomplishments in modern history, and help to reduce the billions of dollars California spends each year to treat chronic diseases. Just as California was the first to mitigate the contribution of cars and trucks to urban smog, it is leading the way toward a clean, low carbon, healthy, interconnected, and equitable transportation system.

Continuing to advance the significant progress already underway in the areas of vehicle and fuel technology is critical to the transportation sector strategy and to reducing GHG emissions in the transportation sector. The rapid technological and behavioral changes underway with automated and connected vehicles, unmanned aerial systems, and ride-sourcing services are redefining the transportation sector, and should be part of the solution for a lower carbon transportation sector. It is critical to support and accelerate progress on transitioning to a zero carbon transportation system, while ensuring VMT reductions are still achieved. The growing severity of climate impacts, persistent public health impacts and costs from air pollution,¹⁹⁴ and rapid technology progress that supports the expectation that cost parity between some ZEVs and comparable internal combustion vehicles will be attained in a few years, underscores the need for further

184 The freight system includes trucks, ocean-going vessels, locomotives, aircraft, transport refrigeration units, commercial harborcraft and cargo handling, industrial and ground service equipment used to move freight at seaports, airports, border crossings, railyards, warehouses, and distribution centers.

185 U.S. Department of Transportation, Bureau of Transportation Statistics and Federal Highway Administration. Freight Analysis Framework, V 4.1, 2016.

186 U.S. Department of Commerce, Bureau of Economic Analysis. Regional Economic Accounts. Available at: www.bea.gov/regional/index.htm, accessed March 11, 2016.

187 State of California Employment Development Department. Labor Market Information by California Geographic Areas. Available at: www.labormarketinfo.edd.ca.gov/geography/lmi-by-geography.html, accessed March 21, 2016.

188 CARB. May 2016. Mobile Source Strategy. Available at: www.arb.ca.gov/planning/sip/2016sip/2016mobsrsc.pdf

189 Hoek, G., Krishnan, R. M., Beelen, R., Peters, A., Ostro, B., Brunekreef, B., and Kaufman, J. D. 2013. Long-term air pollution exposure and cardio-respiratory mortality: a review. *Environmental Health*, 12(1), 1.

190 Friedman, M. S., K. E. Powell, L. Hutwagner, L. M. Graham, and W. G. Teague. 2001. "Impact of changes in transportation and commuting behaviors during the 1996 Summer Olympic Games in Atlanta on air quality and childhood asthma." *JAMA* 285(7), 897-905.

191 Bell, M. L., and K. Ebisu. 2012. "Environmental inequality in exposures to airborne particulate matter components in the United States." *Environmental Health Perspectives* 120(12), 1699.

192 Morello-Frosch, R., M. Zuk, M. Jerrett, B. Shamasunder, and A. D. Kyle. 2011. "Understanding the cumulative impacts of inequalities in environmental health: implications for policy." *Health Affairs* 30(5), 879-887.

193 H + T® Index website. htindex.cnt.org/

194 For example, a recent report by the American Lung Association estimates the costs of climate and air pollution from passenger vehicles in California to be \$15 billion annually. Holmes-Gen, B. and W. Barrett. 2016. Clean Air Future – Health and Climate Benefits of Zero Emission Vehicles. American Lung Association in California, October.

action on ZEVs. Therefore, CARB is signaling the need for additional policy and technical support on strategies to move toward a goal of achieving 100 percent ZEV sales in the light-duty vehicle sector. Austria, Germany, India, Netherlands, and Norway are all taking steps to, or have indicated a desire to, move to 100 percent ZEV sales in the 2020–2030 time frame.

In addition, policies that maximize the integration of electrified rail and transit to improve reliability and travel times, increase active transportation such as walking and bicycling, encourage use of streets for multiple modes of transportation, improve freight efficiency and infrastructure development, and shift demand to low carbon modes will need to play a greater role as California strives to achieve its 2030 and 2050 climate targets.¹⁹⁵

The State's rail modernization program has identified critical elements of the rail network where improvements, either in timing of service or infrastructure, provide benefits across the entire statewide network, furthering the attractiveness of rail for a range of trip distances.¹⁹⁶ The State also uses the Transit and Intercity Rail Capital Program (TIRCP) and Low Carbon Transit Operations Program (LCTOP) to provide grants from GGRF to fund transformative improvements modernizing California's intercity, commuter, and urban rail systems, as well as bus and ferry transit systems, to reduce emissions of GHGs by reducing congestion and VMT throughout California. As the backbone of an electrified mass-transportation network for the State, the high-speed rail system catalyzes and relies on focused, compact, and walkable development well-served by local transit to funnel riders onto the system and provide alternative options to airplanes and automobiles for interregional travel. Concentrated development, such as that incentivized by the Affordable Housing and Sustainable Communities (AHSC) grant program, can improve ridership and revenue for the system while providing vibrant communities for all.

At the same time, more needs to be done to fully exploit synergies with emerging mobility solutions like ride-sourcing and more effective infrastructure planning to anticipate and guide the necessary changes in travel behavior, especially among millennials. Uniquely, high-speed rail affects air-miles traveled, diverting, at minimum, 30 percent of the intrastate air travel market in 2040.¹⁹⁷

While most of the GHG reductions from the transportation sector in this Scoping Plan will come from technologies and low carbon fuels, a reduction in the growth of VMT is also needed. VMT reductions are necessary to achieve the 2030 target and must be part of any strategy evaluated in this Plan. Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward this goal, but alone will not provide all of the VMT growth reductions that will be needed. There is a gap between what SB 375 can provide and what is needed to meet the State's 2030 and 2050 goals.

At the time of this writing, adoption of the first round of SCSs by MPOs is complete, and the second round of SCS planning is underway. Three MPO regions are in the very early stages of developing their third SCSs. To date, CARB staff reviewed the final determinations of 16 MPOs, and concluded that all 16 of those SCSs would achieve their targets, if implemented, with many of the MPOs indicating that they expect to exceed their targets. CARB staff recognizes the very strong performance in this first round of SCSs as a major success. Currently adopted sustainable communities strategies achieve, in aggregate, a 17 percent reduction in statewide per capita GHG emissions relative to 2005 by 2035.

Since 2014, CARB has been working with MPOs and other stakeholders to update regional SB 375 targets. At the same time, CARB has also conducted analysis for development of the Mobile Source Strategy and Scoping Plan that identifies the need for statewide per capita greenhouse gas emissions reductions on the order of 25 percent by 2035, to meet our climate goals. Many MPOs have identified challenges to incorporating additional strategies and reducing emissions further in their plans, principally tied to the need for additional and more flexible revenue sources. MPOs have submitted target update recommendations to CARB that in aggregate maintains a 17 percent reduction statewide, which includes commitments of 18 percent reduction by 2035 from each of the four largest MPOs in the State.

CARB is currently reviewing each MPOs target update recommendations alongside new State policies. State agencies have been working on new State-level VMT-related Policies and Measures (see Table 17) as part of this Scoping Plan intended to provide the State, MPOs, and local agencies with additional funding resources and tools to successfully meet the State's climate goals. CARB's preliminary review indicates that new State-level policies and measures will help support updated SB 375 targets that achieve up to 20 percent of the

195 Morello-Frosch, R., M. Zuk, M. Jerrett, B. Shamasunder, and A. D. Kyle. 2011. "Understanding the cumulative impacts of inequalities in environmental health: Implications for policy." *Health Affairs* 30(5), 879–887.

196 California State Transportation Agency. 2016. 2018 California State Rail Plan factsheet and TIRCP fact sheet.

197 California High-Speed Rail Authority. 2016. 2016 Business Plan. Ridership and Revenue Forecast.

needed statewide reduction, as well as help bridge the remaining VMT growth reduction gap.

Discussions among a broad suite of stakeholders from transportation, the building community, financial institutions, housing advocates, environmental organizations, and community groups are needed to begin the process to pursue and develop the needed set of strategies to ensure that we can achieve necessary VMT reductions, and that the associated benefits are shared by all Californians. Appendix C further details potential actions for discussion that can be taken by State government, regional planning agencies, and local governments, to achieve a broad, statewide vision for more sustainable land use and close the VMT gap.¹⁹⁸

At the State level, a number of important policies are being developed. Governor Brown signed Senate Bill 743 (Steinberg, Chapter 386, Statutes of 2013), which called for an update to the metric of transportation impact in CEQA. That update to the CEQA Guidelines is currently underway. Employing VMT as the metric of transportation impact statewide will help to ensure GHG reductions planned under SB 375 will be achieved through on-the-ground development, and will also play an important role in creating the additional GHG reductions needed beyond SB 375 across the State. Implementation of this change will rely, in part, on local land use decisions to reduce GHG emissions associated with the transportation sector, both at the project level, and in long-term plans (including general plans, climate action plans, specific plans, and transportation plans) and supporting sustainable community strategies developed under SB 375. The State can provide guidance and tools to assist local governments in achieving those objectives.

Appendix H highlights the more significant existing policies, programs, measures, regulations, and initiatives that provide a framework for helping achieve GHG emissions reductions in this sector.

Looking to the Future

This section outlines the high-level objectives and goals to reduce GHGs in this sector.

Vibrant Communities and Landscapes / VMT Reduction Goals

- Implement and support the use of VMT as the metric for determining transportation impacts under CEQA, in place of level of service (LOS).
- Promote all feasible policies to reduce VMT, including:
 - Land use and community design that reduce VMT,
 - Transit oriented development,
 - Complete street design policies that prioritize transit, biking, and walking, and
 - Increasing low carbon mobility choices, including improved access to viable and affordable public transportation and active transportation opportunities.
- Complete the construction of high-speed rail integrated with enhanced rail and transit systems throughout the State.
- Promote transportation fuel system infrastructure for electric, fuel-cell, and other emerging clean technologies that is accessible to the public where possible, and especially in underserved communities, including environmental justice communities.
- Increase the number, safety, connectivity, and attractiveness of biking and walking facilities to increase use.
- Promote potential efficiency gains from automated transportation systems and identify policy priorities to maximize sustainable outcomes from automated and connected vehicles (preferably ZEVs), including VMT reduction, coordination with transit, and shared mobility, and minimize any increase in VMT, fossil fuel use, and emissions from using automated transportation systems.
- Promote shared-use mobility, such as bike sharing, car sharing and ride-sourcing services to bridge the “first mile, last mile” gap between commuters’ transit stops and their destinations.
- Continue research and development on transportation system infrastructure, including:
 - Integrate frameworks for lifecycle analysis of GHG emissions with life-cycle costs for pavement and large infrastructure projects, and
 - Health benefits and costs savings from shifting from driving to walking, bicycling, and transit use.
- Quadruple the proportion of trips taken by foot by 2030 (from a baseline

198 CARB. Potential State - Level Strategies to Advance Sustainable, Equitable Communities and Reduce Vehicle Miles of Travel (VMT) -- for Discussion. www.arb.ca.gov/cc/scopingplan/meetings/091316/Potential%20VMT%20Measures%20For%20Discussion_9.13.16.pdf

of the 2010–2012 California Household Travel Survey).

- Strive for a nine-fold increase in the proportion of trips taken by bicycle by 2030 (from a baseline of the 2010–2012 California Household Travel Survey).
- Strive, in passenger rail hubs, for a transit mode share of between 10 percent and 50 percent, and for a walk and bike mode share of between 10 percent and 15 percent.

Vehicle Technology Goals

- Through a strong set of complementary policies—including reliable incentives, significant infrastructure investment, broad education and outreach, and potential regulation—aim to reach 100 percent ZEV sales in the light-duty sector (PHEVs, BEVs, and FCEVs) by 2050.
- Make significant progress in ZEV penetrations in non-light-duty sectors.
- Deploy low-emission and electrified rail vehicles.

Clean Fuels Goals

- Electrify the transportation sector using both electricity and hydrogen.
- Promote research development and deployment of low carbon fuels such as renewable gas, including renewable hydrogen.
- Rapidly reduce carbon intensity of existing liquid and gaseous transportation fuels.

Sustainable Freight Goals

- Increase freight system efficiency of freight operations at specific facilities and along freight corridors such that more cargo can be moved with fewer emissions.
- Accelerate use of clean vehicle and equipment technologies and fuels of freight through targeted introduction of zero emission or near-zero emission (ZE/NZE) technologies, and continued development of renewable fuels.
- Encourage State and federal incentive programs to continue supporting zero and near-zero pilot and demonstration projects in the freight sector.
- Accelerate use of clean vehicle, equipment, and fuels in freight sector through targeted introduction of ZE/NZE technologies, and continued development of renewable fuels. This includes developing policy options that encourage ZE/NZE vehicles on primary freight corridors (e.g., Interstate-710); examples of such policy options include a separated ZE/NZE freight lane, employing market mechanisms such as favorable road pricing for ZE/NZE vehicles, and developing fuel storage and distribution infrastructure along those corridors.

Cross-Sector Interactions

The transportation sector has considerable influence on other sectors and industries in the State. California's transportation sector is still primarily powered by petroleum, and to reduce statewide emissions, California must reduce demand for driving; continue to reduce its gasoline and diesel fuel consumption; diversify its transportation fuel sources by increasing the adoption of low- and zero-carbon fuels; increase the ease and integration of the rail and transit networks to shift travel mode; and deploy ZE/NZE vehicles.

As California's population continues to increase, land use patterns will directly impact GHG emissions from the transportation sector, as well as those associated with the conversion and development of previously undeveloped land. Specifically, where and how the State population grows will have implications on distances traveled and tailpipe emissions; as well as on secondary emissions from the transportation sector, including emissions from vehicle manufacturing and distribution, fuel refining and distribution, demand for new infrastructure (including roads, transit, and active transportation infrastructure), demand for maintenance and upkeep of existing infrastructure. Conversion of natural and working lands further affects emissions, with the attendant impacts to food security, watershed health, and ecosystems. Less dense development also demands higher energy and water use. With the exception of VMT reductions, none of these secondary emissions are currently accounted for in the GHG models used in this Scoping Plan, but are nonetheless important considerations. Additionally, compact, lower-VMT future development patterns are essential to achieving public health, equity, economic, and conservation goals, which are also not modeled but are important co-benefits of the overall transportation sector strategy. For example, high-speed rail station locations were identified in downtown areas to reinforce existing city centers.

Achieving LCFS targets and shifting from petroleum dependence toward greater reliance on low carbon fuels also has the potential to affect land use in multiple ways. For example, increased demand for conventional biofuels could require greater use of land and water for purpose-grown crops, which includes interactions with the agricultural and natural and working lands sectors. On the other hand, continuing growth in fuels from urban organic waste, as well as waste biomass such as composting residues, by-processing residues and agricultural waste and excess forest biomass acts to alleviate the pressure on croplands to meet the need for food, feed, and fuel. Likewise, captured methane from in-vessel digestion, landfills or dairy farms for use in vehicles requires close interaction with the waste and farming sectors.

Also, as more electric vehicles and charging stations are deployed, drivers' charging behavior will affect the extent to which additional electric generation capacity and ancillary services are needed to maintain a reliable grid and accommodate a portfolio of 50 percent renewable electricity by 2030. Charging control and optimization technologies will determine how well integrated the electric and transportation sectors can become, including, for instance, the widespread use of electric vehicles as storage for excess renewable generation, vehicle to grid, smart charging, and/or smart grid. The GHG emissions intensity of electricity affects the GHG savings of fuel switching from petroleum-based fuels to electricity; the cleaner the electric grid, the greater the benefits of switching to electricity as a fuel. Similar to electric vehicles, hydrogen fuel cell electric vehicles have zero-tailpipe emissions and can mitigate GHGs and criteria pollutants. Greenhouse gas emissions could be further reduced with the use of renewable hydrogen, which can be produced using renewable electricity or renewable natural gas.

Efforts to Reduce Greenhouse Gases

The measures below include some required and new potential measures to help achieve the State's 2030 target and to support the high-level objectives for the transportation sector. Some measures may be designed to directly address GHG reductions, while others may result in GHG reductions as a co-benefit.

Ongoing and Proposed Measures – Vibrant Communities and Landscapes / VMT Reduction Goals

- Mobile Source Strategy – 15 percent reduction in total light-duty VMT from the BAU in 2050 (with measures to achieve this goal not specified; potential measures identified in Appendix C).
- Work with regions to update SB 375 Sustainable Communities Strategies targets for 2035 to better align with the 2030 GHG target and take advantage of State rail investments.
- Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward the goal of reducing total light-duty VMT by 15 percent from expected levels in 2050, but alone will not provide all of the VMT reductions that will be needed. The gap between what SB 375 can provide and what is needed to meet the State's 2030 and 2050 goals needs to be addressed through additional VMT reduction measures such as those mentioned in Appendix C.
- Implement and support the adoption and use of VMT as the CEQA metric of transportation impact, such that it promotes GHG reduction, the development of multimodal transportation networks, and a diversity of land uses.
- Continue to develop and explore pathways to implement State-level VMT reduction strategies, such as those outlined in the document "Potential State-Level Strategies to Advance Sustainable, Equitable Communities and Reduce Vehicle Miles of Travel (VMT) – for Discussion"¹⁹⁹ – included in Appendix C – through a transparent and inclusive interagency policy development process to evaluate and identify implementation pathways for additional policies to reduce VMT and promote sustainable communities, with a focus on:
 - Accelerating equitable and affordable transit-oriented and infill development through new and enhanced financing and policy incentives and mechanisms,
 - Promoting stronger boundaries to suburban growth through enhanced support for sprawl containment mechanisms such as urban growth boundaries and transfer of development rights programs,
 - Identifying performance criteria for transportation and other infrastructure investments

¹⁹⁹ Refers to the document discussed at the September 2016 Public Workshop on the Transportation Sector to Inform Development of the 2030 Target Scoping Plan Update, also available at: www.arb.ca.gov/cc/scopingplan/meetings/091316/Potential%20VMT%20Measures%20For%20Discussion_9.13.16.pdf

- to ensure alignment with GHG reduction goals and other State policy priorities and expand access to transit, shared mobility, and active transportation choices,
- Promoting efficient development patterns that maximize protection of natural and working lands,
- Developing pricing mechanisms such as road user/VMT-based pricing, congestion pricing, and parking pricing strategies,
- Reducing congestion and related GHG emissions through commute trip reduction strategies, and
- Programs to maximize the use of alternatives to single-occupant vehicles, including bicycling, walking, transit use, and shared mobility options.
- Finalize analysis of the results of the pilot road usage charge program, implemented pursuant to SB 1077 (DeSaulnier, Chapter 835, Statutes of 2014), and evaluate deployment of a statewide program.
- Continue promoting active transportation pursuant to SB 99 (Committee on Budget and Fiscal Review, Chapter 359, Statutes of 2013) – The Active Transportation Program and beyond.
- Continue to build high-speed rail and broader statewide rail modernization pursuant to the funding program in SB 862 (Committee on Budget and Fiscal Review, Chapter 36, Statutes of 2014) and other sources.
- Encourage use of streets for multiple modes of transportation (including public transit and active transportation, such as walking and bicycling), and for all users, including the elderly, young, and less able bodied, pursuant to AB 1358 (Leno, Chapter 657, Statutes of 2008) – Complete Streets policies.
- Support and assist local and regional governments, through technical assistance, and grant and other local assistance programs, to develop and implement plans that are consistent with the goals and concepts in The Second Investment Plan for Fiscal Years 2016-2017 through 2018-2019²⁰⁰ and its subsequent updates, and Appendix C: Vibrant Communities and Landscapes, including the following:
 - California Climate Investment programs such as Transformative Climate Communities Program, ensuring promotion of GHG reductions from neighborhood-level community plans in disadvantaged communities.
 - AB 2087 (Levine, Chapter 455, Statutes of 2016) – Help local and State agencies apply core investment principles when planning conservation or mitigation projects.
 - High speed rail station area plans.
 - Implementation of updated General Plan Guidelines.
- Per SB 350, implement the recommendations identified in the Barriers Study to accessing ZE/NZE transportation options for low-income customers and recommendations on how to increase access.²⁰¹ And, track progress towards these actions over time to ensure disadvantaged communities are getting equal access and benefits relative to other parts of the State.
- Take into account the current and future impacts of climate change when planning, designing, building, operating, maintaining, and investing in State infrastructure, as required under Executive Order B-30-15.

Ongoing and Proposed Measures – Vehicle Technology

- Implement the Cleaner Technology and Fuels Scenario of CARB’s Mobile Source Strategy, which includes:
 - An expansion of the Advanced Clean Cars program, which further increases the stringency of GHG emissions for all light-duty vehicles, and 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030,
 - Phase 1 and 2 GHG regulations for medium- and heavy-duty trucks, and
 - Innovative Clean Transit.
- Periodically assess and promote cleaner fleet standards.
- Deploy ZEVs across all vehicle classes, including rail vehicles, along with the necessary charging infrastructure.
- Encourage State and federal incentive programs to continue supporting zero and near-zero pilot and demonstration projects.
- Collaborate with the U.S. Environmental Protection Agency to promulgate more

200 CARB. January 2016. Cap-and-Trade Auction Proceeds Second Investment Plan: Fiscal Years 2016-17 through 2018-19. Available at: www.arb.ca.gov/cc/capandtrade/auctionproceeds/16-17-updated-final-second-investment-planii.pdf

201 CARB. 2017. Low-Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low Income Residents. www.arb.ca.gov/msprog/transoptions/draft_sb350_clean_transportation_access_guidance_document.pdf

stringent locomotives requirements,²⁰² work with California seaports, ocean carriers, and other stakeholders to develop the criteria to incentivize introduction of Super-Low Emission Efficient Ships, and investigate potential energy efficiency improvements for transport refrigeration units and insulated truck and trailer cargo vans.

- Promote research, development, and deployment of new technology to reduce GHGs, criteria pollutants, and toxics.
- Implement a process for intra-state agency and regional and local transportation coordination on automated vehicles to ensure shared policy goals in achieving safe, energy efficient, and low carbon autonomous vehicle deployment that also contribute to VMT reductions.

Ongoing and Proposed Measures – Clean Fuels

- Continue LCFS activities, with increasing stringency of at least 18 percent reduction in carbon intensity (CI).
- Continue to develop and commercialize clean transportation fuels through renewable energy integration goals, tax incentives, research investments, support for project demonstration, public outreach, setting procurement standards, including updating State and local procurement contracts.
- Per SB 1383 and the SLCP Strategy, adopt regulations to reduce and recover methane from landfills, wastewater treatment facilities, and manure at dairies; use the methane as a source of renewable gas to fuel vehicles and generate electricity; and establish infrastructure development and procurement policies to deliver renewable gas to the market.
- Accelerate deployment of alternative fueling infrastructure pursuant to the following:
 - SB 350 – CPUC to accelerate widespread transportation electrification.
 - Executive Order B-16-2012 and 2016 ZEV Action Plan – call for infrastructure to support 1 million ZEVs by 2020.
 - CEC’s Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP).
 - CPUC’s NRG settlement.
 - CALGreen Code provisions mandate installation of PEV charging infrastructure in new residential and commercial buildings.²⁰³
 - IOU electric vehicle charging infrastructure pilot programs.

Ongoing and Proposed Measures – Sustainable Freight

- Implement the California Sustainable Freight Action Plan:
 - 25 percent improvement of freight system efficiency by 2030.
 - Deployment of over 100,000 freight vehicles and equipment capable of zero emission operation, and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.

Ongoing and Proposed Measures – California and Transportation Plan

- Update every five years and implement California Transportation Plan.

Sector Measures

- Implement the post-2020 Cap-and-Trade Program

Potential Additional Actions

The actions below have the potential to reduce GHGs and complement the measures and policies identified in Chapter 2. These are included to spur thinking and exploration of innovation that may help the State achieve its long-term climate goals.

- Develop a set of complementary policies to make light-duty ZEVs clear market winners, with a goal of reaching 100 percent light-duty ZEV sales. This could include the following:
 - Reliable purchase/trade-in incentives for at least 10 years.
 - Dealer incentives for ZEV sales.
 - Policies to ensure operating cost savings for ZEVs relative to internal

²⁰² www.arb.ca.gov/railyard/docs/final_locomotive_petition_and_cover_letter_4_13_17.pdf

²⁰³ Such as raceway and panel capacity to support future installation of electrical vehicle charging stations.

- combustion engines, including low cost electricity.
- Additional investments in charging and ZEV refueling infrastructure.
- A broad and effective marketing and outreach campaign.
- Collaborations with cities to develop complementary incentive and use policies for ZEVs.
- Targeted policies to support ZEV sales and use in low income and disadvantaged communities.
- Develop a Low-Emission Diesel Standard to diversify the fuel pool by incentivizing increased production of low-emission diesel fuels. This standard is anticipated to both displace consumption of conventional diesel with increased use of low-emission diesel fuels, and to reduce emissions from conventional fuels.
- Continue to develop and explore pathways to implement State-level VMT reduction strategies, such as those outlined in Appendix C through a transparent and inclusive interagency policy development process to evaluate and identify implementation pathways for additional policies to reduce VMT and promote sustainable communities, with a focus on the following:
 - Accelerating equitable and affordable transit-oriented and infill development through new and enhanced financing and policy incentives and mechanisms.
 - Promote infrastructure necessary for residential development in existing communities, and ensure any urban growth boundaries are paired with significant infill promotion strategies and removal of infill development barriers.
 - Identifying performance criteria for transportation and other infrastructure investments, to ensure alignment with GHG reduction goals and other State policy priorities, and improve proximity, expanded access to transit, shared mobility, and active transportation choices.
 - Promoting efficient development patterns that maximize protection of natural and working lands.
 - Developing pricing mechanisms such as road user/VMT-based pricing, congestion pricing, and parking pricing strategies.
 - Reducing congestion and related GHG emissions through programs to maximize the use of alternatives to single-occupant vehicles, including bicycling, walking, transit use, and shared mobility options for commute trips.
- Continue to promote research and standards for new and existing technologies to reduce GHGs, including but not limited to:
 - Low rolling resistance tires in the replacement tire market, subject to certification standards that identify tires as low rolling resistance tires or verify emissions reductions and potential fuel savings.
 - Impacts on VMT of car sharing, ride-sourcing, and other emerging mobility options.
 - Driving behaviors that reduce GHG emissions, such as ecodriving training and real-time feedback mechanisms.

Natural and Working Lands Including Agricultural Lands

In his 2015 State of the State address, Governor Brown established 2030 targets for GHG emissions reductions and called for policies and actions to reduce GHG emissions from natural and working lands, including forests, rangelands, farms, wetlands, and soils. The passage of SB 1386 (Wolk, Chapter 535, Statutes of 2015-16) codified this policy and emphasized the important role natural and working lands play in the State's climate strategy. This Scoping Plan focuses renewed attention on California's natural and working lands and the contribution they make to meet the State's goals for carbon sequestration, GHG reduction, and climate change adaptation.

California's natural and working lands encompass a range of land types and uses, including farms, ranches, forests, grasslands, deserts, wetlands, riparian areas, coastal areas and the ocean-- as well as the green spaces in urban and built environments. These resources can be both a source and sink for GHG emissions. Policy in this sector must balance GHG emissions reductions and carbon sequestration with other co-benefits, such as clean air, wildlife and pollinator habitat, strong economies, food, fiber and renewable energy production, and water supply.²⁰⁴

Recent trends indicate that significant pools of carbon from these landscapes risk reversal: over the period 2001–2010 disturbance caused an estimated 150 MMT C loss, with the majority— approximately 120 MMT C—

204 www.sierranevada.ca.gov/our-region/ca-primary-watershed

lost through wildland fire.²⁰⁵ At the same time, energy use, methane, and N₂O emissions from the agricultural sector accounts for eight percent of the emissions in the statewide GHG inventory.

California's climate objective for natural and working lands is to maintain them as a carbon sink (i.e., net zero or negative GHG emissions) and, where appropriate, minimize the net GHG and black carbon emissions associated with management, biomass utilization, and wildfire events. In order to achieve this objective, this Plan directs the continued development of the broad and growing understanding of carbon dynamics on California's landscapes, statewide emission trends, and their responses to different land management scenarios. Further, in order to build a programmatic framework for achieving this long-term objective to maintain California's natural and working lands as a carbon sink, this Plan directs the State to quantify the carbon impacts of both publicly funded (e.g., bonds, special taxes, general fund) climate intervention activities on California's natural and working lands made through existing programs as well as potential regulatory actions on land management. This Plan proposes an intervention based reduction goal of at least 15-20 million metric tons by 2030 as a reasonable beginning point for further discussion and development based on the State's current preliminary understanding of what might be feasible. This Plan recognizes that achieving an initial statewide goal of sequestering and avoiding emissions in this sector by at least 15-20 million metric tons by 2030 through existing pathways and new incentives would provide a crucial complement to the measures described in this Scoping Plan and will inform the development of longer-term natural and working lands goals. Achieving this ambitious climate goal will require collaboration and support from State and local agencies, which must improve their capacity to participate and benefit from State climate programs, and set the path for natural and working lands to help the State meet its long-range climate goals.

Looking to the Future

This section outlines how the State will achieve California's climate objectives to: (1) maintain them as a resilient carbon sink (i.e., net zero or negative GHG emissions), and (2) minimize the net GHG and black carbon emissions associated with management, biomass disposal, and wildfire events to 2030 and beyond.

Implementation will include policy and program pathways, with activities related to land protection; enhanced carbon sequestration; and innovative biomass utilization. The framework for this section is to:

- **Protect** land from conversion to more intensified uses by increasing conservation opportunities and pursuing local planning processes in urban and infrastructure development patterns that avoid greenfield development.
- **Enhance** the resilience of and potential for carbon sequestration on lands through management and restoration, and reduce GHG and black carbon emissions from wildfire and management activities. This enhancement includes expansion and management of green space in urban areas.
- **Innovate** biomass utilization such that harvested wood and excess agricultural and forest biomass can be used to advance statewide objectives for renewable energy and fuels, wood product manufacturing, agricultural markets, and soil health, resulting in avoided GHG emissions relative to traditional utilization pathways. Associated activities should increase the resilience of rural communities and economies.

To accomplish these objectives, the State, led by California Natural Resources Agency (CNRA), California Department of Food and Agriculture (CDFA), California Environmental Protection Agency (CalEPA) and CARB will complete a Natural and Working Lands (NWL) Climate Change Implementation Plan (Implementation Plan) in 2018 to evaluate a range of implementation scenarios for natural and working lands and identify long-term (2050 or 2100) sequestration goals that can be incorporated into future climate policy. The Implementation Plan will:

- Include a projection of statewide emissions under business-as-usual land use and management conditions and alternative scenarios, as well as a listing and quantitative assessment of conservation and management activities the state may pursue to achieve the NWL climate objectives and the statewide goals of at least 15-20 MMTCO₂e emissions sequestering and avoidance from the NWL sector by 2030;
- Identify state departments, boards, conservancies, and CNRA and CDFA programs responsible for meeting the 15-20 MMTCO₂e goal by 2030; and
- Identify methodologies to be used by State programs to account for the

²⁰⁵ www.arb.ca.gov/cc/inventory/sectors/forest/forest.htm

GHG impacts of prior state funded land use and management interventions, and to be used to estimate the GHG impacts of future interventions.

While growing trees and other vegetation, as well as soil carbon sequestration, reduce some of the carbon losses measured, climate change itself further stresses many of these systems and affects the ability of California's landscapes to maintain its carbon sink. The State will continue to rely on best available science to support actions and incentives to slow and reverse these trends, in concert with other production and ecological objectives of land use. The Forest Climate Action Team, Healthy Soils Initiative, State Coastal Conservancy's Climate Ready Program, various California Climate Investment programs, and CARB's compliance offset program already undertake portions of this work. As we move towards and maximize the ability of our land base to serve as a carbon sink, it will also be important to strengthen these individual activities through the coordination and aggregation of ecoregional plans that inform these interventions. These and future additional efforts can not only protect California's natural carbon stocks, they can also improve quality of life in urban and rural communities alike and increase the climate resilience of agricultural, forestry, and recreational industries and the rural communities they support; the State's water supply; biodiversity; and the safety and environmental health of all who call California home.

Research and Policy Needs

Research is ongoing across agencies to advance the state of the science on NWL carbon dynamics, including a number of projects within the Fourth Climate Change Assessment, and a compendium of climate research being managed by the CNRA that will be completed in 2018. Additionally, California needs a well-defined reference case, or "business as usual" scenario to set a comprehensive and strategic path forward for California's lands and ocean environments to contribute to the State's climate goals. Finally, efforts must increase to gather, interpret, and unify best available science on the GHG and carbon sequestration impacts of land use and management practices applied across forests, cultivated agricultural lands, rangelands and grasslands, wetlands, coastal and ocean systems, desert ecosystems, and urban and other settled lands.

The Implementation Plan, as summarized above, will utilize the Protect-Enhance-Innovate framework and employ projections for carbon sequestration and GHG emissions from California's land base under reference case and increased management scenarios. The quantitative outputs of these projections, expressed as carbon dioxide equivalents will drive acreage needs for implementation using CO₂e/acre results from multiple modeling efforts. The Implementation Plan will also identify GHG emissions quantification within and across programs and agencies and describe implementation monitoring and emissions inventories.

Natural and Working Lands Inventory

In order to understand how carbon is released and sequestered by natural and working landscapes, CARB has worked extensively with other State agencies, academic researchers and the public to develop a Natural and Working Lands inventory that will guide this process. As with other sectors, the CARB Natural and Working Lands inventory represents a snapshot of emissions in recent years, using a combination of reported and measured data. A time lag exists between the last year of available data and the completion of the inventory to allow time for reporting and processing the data. For emission sources that are hard to individually measure, the CARB inventory estimates emissions based on "surrogates," such as the typical amount of travel on unpaved roads to estimate particulate matter emissions at the county level. The most recent inventory can also be "forecast" to project prevailing conditions in a future year based on rules and programs currently in place – known as a "business as usual projection" - along with scenarios to explore the benefits of further strategies to reduce emissions. Forecasts of business-as-usual and policy scenarios guide planning efforts.

As discussed below, ongoing research into forecasting emissions from Natural and Working Lands includes a project at Lawrence Berkeley National Laboratory funded by CNRA. CARB is monitoring this and other research activities and will incorporate results into a proposed inventory and forecasting methodology for Natural and Working Lands. CARB will solicit public feedback and review on the resulting product prior to completing the first full Natural and Working Lands Inventory by the end of 2018, as called for in SB 859. The Natural and Working Lands Inventory is spatially-resolved, so it can be segmented by county, watershed, or other regional planning areas. This spatial resolution allows local governments and regional organizations to use the inventory, along with more granular location-specific information, to track progress from projects in their jurisdictions.

CARB plans to update the forest component of the Natural and Working Lands inventory to include 2012 GHG emissions estimates, followed by emissions estimates for soil carbon, urban forestry, and croplands by mid-2018. Work currently in progress applies airborne and space-based technologies to monitor forest health and quantify emissions associated with land-based carbon. California and federal agencies are working with researchers and funding studies to enhance our understanding of the roles of forests and other lands in climate change using rapidly advancing remote sensing technology.^{206, 207}

CALAND Carbon Emissions Model

CNRA is managing the development of a CALAND model through Lawrence Berkeley National Laboratory, which will include a projection of business-as-usual emissions as well as a listing and quantitative assessment of conservation and management activities the State may pursue to achieve at least 15-20 MMT sequestration and GHG avoided emissions from the NWL sector by 2030.

CNRA, along with CARB and CDFA, will establish a formal public engagement process to gather external scientific expertise to inform development and finalization of the CALAND model for use in the Implementation Plan. Development of the Implementation Plan itself will also include a formal public process.

Cross-Sector Interactions

Strategies that reduce GHG emissions or increase sequestration in the natural and working lands sector often overlap and result in synergies with other sectors, most notably at intersections with land use, biomass and waste utilization, energy and water. It will be important for the sector to make critical linkages to other sectors, including energy, transportation fuels, and waste, and develop plans to integrate the natural and working lands sector into existing models, such as PATHWAYS and REMI.

Landowner, local, and regional decisions affect land use development patterns and natural and working land conversion rates; conversely, conservation activities can support infill-oriented regional development and related transportation needs. As discussed earlier in the Transportation Sustainability section, under SB 375, Sustainable Communities Strategies (SCSs) aim to link transportation, housing, and climate policy to reduce per capita GHG emissions while providing a range of other important benefits for Californians. Some SCSs include policies, objectives or implementation measures relating to conservation and land protections, and to urban greening.²⁰⁸ Protecting natural and working lands that are under threat of conversion can promote infill development, reduce VMT, limit infrastructure expansion, and curb associated GHG emissions. An integrated vision for community development, land conservation and management, and transportation is a key component of meeting our transportation and natural and working lands goals.²⁰⁹

Agricultural and commercial forestry operations produce biomass as both an objective (i.e., food and fiber production) and a waste by-product. How this material is utilized can either increase or decrease emissions associated with management and restoration activities, turn waste into usable products, displace fossil fuels used in energy and transportation, and increase carbon stored in durable wood products in the built environment. Finding productive ways to use this material offers new opportunities to reduce GHG emissions, promote carbon sequestration, and generate economic resources for forest, agricultural, and waste sectors and communities. California is investigating ways to transform how organic waste from the agricultural and municipal sectors is managed to meet SLCP emissions reductions targets required by SB 1383,²¹⁰ and to protect public health. Cross-sector synergies and complete waste inter-cycles, discussed further in the Waste Management section, result from conscientious treatment of these resources, including opportunities to improve soil health, increase renewable energy generation, and enhance market support for non-commercial products and waste. Productive utilization of dead and dying trees is a significant focus of the Governor's Tree Mortality Task Force, and efforts to resolve the current shortfall in utilization capacity is addressed in that State of Emergency Declaration as well as in SB 859.

Natural and working lands stewardship is essential to securing the State's water supply along the entire

206 Asner, G. et al. (2015) Progressive forest canopy water loss during the 2012–2015 California drought. PNAS 113.2: E249-E255

207 Battles, J. et al. (in progress) Innovations in measuring and managing forest carbon stocks in California. Project 2C: 4th California Climate Change Assessment. Natural Resources Agency. resources.ca.gov/climate/fourth/

208 Livingston, Adam. Sustainable Communities Strategies and Conservation. January 2016. Available at: www.nature.org/ourinitiatives/regions/northamerica/unitedstates/california/sustainable-communities-strategies-and-conservation.pdf

209 www.arb.ca.gov/cc/scopingplan/meetings/meetings.htm

210 SB1383 (Lara, Chapter 396, Statutes of 2016) requires a 50 percent reduction in anthropogenic black carbon emissions by 2030.

supply chain, from protection and management of the forested headwaters to preserving the ability of mountain meadows to retain and filter water ensuring flows and habitat in the Delta and its tributaries, end use efficiencies in agricultural and urban uses, and groundwater infiltration and utilization statewide. For example, more efficient water and energy use in farming operations could support GHG emissions reductions goals in the energy sectors. And improving forest health in the Sierra Nevada, Cascades, and other headwaters protects water quality and availability, in alignment with the California Water Action Plan.

Potential Actions to Enhance Carbon Sequestration and Reduce Greenhouse Gases in NWL

While agricultural and forest lands comprise the greatest acreage of NWL statewide, representing significant opportunity for achieving the State's NWL climate goals, actions on all NWL remain critical. The land management strategies and targets included in these sections are illustrative of the types of actions that will be necessary to maintain all of California's NWL and urban green space as a net sink of carbon, and are being used to aid in development of scenario modeling. The Implementation Plan will use this scenario modeling to scope the scale of action needed to ensure resilient future landscapes and identify key areas for advancement.

Agriculture's Role in Emissions Reductions and Carbon Sequestration

In 2030 and 2050, the agricultural sector must remain vibrant and strong. California's agricultural production is critical to global food security. It is also vulnerable to climate change. A study²¹¹ by the University of California concluded that the drought in 2015 cost the state economy \$2.7 billion and 21,000 full time jobs. These losses are expected to ripple through rural communities for another several years. This illustrates the importance of strengthening agriculture while protecting resources and mitigating climate change.

As the State works to meet emissions reductions goals, the agricultural sector can reduce emissions from production, sequester carbon and build soil carbon stocks, and play a role in cross-sectoral efforts to maximize the benefits of natural and working lands.

Climate-smart agriculture is an integrated approach to achieving GHG reductions while also ensuring food security and promoting agricultural adaptation in the face of climate change. Conserving agricultural land, sequestering carbon in agricultural soils, employing a variety of techniques to manage manure on dairies, and increasing the efficiency of on-farm water and energy use are examples of practices that can achieve climate and food production goals across diverse agricultural systems. Climate-smart agriculture can support the Protect, Enhance, and Innovate goals.

Approximately 60 percent of agricultural emissions are methane emissions from the dairy and livestock sectors. Emissions come from the animals themselves, through enteric fermentation, as well as from manure management—especially at dairies. SB 1383 and the resultant SLCP Strategy identify a mix of voluntary, incentive-based, and potential regulatory actions to achieve significant emissions reductions from these sources. A variety of techniques can attain the best results for each specific farming operation; effectively implementing a broad mix of strategies will reduce the GHG emissions from the agricultural sector significantly. CARB and CDFA and other agencies are working together to solicit input from industry, environmental, and community groups to encourage early and meaningful action to reduce emissions from the livestock sector.

Over the last several years, farms have begun to optimize fertilizer applications to protect water quality, maintain high yields, and reduce emissions of N₂O, a greenhouse gas. Farmers are required through the Irrigated Lands Regulatory Program to manage nitrogen fertilizers to protect water quality through the use of nitrogen management plans. Nitrogen management plans are a tool designed to prevent over-applications of nitrogen through an approach that accounts for the nitrogen inputs from water, soil amendments and other sources, and also accounts for nitrogen removed from the field. CDFA's Fertilizer Research and Education Program, in coordination with university researchers and others, has developed fertilization guidelines to optimize the rate, timing and placement of fertilizers for crops that represent more than half of the irrigated agriculture in California. Similarly, innovations in water management and the expansion of high efficiency irrigation methods also are contributing to N₂O reductions.

211 Howitt, Richard E., Duncan MacEwan, Josué Medellín-Azuara, Jay R. Lund, Daniel A. Sumner. 2015. Economic Analysis of the 2015 Drought for California. Davis, CA: Center for Watershed Sciences, University of California – Davis.

California's farms and ranches have the ability to remove carbon from the atmosphere through management practices that build and retain soil organic matter. Adequate soil organic matter ensures the continued soil capacity to function as a vital living ecosystem with multiple benefits, producing food for plants, animals, and humans. The Healthy Soils Initiative, announced by Governor Brown in 2015, offers an opportunity to incentivize the management of farmland for increased carbon sequestration in soil, also augmenting co-benefits including improved plant health and yields, increased water infiltration and retention, reduced sediment erosion and dust, improved water and air quality, and improved biological diversity and wildlife habitat.

SB 859, signed into law in 2016, establishes the Healthy Soils Program at CDFA to provide incentives to farmers. It enables financial support for on-farm demonstration projects that "result in greenhouse gas benefits across all farming types with the intent to establish or promote healthy soils". It defines healthy soils as "soils that enhance their continuing capacity to function as a biological system, increase soil organic matter, improve soil structure and water-and nutrient-holding capacity, and result in net long-term greenhouse gas benefits."

As noted in the Cross-Sector Interactions section, State and local efforts to manage land for carbon sequestration must work in conjunction with existing plans, incentives, and programs protecting California's water supply, agricultural lands, and wildlife habitat. This Scoping Plan fits within a wide range of ongoing planning efforts throughout the State to advance economic and environmental priorities associated with natural and working lands.

The Role of Forests in Emissions Reductions and Carbon Sequestration

Decades of fire exclusion, coupled with an extended drought and the impacts of climate change, have increased the size and intensity of wildfires and bark beetle infestations; exposed millions of urban and rural residents to unhealthy smoke-laden air from wildfires; and threatened progress toward meeting the state's long-term climate goals. Managing forests in California to be healthy, resilient net sinks of carbon is a vital part of California's climate change policy.

More than 100 million trees are dead, and recent wildfires have been among the most destructive and expensive in state history. As many as 15 million acres of California forests are estimated to be unhealthy and in need of some form of restoration, including more than 9 million acres managed by federal land management agencies and 6 million acres of State and privately managed forests.

California's urban forests also face multiple challenges, including drought and invasive exotic insects. Urban forests require maintenance to preserve the multiple values they provide and merit expansion to sequester carbon and secure other benefits to urban dwellers and the State.

The California Forest Carbon Plan (FCP), being developed by the Forest Climate Action Team (FCAT), seeks to establish California's forests as a more resilient and reliable long-term carbon sink, rather than a GHG and black carbon emission source, and confer additional ecosystem benefits through a range of management strategies.²¹² The FCP emphasizes working collaboratively at the watershed or landscape scale to restore resilience to all forestlands in the state.

The current draft of the FCP places carbon sequestration and reducing black carbon and GHG emissions as one set of management objectives in the broader context of forest health and a range of other important forest co-benefits. California will manage for carbon alongside wildlife habitat, watershed protection, recreational access, traditional tribal uses, public health and safety, forest products, and local and regional economic development.

212 <http://www.fire.ca.gov/fcat/>

Federally managed lands play an important role in the achievement of the California climate goals established in AB 32 and subsequent related legislation and plans. Over half of the forestland in California is managed by the federal government, primarily by the USDA Forest Service Pacific Southwest Region, and these lands comprise the largest potential forest carbon sink under one ownership in the state. Several regulatory, policy, and financial challenges have hindered the ability of the Forest Service and Department of Interior agencies (Bureau of Land Management and National Park Service) to increase the pace and scale of restoration needed, such as the current budget structure to fund wildland fire suppression and the procedural requirements of a number of federal environmental and planning statutes. The State of California must continue to work closely and in parallel to the federal government's efforts to resolve these obstacles and achieve forest health and resilience on the lands that federal agencies manage.

Protection of Land and Land Use

California will continue to pursue development and new infrastructure construction patterns that avoid greenfield development, limit conflicts with neighboring land uses, and increase conservation opportunities for NWL to reduce conversion to intensified uses. Success will depend on working through local and regional land use planning and permitting, as well as developing incentives for participation by local governments and individual landowners.

Enhance Carbon Sequestration and Resilience through Management and Restoration

California will increase efforts to manage and restore land to secure and increase carbon storage and minimize GHG and black carbon emissions in a sustainable manner so that the carbon bank is resilient and provides other benefits such as water quality, habitat and recreation.

One tool to demonstrate the potential for greater management and restoration on NWL is the CALAND model. As detailed in the Discussion Draft²¹³ and discussed above, it considers a variety of management and restoration activities employed across the State. Version 1 of the CALAND model considered two potential scenarios, a "low" and a "high" rate of implementation to 2030, with resulting carbon sequestration outcomes to 2050. The acreages given in the "low" scenario all represent feasible implementation on public and private lands beyond current rates for the listed activity, given availability of additional funding and other supporting resources. The "high" scenario represents a more ambitious approach, requiring new programs and policies, including collaboration with federal partners, to support implementation.

The activities presented in the Discussion Draft and Version 2 of CALAND are not inclusive of all activities under this strategy. Modeling will continue beyond finalization of the Scoping Plan. Agencies and modelers will continue to identify and analyze land management and restoration activities to advance the State's climate goals and improvements in modeling projections or other quantification protocols.

Management and restoration activities under consideration to help reduce GHG emissions beyond those identified in initial modeling include, but are not limited to the following:

- Forest fuel reduction treatments, reforestation, other restoration activities, prescribed fire and managed ignition.
- Restoration of mountain meadows, managed wetlands in the Sacramento San Joaquin Delta, coastal wetlands and desert habitat.
- Increasing the extent of eelgrass beds.
- Creation and management of parks and other greenspace in urban areas, including expansion of the existing urban tree canopy.
- Implementation of U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) management practices suitable for California agriculture including those practices identified in the Healthy Soils Incentive Program.
- Compost application to irrigated cropland.

Additional potential tools to encourage these activities include working with the federal government to fund more management on federal lands, mitigating for land conversion (as modeled by the High Speed Rail Authority), and revisiting the Forest Practices Act to enhance carbon sequestration benefits associated with timber production activities.

213 www.arb.ca.gov/cc/scopingplan/2030target_sp_dd120216.pdf

Innovate NWL Waste Utilization Pathways

Excess materials generated by commercial agricultural and forestry operations, biomass and wood harvested through forest health and restoration treatments, and material that is generated in response to Tree Mortality Emergency activities, should be used in a manner that minimizes GHG and black carbon emissions and promotes public and environmental health. The Legislature and Governor Brown set an ambitious goal of 75 percent recycling, composting or source reduction of solid waste in landfills by 2020. The State and stakeholders must develop targeted policies or incentives to support durable markets for all of this diverted material. Market opportunities include production of renewable electricity and biofuels, durable wood products, compost and other soil amendments, animal feed and bedding, and other uses. Research, development, and implementation activities in energy, wood products, waste, and soil amendment fields should be spatially-scaled to better link waste generation with infrastructure development.

The goals of this sector, with the potential to reduce GHGs and complement the measures and policies identified in Chapter 2, are described in Looking to the Future. The development of the Implementation Plan will spur thinking and exploration of innovation that may help the State achieve its long-term climate goals.

Waste Management

The Waste Management sector covers all aspects of solid waste²¹⁴ and materials management including reduction/reuse; recycling, and remanufacturing of recovered material; composting and in-vessel (anaerobic and aerobic) digestion; biomass management (chip and grind, composting, biomass conversion); municipal solid waste transformation; and landfilling. This sector also includes market development programs, such as the State's recycled-content product procurement program and a range of grant and loan programs. Data from CalRecycle's report, *2014 Disposal Facility-Based Characterization of Solid Waste in California*, shows that materials, such as organics, that decompose in landfills and generate methane comprise a significant portion of the waste stream. Methane is a potent SLCP with a global warming potential 25 times greater than that of carbon dioxide on a 100-year time horizon and more than 70 times greater than that of carbon dioxide on a 20-year time horizon.²¹⁵

Within CARB's greenhouse gas inventory, emissions from the waste management sector consist of methane and nitrous oxide emissions from landfills and from commercial-scale composting, with methane being the primary contributor to the sector's emissions. The sector emitted 8.85 MMTCO₂e in 2014, comprising approximately 2 percent of the State's GHG emissions.

Emissions from recycling and waste have grown by 19 percent since 2000. The majority of those emissions are attributed to landfills, despite the majority of landfills having gas collection systems in place.²¹⁶ Landfill emissions account for 94 percent of the emissions in this sector, while compost production facilities make up a small fraction of emissions.²¹⁷ The annual amount of solid waste deposited in California landfills grew from 37 million tons in 2000 to its peak of 46 million tons in 2005, followed by a declining trend until 2009 when landfilled solid waste stabilized to relatively constant levels. Landfill emissions are driven by the total waste-in-place, rather than year-to-year fluctuation in annual deposition of solid waste, as the rate and volume of gas produced during decomposition depends on the characteristics of the waste and a number of environmental factors. As a result, waste disposed in a given year contributes to emissions that year and in subsequent years.

In addition to direct emissions, the reduction, reuse, and recycling of waste materials decreases upstream GHG emissions associated with the extraction and processing of virgin materials and their use in production and transport of products. Although many of these upstream GHG emissions happen outside of California, California's waste policies can reduce both local and global GHG emissions and create jobs within the State.

214 In general, the term solid waste refers to garbage, refuse, sludges, and other discarded solid materials resulting from residential activities, and industrial and commercial operations. This term generally does not include solids or dissolved material in domestic sewage or other significant pollutants in water such as silt, dissolved or suspended solids in industrial wastewater effluents, dissolved materials in irrigation return flows or other common water pollutants.

215 Intergovernmental Panel on Climate Change. 2007. Climate Change 2007: Working Group I: The Physical Science Basis. 2.10.2 Direct Global Warming Potentials. Fourth Assessment Report. www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html

216 CARB. 2013. California Greenhouse Gas Inventory for 2000–2013 – by Category as Defined in the 2008 Scoping Draft Plan (based upon IPCC Fourth Assessment Report's Global Warming Potentials).

217 CARB. 2016. 2016 Edition California GHG Emission Inventory. California Greenhouse Gas Emission Inventory: 2000–2014. Version June 17, 2016.

While landfills are an effective and relatively safe way to manage some waste, disposal-centric activities result in squandering valuable resources and generate landfill gases as well as other risks. A large fraction of the organics in the waste stream can be diverted from landfills to composting or digestion facilities to produce beneficial products. Moreover, food waste is the largest component of organics disposed in landfills; a portion of this is edible and should be captured at its source and, for example, provided to food banks to feed people in need. A State waste management sector “loading order” should focus more attention on reducing how much waste we generate and recovering and recycling whatever resources we can, using landfills as a last resort.

Landmark initiatives like the Integrated Waste Management Act of 1989 (AB 939) demonstrate California’s efforts to build communities that consume less, recycle more, and take resource conservation to higher and higher levels. Statewide, Californians achieved a 49 percent recycling rate in 2014, and recycling programs support an estimated 75,000 to 115,000 green jobs in California. If California were to achieve a 75 percent statewide solid waste recycling rate by 2020—a goal set out by the Legislature in AB 341 (Chesboro, Chapter 476, Statutes of 2011)—by recycling and remanufacturing at in-state facilities, the State could potentially generate an additional 100,000 green jobs.²¹⁸ In addition to employment contributions, diversion of organic waste from landfills can generate positive environmental impacts. Compost from organic matter provides soil amendments to revitalize farmland, reduces irrigation and landscaping water demands, contributes to erosion control in fire-ravaged landscapes, and potentially increase long-term carbon storage in rangelands. Production and use of bioenergy in the form of biofuels and renewable natural gas has the potential to reduce dependency on fossil fuels for the transportation sector. For the energy sector, however, renewable natural gas faces safety, feasibility, and cost issues.

The State has a robust waste management system in place, with established programs that reduce air emissions through activities such as gas collection systems from landfills²¹⁹ and stringent recycling mandates. AB 939 required cities and counties to reduce the amount of waste going to landfills by 50 percent in 2000, and municipalities have nearly universally met this mandate. Californians dispose about 30 million tons of solid waste in landfills each year. To further reduce landfilled solid waste, the Legislature adopted AB 341 to achieve more significant waste reductions by setting a goal that 75 percent of solid waste generated be reduced, recycled, or composted by 2020, and by mandating commercial recycling. AB 1826 (Chesboro, Chapter 727, Statutes of 2014) added requirements regarding mandatory commercial organics recycling.

Although solid waste management has evolved over the last 27 years and diversion rates (which include more than recycling) have increased more than six-fold since 1989, if no further changes in policy are made, the State’s growing population and economy will lead to higher amounts of overall disposal along with associated increases in GHG emissions. The pathway to reducing disposal and associated GHG emissions will require significant expansion of the composting, anaerobic digestion, and recycling manufacturing infrastructure in the State.

To help reduce GHG emissions by 40 percent below 1990 levels by 2030 and meet California’s waste reduction goals, California’s waste management sector strives to achieve in-state processing and management of waste generated in California. To carry out this vision, we must work with residents and producers to reduce the volume of waste generated overall and capitalize on technology and social changes that might enable waste reduction. Packaging comprises approximately 8 million tons of waste landfilled in California annually, or about one quarter of the State’s total disposal stream. To reduce the climate change footprint of packaging, the State is promoting the inclusion of source reduction principles in packaging and product design; fostering recycling and recyclability as a front end design parameter for packaging and products that cannot be reduced; and encouraging recycling markets and market development for recycled-content products and packaging. CalRecycle is developing a packaging policy model containing components necessary for a mandatory comprehensive, statewide packaging program in California; this would need to be legislatively enacted to achieve a packaging reduction goal, such as 50 percent by 2030. CalRecycle is also continuing to work with stakeholder organizations and industry to explore complementary voluntary activities that have the potential to significantly decrease packaging disposal in California. In addition, large-scale shifts in materials management will be necessary, including steps to maximize recycling and diversion from landfills

218 CalRecycle. 2013. AB 341’s 75 Percent Goal and Potential New Recycling Jobs in California by 2020. July. www.calrecycle.ca.gov/Publications/Documents/1463/20131463.pdf

219 CARB approved a regulation to reduce methane from municipal solid waste landfills as a discrete early action measure under AB 32. The regulation became effective June 17, 2010. Additional information is available at: www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf

and build the necessary infrastructure to support a sustainable, low carbon waste management system within California. Working together, State and local agencies will identify ways to increase the use of waste diversion alternatives and expand potential markets, obtain funds and incentives for building the infrastructure and strengthening markets, and evaluate the need for additional research to achieve California's GHG reduction and waste management goals.

Additional legislation codified since the First Scoping Plan Update outlines new opportunities and requirements to reduce GHG emissions from the waste sector, with a focus on reducing organic waste sent to landfills. SB 605 (Lara, Chapter 523, Statutes of 2014) requires that CARB develop a strategy to reduce SLCPs and SB 1383 requires the strategy to be implemented by January 1, 2018. CARB's recently adopted SLCP Reduction Strategy includes organic waste diversion targets for 2020 and 2025 consistent with SB 1383 to reduce methane emissions from landfills. It requires CalRecycle, in consultation with CARB, to adopt regulations to achieve statewide disposal targets to reduce landfilling of organic waste by: (1) 50 percent from the 2014 level by 2020, and (2) 75 percent from the 2014 level by 2025. Under SB 1383, of the edible food destined for the organic waste stream, not less than 20 percent is to be recovered to feed people in need by 2025. The regulations are to take effect on or after January 1, 2022, and CalRecycle, in consultation with CARB, must analyze the progress that the waste management sector, State government, and local government have made in achieving the 2020 and 2025 goals by July 1, 2020. It is estimated that the combined effect of the food waste prevention and rescue programs and organics diversion from landfills will reduce 4 MMTCO₂e of methane in 2030 (using a 20-year GWP), but one year of waste diversion in 2030 is expected to result in a reduction of 14 MMTCO₂e of emissions over the lifetime of waste decomposition.

Looking to the Future

This section outlines the high-level objectives and goals to reduce GHGs in this sector.

Goals

- Take full ownership of the waste generated in California.
- View waste as a resource and convert waste from all sectors to beneficial uses.
- Develop a sustainable, low carbon waste management system that processes collected waste within California and generates jobs, especially in disadvantaged communities.
- Maximize recycling and diversion from landfills.
- Reduce direct emissions from composting and digestion operations through improved technologies.
- Build the infrastructure needed to support a sustainable, low carbon waste management system within California.
- Increase organics markets which complement and support other sectors.²²⁰
- Capture edible food before it enters the waste stream and provide to people in need.
- Increase production of renewable transportation fuels from anaerobic digestion of waste.
- Recognize the co-benefits of compost application.

Cross-Sector Interactions

The waste management sector interacts with all of the other sectors of the State's economy. Reducing waste, including food waste, is key to reducing the State's overall carbon footprint. Additionally, replacing virgin materials with recycled materials reduces the energy and GHGs associated with the goods we produce and consume.

California leads the United States in agricultural production in terms of value and crop diversity. Soil carbon is the main source of energy for important soil microbes and is key for making nutrients available to plants. Waste-derived compost and other organic soil amendments support the State's Healthy Soils Initiative being implemented by CDFA. In addition, the use of compost to increase soil organic matter in the agricultural sector provides other benefits, including reduced GHG emissions, conserved water, reduced synthetic (petroleum-based) fertilizer and herbicide use, and sequestered carbon.

²²⁰ Examples may include renewable energy (biogas to renewable transportation fuels or electricity); soils (application of organics to agricultural soils for building soil organic matter and conserving water; application of organics to mulch for erosion control; application of organics to rangelands for increased carbon sequestration); and forests (support use of forest residues for erosion control; stabilization of fire-ravaged lands).

Efforts to Reduce Greenhouse Gases

The measures below include some required and new potential measures to help achieve the State's 2030 target and to support the high-level objectives for this sector. Some measures may be designed to directly address GHG reductions, while others may result in GHG reductions as a co-benefit. In addition, to move forward with the goals of the waste management sector and achieve the 2030 target, certain actions are recommended to help set the groundwork. These actions affect several broad areas and are necessary for reducing the challenges facing this sector, and they are listed below as supporting actions.

Ongoing and Proposed Measures

- Continue implementation of the Landfill Methane Control Measure.
- Continue implementation of the Mandatory Commercial Recycling Regulation and the Mandatory Commercial Organics Recycling requirements.
- As required by SB 1383:
 - By 2018, CARB will implement the SLCP Strategy.
 - CalRecycle will develop regulations to require 50 percent organic waste diversion from landfills from 2014 levels by 2020 and 75 percent by 2025, including programs to achieve an edible food waste recovery goal of 20 percent below 2016 levels by 2025. The regulations shall take effect on or after January 1, 2022. By July 1, 2020, analyze the progress that the waste sector, State government, and local governments have made in achieving these goals.
 - CEC will develop recommendations for the development and use of renewable gas as part of the 2017 Integrated Energy Policy Report. Based on these recommendations, adopt policies and incentives to significantly increase sustainable production and use of renewable gas.

Potential Additional or Supporting Actions

The actions below have the potential to reduce GHGs and complement the measures and policies identified in Chapter 2. These are included to spur thinking and exploration of innovation that may help the State achieve its long-term climate goals.

- Establishing a sustainable State funding source (such as an increased landfill tip fee and new generator charge) for development of waste management infrastructure, programs, and incentives.
- Working with residents and producers to reduce the volume of waste generated overall and capitalize on technology and social changes that might enable waste reduction.
- Increasing organics diversion from landfills, building on established mandates (AB 341's 75 percent by 2020 solid waste diversion goal, AB 1594,²²¹ AB 1826,²²² AB 876²²³) and new short-lived climate pollutant targets for 2025 (SB 605, SB 1383) to be accomplished via prevention (including food rescue), recycling, composting/digestion, and biomass options.
- Addressing challenges and issues associated with significant expansion and construction of organics and recycling infrastructure in California that is needed to achieve recycling and diversion goals. Challenges and issues include permitting, grid/pipeline connection, funding, local siting, markets, and research.
- Developing programmatic Environmental Impact Reports (EIRs) and model permit and guidance documents to assist in environmental review and CEQA for new facilities.
- Providing incentives for expanded and new facilities to handle organics and recyclables to meet 2020 and 2030 goals.
- Providing incentives to develop and expand food rescue programs to reduce the amount of edible food being sent to landfills.
- Further quantifying co-benefits of compost products and addressing regulatory barriers that do not provide for consideration of co-benefits.
- Supporting existing and new clean technologies and markets for excess woody biomass from urban areas, forests, and agriculture.
- Supporting the development of transportation fuel production at digestion facilities to generate renewable transportation fuels.

²²¹ Assembly Bill 1594, Waste Management (Williams, Chapter 719, Statutes of 2014).

²²² Assembly Bill 1826, Solid Waste: Organic Waste (Chesbro, Chapter 727, Statutes of 2014).

²²³ Assembly Bill 876, Compostable Organics (McCarty, Chapter 593, Statutes of 2015).

- Resolving issues of pipeline injection and grid connection to make renewable energy projects competitive.
- Supporting the use of available capacity at wastewater treatment plants that have digesters to process food waste.
- Working with local entities to provide a supportive framework to advance community-wide efforts that are consistent with, or exceed, statewide goals.
- Supporting research and development and pathways to market for dairy and codigestion digesters, including pipeline injection and interconnection.
- Supporting research on digestate characterization and end products.

Water

Water is essential to all life, and is vital to our overall health and well-being. A reliable, clean, and abundant supply of water is also a critical component of California’s economy and has particularly important connections to energy, food, and the environment. California’s water system includes a complex infrastructure that has been developed to support the capture, use, conveyance, storage, conservation, and treatment of water and wastewater. This elaborate network of storage and delivery systems enables the State to prosper and support populations, amidst wide variability in annual precipitation rates and concentration of rain north of Sacramento, through storing and moving water when and where it is needed.

Local water agencies play an important role in delivering water to communities, farms, and businesses. Some purchase water from the major State and federal projects, treat the water as needed, and deliver it to their customers; others act as wholesale agencies that buy or import water and sell it to retail water suppliers. Some agencies operate their own local water supply systems, including reservoirs and canals that store and move water as needed. Many agencies rely on groundwater exclusively, and operate local wells and distribution systems. In recent decades, local agencies have developed more diversified sources of water supplies. Many agencies use a combination of imported surface water and local groundwater, and also produce or purchase recycled water for end uses such as landscape irrigation.²²⁴

The State’s developed surface and groundwater resources support a variety of residential, commercial, industrial, and agricultural activities. California’s rapidly growing population—estimated to reach 44 million by 2030²²⁵ – is putting mounting pressure on the water supply system. In the future, the ability to meet most new demand for water will come from a combination of increased conservation and water use efficiency, improved coordination of management of surface and groundwater, recycled water, new technologies in drinking water treatment, groundwater remediation, and brackish and seawater desalination.²²⁶

One of the State’s largest uses of energy is attributed to several aspects of the water life cycle, including end uses such as heating and cooling, and water treatment and conveyance. Ten percent of the State’s energy use is associated with water-related end uses, while water and wastewater systems account for 2 percent of the State’s energy use.²²⁷ Therefore, as water demand grows, energy demand may increase concurrently. Population growth drives demand for both water and energy resources, so both grow at about the same rates and in many of the same geographic areas.²²⁸ This dynamic is further exacerbated by the precipitation-population mismatch between Northern and Southern California. Since the greatest energy consumption related to water is from delivery to end uses, the potential for energy savings also resides with water end users, where water conservation and efficiency play an important role.

The principal source of GHG emissions from the water sector comes from the fossil fuel-based energy consumed for water end uses (e.g., heating, cooling, pressurizing, and industrial processes), and the fossil fuel-based energy used to “produce” water (e.g., pump, convey, treat). Therefore, emissions reductions strategies are primarily associated with reducing the energy intensity of the water sector. Energy intensity is a measure of the amount of energy required to take a unit of water from its origin (such as a river or aquifer)

224 California Department of Water Resources. Regional Energy Intensity of Water Supplies.

www.water.ca.gov/climatechange/RegionalEnergyIntensity.cfm

225 <http://www.dof.ca.gov/Forecasting/Demographics/projections/>

226 California Natural Resources Agency, California Department of Food and Agriculture, and California Environmental Protection Agency. California Water Action Plan.

227 California Department of Water Resources. Water-Energy Nexus: Statewide. Web page accessed November 2016 at: www.water.ca.gov/climatechange/WaterEnergyStatewide.cfm.

228 Ibid

and extract and convey it to its end use.²²⁹ Within California, the energy intensity of water varies greatly depending on the geography, water source, and end use. The California Department of Water Resources (DWR) subdivides the State into 10 regions corresponding to the State’s major drainage basins. An interactive map on the DWR website allows users to see a summary of the energy intensity of regional water supplies, ignoring end-use factors.²³⁰ As the energy sector is decarbonized through measures such as increased renewable energy and improved efficiency, energy intensities will also be reduced. It is also important to note that end user actions to reduce water consumption or replace fresh water with recycled water do not automatically translate into GHG reductions. The integrated nature of the water supply system means that a reduction by one end user can be offset by an increase in consumption by another user. Likewise, use of recycled water has the potential to reduce GHGs if it replaces, and not merely serves as an alternative to, an existing, higher-carbon water supply.

The State is currently implementing several targeted, agricultural, urban, and industrial-based water conservation, recycling, and water use efficiency programs as part of an integrated water management effort that will help achieve GHG reductions through reduced energy demand within the water sector. Appendix H highlights the more significant existing policies, programs, measures, regulations, and initiatives that provide a framework for helping achieve GHG emissions reductions in this sector.

While it is important for every sector to contribute to the State’s climate goals, ensuring universal access to clean water as outlined in AB 685 (Eng, Chapter 524, Statutes of 2012), also known as the “human right to water” bill, should take precedence over achieving GHG emissions reductions from water sector activities where a potential conflict exists. AB 685 states that it is the policy of the State that “every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” As described in this section, water supplies vary in energy intensity and resulting GHGs, depending on the source of the water, treatment requirements, and location of the end user.

Looking to the Future

This section outlines the high-level objectives and goals to reduce GHGs in this sector.

Goals

- Develop and support more reliable water supplies for people, agriculture, and the environment, provided by a more resilient, diversified, sustainably managed water resources system with a focus on actions that provide direct GHG reductions.
- Make conservation a California way of life by using and reusing water more efficiently through greater water conservation, drought tolerant landscaping, stormwater capture, water recycling, and reuse to help meet future water demands and adapt to climate change.
- Develop and support programs and projects that increase water sector energy efficiency and reduce GHG emissions through reduced water and energy use.
- Increase the use of renewable energy to pump, convey, treat, and utilize water.
- Reduce the carbon footprint of water systems and water uses for both surface and groundwater supplies through integrated strategies that reduce GHG emissions while meeting the needs of a growing population, improving public safety, fostering environmental stewardship, aiding in adaptation to climate change, and supporting a stable economy.

Cross-Sector Interactions

Water, energy, food, and ecosystems are inextricably linked, and meeting future climate challenges will require an integrated approach to managing the resources in these sectors.

Water is used in various applications in the energy sector, ranging in intensity from cooling of turbines and other equipment at power plants to cleaning solar photovoltaic panels. In 2003, CEC adopted a water conservation policy for power plants to limit the use of freshwater for power plant cooling, and has since encouraged project

²²⁹ A broader definition of energy intensity could consider the “downstream” energy (i.e., wastewater treatment) as well as the upstream components. More robust data are needed, and the State is working to better quantify these upstream and downstream emissions.

²³⁰ California Department of Water Resources. Regional Energy Intensity of Water Supplies. www.water.ca.gov/climatechange/RegionalEnergyIntensity.cfm

owners proposing to build new power plants in California to reduce water consumption with water-efficiency technologies such as dry cooling and to conserve fresh water by using recycled water. Likewise, energy is used in multiple ways and at multiple steps in water delivery and treatment systems, including energy for heating and chilling water; treating and delivering drinking water; conveying water; extracting groundwater; desalination; pressurizing water for irrigation; and wastewater collection, treatment, and disposal.

Although GHG reduction strategies for the water sector have the closest ties to energy, the water sector also interacts with the natural and working lands, agricultural, waste management, and transportation sectors. Water flows from mountains to downstream regions through natural and working lands, which provide habitat for many species and function to store water, recharge groundwater, naturally purify water, and moderate flooding. Protection of key lands from conversion results in healthier watersheds by reducing polluted runoff and maintaining a properly functioning ecosystem. California is the United States' leading agricultural production state in terms of value and crop diversity. Approximately nine million acres of farmland in California are irrigated.²³¹ In addition, water use is associated with livestock watering, feedlots, dairy operations, and other on-farm needs. Altogether, agriculture uses about 40 percent of the State's managed water supply.²³² In the end, agricultural products produced in California are consumed by humans throughout the world as food, fiber, and fuel. Wastewater treatment plants provide a complementary opportunity for the waste management sector to help process organic waste diversion from landfills. Treatment plants with spare capacity can potentially accommodate organic waste for anaerobic co-digestion of materials such as food waste and fats, oil, and grease from residential, commercial, or industrial facilities to create useful by-products such as electricity, hydrogen, biofuels, and soil amendments.²³³ The water sector is also essential to our community health and long-term well-being, and measures must ensure that we continue to have access to clean and reliable sources of drinking water. Climate change threatens to impact our water supplies, for example, with long-term droughts leading to wells and other sources of water running dry. This can have devastating consequences, especially on communities already vulnerable and sensitive to changes in their water supply and natural hydrological systems, including rural communities who have limited options for water supplies. Water conservation and management strategies that are energy efficient can also ensure a continued supply of water for our health and well-being.

Efforts to Reduce Greenhouse Gases

The measures below include some required and new potential measures to help achieve the State's 2030 target and to support the high-level objectives for this sector. Some measures may be designed to directly address GHG reductions, while others may result in GHG reductions as a co-benefit. In addition, several recommended actions are identified to help the water sector move forward with the identified goals and measures to achieve the 2030 target; these are listed as supporting actions.

Ongoing and Proposed Measures

- As directed by Governor Brown's Executive Order B-37-16, DWR and State Water Resources Control Board (SWRCB) will develop and implement new water use targets to generate more statewide water conservation than existing targets (the existing State law requires a 20 percent reduction in urban per capita water use by 2020 [SBx7-7, Steinberg, Chapter 4, Statutes of 2009]). The new water use targets will be based on strengthened standards for indoor use, outdoor irrigation, commercial, industrial, and institutional water use.
- SWRCB will develop long-term water conservation regulation, and permanently prohibit practices that waste potable water.
- DWR and SWRCB will develop and implement actions to minimize water system leaks, and to set performance standards for water loss, as required by SB 555 (Wolk, Chapter 679, Statutes of 2015).
- DWR and CDFA will update existing requirements for agricultural water management plans to increase water system efficiency.

231 Hanson, Blaine. No date. Irrigation of Agricultural Crops in California. PowerPoint. Department of Land, Air and Water Resources University of California, Davis. www.arb.ca.gov/fuels/lcfs/workgroups/lcfsustain/hanson.pdf

232 Applied water use is the official terminology used by DWR. "Applied water refers to the total amount of water that is diverted from any source to meet the demands of water users without adjusting for water that is used up, returned to the developed supply, or considered irrecoverable."

233 An example of a resource recovering project that can help achieve methane reductions includes fuel cells that are integrated into wastewater treatment plants for both onsite heat and power generation and the production of renewable hydrogen.

- CEC will certify innovative technologies for water conservation and water loss detection and control.
- CEC will continue to update the State’s Appliance Efficiency Regulations (California Code of Regulations, Title 20, Sections 1601–1608) for appliances offered for sale in California to establish standards that reduce energy consumption for devices that use electricity, gas, and/or water.
- California Environmental Protection Agency (CalEPA) will oversee development of a voluntary registry for GHG emissions resulting from the water-energy nexus, as required by SB 1425 (Pavley, Chapter 596, Statutes of 2016).
- The State Water Project has entered long-term contracts to procure renewable electricity from 140 MW solar installations in California.
- As described in its Climate Action Plan, DWR will continue to increase the use of renewable energy to operate the State Water Project.

Overall, these actions will contribute to the broader energy efficiency goals discussed in the Low Carbon Energy section of this chapter.

Potential Additional or Supporting Actions

The actions below have the potential to reduce GHGs and complement the measures and policies identified in Chapter 2. These are included to spur thinking and exploration of innovation that may help the State achieve its long-term climate goals.

- Where technically feasible and cost-effective, local water and wastewater utilities should adopt a long-term goal to reduce GHGs by 80 percent below 1990 levels by 2050 (consistent with DWR’s Climate Action Plan), and thereafter move toward low carbon or net-zero carbon water management systems.
- Local water and wastewater utilities should develop distributed renewable energy where feasible, using the expanded Local Government Renewable Energy Bill Credit (RES-BCT) tariff and new Net Energy Metering (which allow for installation without system size limit).
- In support of the Short-Lived Climate Pollutant Strategy, encourage resource recovering wastewater treatment projects to help achieve the goal of reducing fugitive methane by 40 percent by 2030, to include:
 - Determining opportunities to support co-digestion of food-related waste streams at wastewater treatment plants.
 - Incentivizing methane capture systems at wastewater treatment plants to produce renewable electricity, transportation fuel, or pipeline biomethane.
- Support compact development and land use patterns, and associated conservation and management strategies for natural and working lands that reduce per capita water consumption through more water-efficient built environments.

Chapter 5

ACHIEVING SUCCESS

Meeting, and exceeding, our mandated GHG reduction goals in 2020 and through 2030 requires building on California’s decade of success in implementing effective climate policies. State agencies are increasingly coordinating planning activities to align with overarching climate, clean air, social equity, and broader economic objectives.

However, to definitely tip the scales in favor of rapidly declining emissions, we also need to reach beyond State policy-making and engage all Californians. Further progress can be made by supporting innovative actions at the local level—among governments, small businesses, schools, and individual households. Ultimately, success depends on a mix of regulatory program development, incentives, institutional support, and education and outreach to ensure that clean energy and other climate strategies are clear, winning alternatives in the marketplace—to drive business development and consumer adoption.

Ongoing Engagement with Environmental Justice Communities

CARB continues seek ways to improve implementation of AB 32 and the unique set of impacts facing environmental justice communities. However, CARB’s environmental justice efforts reach far beyond climate change. In 2001, the Board approved CARB’s “Policies and Actions for Environmental Action,”²³⁴ which expresses a broad commitment to environmental justice and makes it integral to all of CARB’s programs, consistent with State directives at the time. Though over the years CARB has taken on a wide array of activities aimed at reducing environmental burdens on environmental justice communities, it has not knitted its various efforts together in a coherent narrative or maximized the impact of these activities by leveraging them off of each other.

This year, CARB appointed its first executive-level environmental justice liaison. Under her leadership, CARB will lay a roadmap for better serving California’s environmental justice communities in the design and implementation of its programs, and identifying new actions CARB can take to advance environmental justice and social equity in all of its functions.

The extensive legislative framework addressing climate change, air quality, and environmental justice that has emerged since the passage of AB 32 has prompted CARB to step up its environmental justice efforts and articulate a vision that reflects the current context. CARB will initiate a public process, seeking advice and input from environmental justice advocates and other key stakeholders to inform the development of a new strategic plan for further institutionalizing environmental justice and social equity.

CARB understands that in addition to our programs to address climate change and reduce emissions of GHGs, more needs to be done to reduce exposure to toxic air and criteria pollutants and improve the quality of life in communities surrounding our largest emissions sources. To this end, and consistent with AB 617, AB 197, AB 1071, SB 535 and AB 1550, we will actively engage EJ advocates, communities, and relevant air districts in the development of programs that improve air quality and quantify the burdens placed on air quality in local communities. Measuring and monitoring air quality conditions over time and ongoing community engagement are integral to the success of CARB’s efforts. This engagement will include substantive discussions with EJ stakeholders, gathering their input and providing adequate time for review before matters are taken to the Board for decision.

234 www.arb.ca.gov/ch/programs/ej/ejpolicies.pdf

CARB's approach to environmental justice will be grounded in five primary pillars: transparency, integration, monitoring, research, and enforcement.

- **Transparency:** CARB must improve communication and engagement with environmental justice stakeholders and deepen partnerships with local communities impacted by air pollution. CARB will continue to prioritize transparency in its decision-making processes and provide better access to the air quality, toxics, and GHG data CARB collects and stewards.
- **Integration:** Besides integrating environmental justice throughout all of CARB's programs, those programs must complement each other. To that end, CARB will endeavor to break down programmatic silos so that it is able to leverage its work and achieve more effective and timely results. Focused resources in individual communities can accelerate reduction in emissions, proliferation of clean vehicles and creation of jobs in the clean energy economy, while concurrently improving public health.
- **Monitoring:** Communities should be engaged in CARB's monitoring work. They can play a critical role in collecting their own data and adding to the coverage of other air monitoring efforts (e.g., CARB, local air districts). CARB has already invested in research on low-cost monitors that are accessible by communities, and it will continue to evaluate how community monitoring can make CARB more nimble in identifying and addressing "hotspots." Mobile monitoring projects similarly will allow CARB to better serve and protect residents of disadvantaged communities. CARB will continue to build partnerships with local communities and help build local capacity through funding and technical assistance.
- **Research:** CARB's research agenda is core to achieving its mission. To ensure that the research done by CARB responds to environmental justice concerns and has the greatest potential to improve air quality and public health in disadvantaged communities, CARB will engage communities groups early in the development of its research agenda and the projects that flow out from that agenda.
- **Enforcement:** Disadvantaged communities are often impacted by many sources of pollution. In order to improve air quality and protect public health, CARB will prioritize compliance with legal requirements, including enforcement actions if necessary, in environmental justice communities to ensure emissions of toxic and criteria pollutants in these communities are as low as possible.

Our inclusive approaches to further environmental justice in California's local communities may include an array of direct regulation, funding, and community capacity-building. CARB will continue to actively implement the provisions of AB 617, AB 197, AB 1071, SB 535, AB 1550, and other laws to better ensure that environmental justice communities see additional benefits from our clean air and climate policies. Our inclusive approaches to further environmental justice in California's local communities may include an array of direct regulation, funding, and community capacity-building.

Enabling Local Action

Local governments are essential partners in achieving California's goals to reduce GHG emissions. Local governments can implement GHG emissions reduction strategies to address local conditions and issues and can effectively engage citizens at the local level. Local governments also have broad jurisdiction, and sometimes unique authorities, through their community-scale planning and permitting processes, discretionary actions, local codes and ordinances, outreach and education efforts, and municipal operations. Further, local jurisdictions can develop new and innovative approaches to reduce GHG emissions that can then be adopted elsewhere. For example, local governments can develop land use plans with more efficient development patterns that bring people and destinations closer together in more mixed-use, compact communities that facilitate walking, biking, and use of transit. Local governments can also incentivize locally generated renewable energy and infrastructure for alternative fuels and electric vehicles, implement water efficiency measures, and develop waste-to-energy and waste-to-fuel projects. These local actions complement statewide measures and are critical to supporting the State's efforts to reduce emissions. Local efforts can deliver substantial additional GHG and criteria emissions reductions beyond what State policy can alone, and these efforts will sometimes be more cost-effective and provide more cobenefits than relying exclusively on top-down statewide regulations to achieve the State's climate stabilization goals. To ensure local and regional engagement, it is also recommended local jurisdictions make readily available information regarding ongoing and proposed actions to reduce GHGs within their region.

Many cities and counties are already setting GHG reduction targets, developing local plans, and making progress toward reducing emissions. The Statewide Energy Efficiency Collaborative recently released a report, *The State of Local Climate Action: California 2016*,²³⁵ which highlights local government efforts, including:

- In California, 60 percent of cities and over 70 percent of counties have completed a GHG inventory, and 42 percent of local governments have completed a climate, energy, or sustainability plan that directly addresses GHG emissions. Many other community-scale local plans, such as general plans, have emissions reduction measures incorporated as well (see Governor's Office of Planning and Research [OPR] Survey questions 23 and 24).²³⁶
- Over one hundred California local governments have developed emissions reduction targets that, if achieved, would result in annual reductions that total 45 MMTCO₂e by 2020 and 83 MMTCO₂e by 2050.²³⁷

Local air quality management and air pollution control districts also play a key role in reducing regional and local sources of GHG emissions by actively integrating climate protection into air quality programs. Air districts also support local climate protection programs by providing technical assistance and data, quantification tools, and even funding.²³⁸ Local metropolitan planning organizations (MPOs) also support the State's climate action goals via sustainable communities strategies (SCSs), required by the Sustainable Communities and Climate Protection Act of 2008 (SB 375, Chapter 728, Statutes of 2008). Under SB 375, MPOs must prepare SCSs as part of their regional transportation plan to meet regional GHG reduction targets set by CARB for passenger vehicles in 2020 and 2035. The SCSs contain land use, housing, and transportation strategies that allow regions to meet their GHG emissions reductions targets.



To engage communities in efforts to reduce GHG emissions, CARB has partnered with Energy Upgrade California on the CoolCalifornia Challenge. It is a competition among California cities to reduce their carbon footprints and build more vibrant and sustainable communities. Three challenges have been completed. Most recently, the 2015–2016 Challenge included 22 cities and engaged nearly 3,200 households, each of which took actions to reduce energy use and carbon GHG emissions. In total, the participants reported savings of 5,638 MTCO₂ from completed actions, equivalent to emissions from more than 1,000 cars or from electricity used by more than 2,500 California homes in a year.

State agencies support these local government actions in several ways:

- CoolCalifornia.org is an informational website that provides resources that assist local governments, small businesses, schools, and households to reduce GHG emissions. The local government webpage includes carbon calculators, a climate planning resource guide, a Funding Wizard that outlines grant and loan programs, and success stories. It also features ClearPath California, a no-cost GHG inventory, climate action plan development, and tracking tool developed through the Statewide Energy Efficiency Collaborative in coordination with CARB and the Governor's Office of Planning and Research (OPR).
- Chapter 8 of OPR's General Plan Guidelines²³⁹ provides guidance for climate action plans and

235 Statewide Energy Efficiency Collaborative. 2016. State of Local Climate Action: California 2016.

californiaseec.org/wp-content/uploads/2016/10/State-of-Local-Climate-Action-California-2016_Screen.pdf

236 Governor's Office of Planning and Research. 2016. 2016 Annual Planning Survey Results. November.

www.opr.ca.gov/docs/2016_APS_final.pdf

237 These reductions include reductions from both state and local measures.

238 Examples include: (1) Bay Area Air Quality Management District (BAAQMD). 2016 Clean Air Plan and Regional Climate Protection Strategy. Available at: www.baaqmd.gov/plans-and-climate/air-quality-plans/plans-under-development; (2) California Air Pollution Control Officers Association. California Emissions Estimator Model (CalEEMod). Available at: www.caleemod.com/; (3) San Joaquin Valley Air Pollution Control District. Grants and Incentives. Available at: valleyair.org/grants/; (4) BAAQMD. Grant Funding. Available at: www.baaqmd.gov/grant-funding; (5) South Coast Air Quality Management District. Funding. Available at: www.aqmd.gov/grants-bids/funding; (6) Sacramento Metropolitan Air Quality Management District. Incentive Programs. Available at: www.airquality.org/Residents/Incentive-Programs.

239 <http://opr.ca.gov/planning/general-plan/>

other plans linked to general plans, which address the community scale approach outlined in CEQA Guidelines Section 15183.5(b), Plans for the Reduction of Greenhouse Gas Emissions.

- OPR hosts the Integrated Climate Adaptation and Resiliency Program, which is developing resources and case studies that outline the co-benefits of implementing emissions reduction strategies and addressing the impacts of climate change.
- CARB is developing a centralized database and interactive map that will display the current statewide status of local government climate action planning. Users can view and compare the details of emission inventories, planned GHG reduction targets and strategies, and other climate action details specific to each local government. This information will help jurisdictions around California identify what climate action strategies are working in other, similar jurisdictions across the State, and will facilitate collaboration among local governments pursuing GHG reduction strategies and goals. This database and map will be featured on the CoolCalifornia.org website and are anticipated to be available in 2017.
- Additional information on local government activities is available on Cal-Adapt (www.cal-adapt.org) and OPR (www.opr.ca.gov)

Further, a significant portion of the \$3.4 billion in cap-and-trade expenditures has either directly or indirectly supported local government efforts to reduce emissions, including, for example, the Affordable Housing and Sustainable Communities (AHSC) program and approximately \$142 million for project implementation and planning grants awarded under the Transformative Climate Communities program.

Climate Action through Local Planning and Permitting

Local government efforts to reduce emissions within their jurisdiction are critical to achieving the State's long-term GHG goals, and can also provide important co-benefits, such as improved air quality, local economic benefits, more sustainable communities, and an improved quality of life. To support local governments in their efforts to reduce GHG emissions, the following guidance is provided. This guidance should be used in coordination with OPR's General Plan Guidelines guidance in Chapter 8, Climate Change.²⁴⁰ While this guidance is provided out of the recognition that local policy makers are critical in reducing the carbon footprint of cities and counties, the decision to follow this guidance is voluntary and should not be interpreted as a directive or mandate to local governments.

Recommended Local Plan-Level Greenhouse Gas Emissions Reduction Goals

CARB recommends statewide targets of no more than six metric tons CO₂e per capita by 2030 and no more than two metric tons CO₂e per capita by 2050.²⁴¹ The statewide per capita targets account for all emissions sectors in the State, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer term State emissions reduction goal of 80 percent below 1990 levels by 2050.²⁴² The statewide per capita targets are also consistent with Executive Order S-3-05, B-30-15, and the Under 2 MOU that California originated with Baden-Württemberg and has now been signed or endorsed by 188 jurisdictions representing 39 countries and six continents.^{243,244} Central to the Under 2 MOU is that all signatories agree to reduce their GHG emissions to two metric tons CO₂e per capita by 2050. This limit represents California's and these other governments' recognition of their "fair share" to reduce GHG emissions to the scientifically based levels to limit global warming below two degrees Celsius. This limit is also consistent with the Paris Agreement, which sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to below 2°C.²⁴⁵

CARB recommends that local governments evaluate and adopt robust and quantitative locally-appropriate

240 <http://opr.ca.gov/planning/general-plan/>.

241 These goals are appropriate for the plan level (city, county, subregional, or regional level, as appropriate), but not for specific individual projects because they include all emissions sectors in the State.

242 This number represents the 2030 and 2050 targets divided by total population projections from California Department of Finance.

243 <http://under2mou.org/> California signed the Under 2 MOU on May 19, 2015. See under2mou.org/wp-content/uploads/2015/05/California-appendix-English.pdf and under2mou.org/wp-content/uploads/2015/05/California-Signature-Page.pdf.

244 The Under 2 MOU signatories include jurisdictions ranging from cities to countries to multiple-country partnerships. Therefore, like the goals set forth above for local and regional climate planning, the Under 2 MOU is scalable to various types of jurisdictions.

245 UNFCCC. The Paris Agreement. unfccc.int/paris_agreement/items/9485.php

goals that align with the statewide per capita targets and the State's sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the State's 1990 emissions limit established under AB 32.

Numerous local governments in California have already adopted GHG emissions reduction goals for year 2020 consistent with AB 32. CARB advises that local governments also develop community-wide GHG emissions reduction goals necessary to reach 2030 and 2050 climate goals. Emissions inventories and reduction goals should be expressed in mass emissions, per capita emissions, and service population emissions. To do this, local governments can start by developing a community-wide GHG emissions target consistent with the accepted protocols as outlined in OPR's General Plan Guidelines Chapter 8: Climate Change. They can then calculate GHG emissions thresholds by applying the percent reductions necessary to reach 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to their community-wide GHG emissions target. Since the statewide per capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the State, it is appropriate for local jurisdictions to derive evidence-based local per capita²⁴⁶ goals based on local emissions sectors and population projections that are consistent with the framework used to develop the statewide per capita targets. The resulting GHG emissions trajectory should show a downward trend consistent with the statewide objectives. The recommendation for a community-wide goal expands upon the reduction of 15 percent from "current" (2005-2008) levels by 2020 as recommended in the 2008 Scoping Plan.²⁴⁷

In developing local plans, local governments should refer to "The U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions,"²⁴⁸ (community protocol) which provides detailed guidance on completing a GHG emissions inventory at the community scale in the United States – including emissions from businesses, residents, and transportation. Quantification tools such as ClearPath California, which was developed with California agencies, also support the analysis of community-scale GHG emissions. Per the community protocol, these plans should disclose all emissions within the defined geographical boundary, even those over which the local government has no regulatory authority to control, and then focus the strategies on those emissions that the jurisdiction controls. For emissions from transportation, the community protocol recommends including emissions from trips that extend beyond the community's boundaries. Local plans should also include the carbon sequestration values associated with natural and working lands, and the importance of jurisdictional lands for water, habitat, agricultural, and recreational resources. Strategies developed to achieve the local goals should prioritize mandatory measures that support the Governor's "Five Pillars" and other key state climate action goals.²⁴⁹ Examples of plan-level GHG reduction actions that could be implemented by local governments are listed in Appendix B. Additional information and tools on how to develop GHG emissions inventories and reduction plans tied to general plans can be found in OPR's General Plan Guidelines and at CoolCalifornia.org.

These local government recommendations are based on the recognition that California must accommodate population and economic growth in a far more sustainable manner than in the past. While state-level investments, policies, and actions play an important role in shaping growth and development patterns, regional and local governments and agencies are uniquely positioned to influence the future of the built environment and its associated GHG emissions. Greenhouse gas emissions reduction strategies in Climate Action Plans (CAPs) and other local plans can also lead to important co-benefits, such as improved air quality, local economic benefits such as green jobs, more mobility choices, improved public health and quality of life, protection of locally, statewide, and globally important natural resources, and more equitable sharing of these benefits across communities.

Contributions from policies and programs, such as renewable energy and energy efficiency, are helping to achieve the near-term 2020 target, but longer-term targets cannot be achieved without land use decisions that allow more efficient use and management of land and infrastructure. Local governments have primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population growth, economic growth, and the changing needs of their jurisdictions. Land use decisions affect GHG emissions associated with transportation, water use, wastewater treatment, waste generation and treatment, energy consumption, and conversion of natural and working lands. Local land use decisions play a particularly

246 Or some other metric that the local jurisdiction deems appropriate (e.g., mass emissions, per service population)

247 2008 Scoping Plan, page 27, www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm

248 <http://icleiusa.org/publications/us-community-protocol/>

249 www.arb.ca.gov/cc/pillars/pillars.htm

critical role in reducing GHG emissions associated with the transportation sector, both at the project level, and in long-term plans, including general plans, local and regional climate action plans, specific plans, transportation plans, and supporting sustainable community strategies developed under SB 375.

While the State can do more to accelerate and incentivize these local decisions, local actions that reduce VMT are also necessary to meet transportation sector-specific goals and achieve the 2030 target under SB 32. Through developing the Scoping Plan, CARB staff is more convinced than ever that, in addition to achieving GHG reductions from cleaner fuels and vehicles, California must also reduce VMT. Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward needed reductions, but alone will not provide the VMT growth reductions needed; there is a gap between what SB 375 can provide and what is needed to meet the State's 2030 and 2050 goals. In its evaluation of the role of the transportation system in meeting the statewide emissions targets, CARB determined that VMT reductions of 7 percent below projected VMT levels in 2030 (which includes currently adopted SB 375 SCSs) are necessary. In 2050, reductions of 15 percent below projected VMT levels are needed. A 7 percent VMT reduction translates to a reduction, on average, of 1.5 miles/person/day from projected levels in 2030. It is recommended that local governments consider policies to reduce VMT to help achieve these reductions, including: land use and community design that reduces VMT; transit oriented development; street design policies that prioritize transit, biking, and walking; and increasing low carbon mobility choices, including improved access to viable and affordable public transportation and active transportation opportunities. It is important that VMT reducing strategies are implemented early because more time is necessary to achieve the full climate, health, social, equity, and economic benefits from these strategies.

Once adopted, the plans and policies designed to achieve a locally-set GHG goal can serve as a performance metric for later projects. Sufficiently detailed and adequately supported GHG reduction plans (including CAPs) also provide local governments with a valuable tool for streamlining project-level environmental review. Under CEQA, individual projects that comply with the strategies and actions within an adequate local CAP can streamline the project-specific GHG analysis.²⁵⁰ The California Supreme Court recently called out this provision in CEQA as allowing tiering from a geographically specific GHG reduction plan.²⁵¹ The Court also recognized that GHG determinations in CEQA should be consistent with the statewide Scoping Plan goals, and that CEQA documents taking a goal-consistency approach may soon need to consider a project's effects on meeting the State's longer term post-2020 goals.²⁵² The recommendation above that local governments develop local goals tied to the statewide per capita goals of six metric tons CO₂e by 2030 and no more than two metric tons CO₂e per capita by 2050 provides guidance on CARB's view on what would be consistent with the 2017 Scoping Plan and the State's long-term goals.

Production based inventories and emissions reduction programs are appropriate for local communities wanting to mitigate their emissions pursuant to CEQA Section 15183.5(b). Consumption based inventories are complementary to production based inventories and are appropriate as a background setting, disclosure, and as an outreach tool to show how personal decisions may change a person's or household's contribution to climate change. For additional information, see the OPR General Plan Guidelines.²⁵³

Project-Level Greenhouse Gas Emissions Reduction Actions and Thresholds

Beyond plan-level goals and actions, local governments can also support climate action when considering discretionary approvals and entitlements of individual projects through CEQA. Absent conformity with an adequate geographically-specific GHG reduction plan as described in the preceding section above, CARB recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development. There are recent examples of land use development projects in California that have demonstrated that it is feasible to design projects that achieve zero net additional GHG emissions. Several projects have received certification from the Governor under AB 900, the Jobs and Economic Improvement through Environmental Leadership Act (Buchanan, Chapter 354, Statutes of 2011), demonstrating an ability to design economically viable projects that create jobs while contributing no net additional GHG emissions.²⁵⁴ Another example is the Newhall

²⁵⁰ CEQA Guidelines, § 15183.5, sub. (b).

²⁵¹ Center for Biological Diversity v. California Dept. of Fish and Wildlife (2015) 62 Cal.4th 204, 229–230.

²⁵² Id. at pp. 223–224.

²⁵³ <http://opr.ca.gov/planning/general-plan/>.

²⁵⁴ Governor's Office of Planning and Research. California Jobs. <http://www.opr.ca.gov/ceqa/california-jobs.html>

Ranch Resource Management and Development Plan and Spineflower Conservation Plan,²⁵⁵ in which the applicant, Newhall Land and Farming Company, proposed a commitment to achieve net zero GHG emissions for a very large-scale residential and commercial specific planned development in Santa Clarita Valley.

Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA. Lead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with this Scoping Plan, the State's long-term GHG goals, and climate change science.²⁵⁶

To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally. For example, on-site design features to be considered at the planning stage include land use and community design options that reduce VMT, promote transit oriented development, promote street design policies that prioritize transit, biking, and walking, and increase low carbon mobility choices, including improved access to viable and affordable public transportation, and active transportation opportunities. Regionally, additional GHG reductions can be achieved through direct investment in local building retrofit programs that can pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project. These investments generate real demand side benefits and local jobs, while creating the market signals for energy efficient products, some of which are produced in California. Other examples of local direct investments include financing installation of regional electric vehicle (EV) charging stations, paying for electrification of public school buses, and investing in local urban forests.

Local direct investments in actions to reduce GHG emissions should be supported by quantification methodologies that show the reductions are real, verifiable, quantifiable, permanent, and enforceable. Where further project design or regional investments are infeasible or not proven to be effective, it may be appropriate and feasible to mitigate project emissions through purchasing and retiring carbon credits. CAPCOA has developed the GHG Reduction Exchange (GHG Rx) for CEQA mitigation, which could provide credits to achieve additional reductions. It may also be appropriate to utilize credits issued by a recognized and reputable voluntary carbon registry. Appendix B includes examples of on-site project design features, mitigation measures, and direct regional investments that may be feasible to minimize GHG emissions from land use development projects.

California's future climate strategy will require increased focus on integrated land use planning to support livable, transit-connected communities, and conservation of agricultural and other lands. Accommodating population and economic growth through travel- and energy-efficient land use provides GHG-efficient growth, reducing GHGs from both transportation and building energy use.²⁵⁷ GHGs can be further reduced at the project level through implementing energy-efficient construction and travel demand management approaches.²⁵⁸ Further, the State's understanding of transportation impacts continues to evolve. The CEQA Guidelines are being updated to focus the analysis of transportation impacts on VMT. OPR's Technical Advisory includes methods of analysis of transportation impacts, approaches to setting significance thresholds, and includes examples of VMT mitigation under CEQA.²⁵⁹

255 <https://nrm.dfg.ca.gov/documents/ContextDocs.aspx?cat=NewhallRanchFinal>

256 CARB provided some guidance on development project thresholds in a paper issued in October 2008, which included a concept utilizing a bright-line mass numeric threshold based on capturing approximately 90 percent of emissions in that sector and a concept of minimum performance based standards. Some districts built upon that work to develop thresholds. For example, Santa Barbara County adopted a bright-line numeric threshold of 1,000 MTCO₂e/yr for industrial stationary-source projects, and Sacramento Metropolitan Air Quality Management District adopted a 10,000 MTCO₂e/yr threshold for stationary source projects and a 1,100 MTCO₂e/yr threshold for construction activities and land development projects in their operational phase. CARB is not endorsing any one of these approaches, but noting them for informational purposes.

257 Robert Cervero, Jim Murakami; Effects of Built Environment on Vehicle Miles Traveled: Evidence from 370 US Urbanized Areas. *Environment and Planning A*, Vol 42, Issue 2, pp. 400-418, February-01-2010; Ewing, R., & Rong, F. (2008). The impact of urban form on U.S. residential energy use. *Housing Policy Debate*, 19 (1), 1-30.

258 CAPCOA, *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures*, August, 2010.

259 <http://www.opr.ca.gov/ceqa/updates/sb-743/>

Implementing the Scoping Plan

This Scoping Plan outlines the regulations, programs, and other mechanisms needed to reduce GHG emissions in California. CARB and other State agencies will work closely with State and local agencies, stakeholders, Tribes, and the public to develop regulatory measures and other programs to implement the Scoping Plan. CARB and other State agencies will develop regulations in accordance with established rulemaking guidelines. Per Executive Order B-30-15, as these regulatory measures and other programs are developed, building programs for climate resiliency must also be a consideration. Additionally, agencies will further collaborate and work to provide the institutional support needed to overcome barriers that may currently hinder certain efforts to reduce GHG emissions and to support the goals, actions, and measures identified for key sectors in Chapter 4. Table 17 provides a high-level summary of the Climate Change Policies and Measures discussed in the Scoping Plan, including, but not limited to, those identified specifically to achieve the 2030 target.

TABLE 17: CLIMATE CHANGE POLICIES AND MEASURES

Recommended Action	Lead Agency
Implement SB 350 by 2030: <ul style="list-style-type: none"> • Increase the Renewables Portfolio Standard to 50 percent of retail sales by 2030 and ensure grid reliability. • Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030. • Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in IRPs to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly-owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs. 	CPUC, CEC, CARB
Implement Mobile Source Strategy (Cleaner Technology and Fuels): <ul style="list-style-type: none"> • At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025. • At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030. • Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Cars regulations. • Medium- and heavy-duty GHG Phase 2. • Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_x standard. • Last Mile Delivery: New regulation that would result in the use of low NO_x or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3-7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030. • Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion." 	CARB, CalSTA, SGC, CalTrans CEC, OPR, Local agencies
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB
By 2019, adjust performance measures used to select and design transportation facilities. <ul style="list-style-type: none"> • Harmonize project performance with emissions reductions, and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.). 	CalSTA and SGC, OPR, CARB, GoBiz, IBank, DOF, CTC, Caltrans
By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR/SGC, CARB

Recommended Action	Lead Agency
Implement California Sustainable Freight Action Plan: <ul style="list-style-type: none"> Improve freight system efficiency. Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030. 	CalSTA, CalEPA, CNRA, CARB, CalTrans, CEC, GoBiz
Adopt a Low Carbon Fuel Standard with a CI reduction of 18 percent.	CARB
Implement the Short-Lived Climate Pollutant Strategy by 2030: <ul style="list-style-type: none"> 40 percent reduction in methane and hydrofluorocarbon emissions below 2013 levels. 50 percent reduction in black carbon emissions below 2013 levels. 	CARB, CalRecycle, CDFR, SWRCB, Local air districts
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	CARB, CalRecycle, CDFR, SWRCB, Local air districts
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink: <ul style="list-style-type: none"> Protect land from conversion through conservation easements and other incentives. Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments Establish scenario projections to serve as the foundation for the Implementation Plan 	CNRA and departments within, CDFR, CalEPA, CARB
Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018	CARB
Implement Forest Carbon Plan	CNRA, CAL FIRE, CalEPA and departments within
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies

A Comprehensive Approach to Support Climate Action

Ultimately, successfully tipping the scales in the fight against climate change relies on our ability to incentivize clean technologies in the marketplace and to make other climate strategies clearly understood and easily accessible. We must support and guide our businesses as they continue to innovate and make clean technologies ever more attractive to ever more savvy consumers. Until the point that clean technologies become the best and lowest cost option—which is clearly on the horizon for many technologies, including renewable energy and electric cars—we must continue to support emerging markets through incentives and outreach efforts. More than just coordinating among agencies and providing institutional support as described above, we will succeed if we tackle climate change from all angles—through regulatory and policy development, targeted incentives, and education and outreach.

Regulations and Programmatic Development

Our decade of climate leadership has demonstrated that developing mitigation strategies through a public process, where all stakeholders have a voice, leads to effective actions that address climate change and yield a series of additional economic and environmental co-benefits to the State. As we implement this Scoping Plan, State agencies will continue to develop and implement new and existing programs, as described herein. During any rulemaking process, there are many opportunities for both informal interaction with technical staff in meetings and workshops, and formal interaction at Board meetings, Commission business meetings, monthly public meetings, and others. Each State agency will consider all information and stakeholder input during the rulemaking process. Based on this information, the agency may modify proposed measures to reflect the status of technological development, the cost of the measure, the cost-effectiveness of the measures, and other factors before presenting them for consideration and adoption.

Further, to achieve cost-effective GHG reductions, California State agencies must consider the environmental impact of small businesses and provide mechanisms to assist businesses as GHG reduction measures are

implemented. CARB provides resources and tips for small businesses to prevent pollution, minimize waste, and save energy and water on CoolCalifornia.org. California's small businesses and their employees represent a valuable economic resource in the State and "greening" existing businesses is not only achievable, but sets an example for new businesses which will prove significant as California transitions to a low carbon state.

State agencies conduct environmental and environmental justice assessments of our regulatory actions. Many of the requirements in AB 32 overlap with traditional agency evaluations. In adopting regulations to implement the measures recommended in the Scoping Plan, or including in the regulations the use of market-based compliance mechanisms to comply with the regulations, agencies will ensure that the measures have undergone the aforementioned screenings and meet the requirements established in California Health and Safety Code Section 38562(b)(1-9) and Section 38570(b)(1-3).

Incentive Programs

Financial incentives and direct funding are critical components of the State's climate framework. In particular, incentives and funding are necessary to support GHG emissions reductions strategies for priority sectors, sources, and technologies. Although California has a number of existing incentive programs, available funding is limited. It is critical to target public investments efficiently and in ways that encourage integrated, system wide solutions to produce deep and lasting public benefits. Significant investments of private capital, supported by targeted, priority investments of public funding, are necessary to scale deployment and to maximize benefits. Public investments, including through decisions related to State pension fund portfolios, can help incentivize early action to accelerate market transition to cleaner technologies and cleaner practices, which can also be supported by regulatory measures.

Many existing State funding programs work in tandem to reduce emissions from GHGs, criteria pollutants, and toxic air contaminants, and are helping to foster the transition to a clean energy economy and protect and manage land for carbon sequestration. State law, including Senate Bill 535 (De León, Chapter 830, Statutes of 2012) and Assembly Bill 1550 (Gomez, Chapter 369, Statutes of 2016) also requires focused investment in low income and disadvantaged communities.

The State will need to continue to coordinate and utilize funding sources, such as the Greenhouse Gas Reduction Fund (cap-and-trade auction proceeds), the Alternative and Renewable Fuel and Vehicle Technology Program (AB 118), Electric Program Investment Charge (EPIC) Program, Carl Moyer Program, Air Quality Improvement Program, and Proposition 39 to expand clean energy investments in California and further reduce GHG and criteria emissions. Additionally, programs including the Bioenergy Feed-In Tariff, created by Senate Bill 1122 (Rubio, Chapter 612, Statutes of 2012), Low Carbon Fuel Standard, Cap-and-Trade, Self-Generation Incentive Program, Federal Renewable Fuel Standard, utility incentives pursuant to Assembly Bill 1900 (Gatto, Chapter 602, Statutes of 2012), and others provide important market signals and potential revenue streams to support projects to reduce GHG emissions.

These programs represent just a portion of the opportunities that exist at the federal, State, and local levels to incentivize GHG emissions reductions. The availability of dedicated and long-lasting funding sources is critical to help meet the State's climate objectives and help provide certainty and additional partnership opportunities at the national, State, Tribal, regional, and local levels for further investing in projects that have the potential to expand investments in California's clean economy and further reductions in GHG emissions.

Public Education and Outreach Efforts

California State agencies are committed to meaningful opportunities for public input and effective engagement with stakeholders and the public through the development of the Scoping Plan, and as measures are implemented through workshops, other meetings, and through the formal rulemaking process. Additionally, the State has broad public education and outreach campaigns to support markets for key technologies, like ZEVs and energy efficiency, as well as resources to support local and voluntary actions, such as CoolCalifornia.org.

In developing this Scoping Plan, there has been extensive outreach with environmental justice organizations and disadvantaged communities. The EJAC launched a community engagement process starting in July 2016, conducting 19 community meetings throughout the State and collecting hundreds of individual comments. To enhance the engagement opportunity, CARB coordinated with local government agencies and sister State agencies to hold collaborative discussions with local residents about specific climate issues that impact their

lives. This effort was well received and attended by local community residents and initiated a new community engagement endeavor for CARB. Recognizing the value of the input received and the opportunity to present California's climate strategy to communities across the State, CARB intends to continue this community involvement to generate awareness about California's climate strategy and be responsive to specific community needs as climate programs are implemented.



EDUCATION AND ENVIRONMENT INITIATIVE

The California Environmental Protection Agency (CalEPA), the California Department of Education, and the California Natural Resources Agency have developed an environmental curriculum that is being taught in more than half of California's school districts. The [Education and Environment Initiative](#) (EEI) provides California's teachers with tools to educate students about the natural environment and how everyday choices can improve our planet and save money.

Conclusion

This Scoping Plan continues more than a half-century of California's nation-leading efforts to clean our air, our water and improve the environment. But, climate change poses a challenge of unprecedented proportions that will, in one way or another, impact all Californians whether they are city dwellers in Los Angeles, San Diego or San Francisco, farmers in Salinas or the Central Valley, or the millions of Californians who live in the Sierra or in the desert areas.

This is the State's climate action plan, and in a very real sense it belongs to all those Californians who are feeling, and will continue to feel, the impacts of climate change. Californians want to see continued effective action that addresses climate change and benefits California – this Plan responds to both of these goals. The Plan was developed by the coordinated consensus of State agencies, but it is really California's Plan, because over the coming decades the approaches in this document will be carried out by all of us.

In this Scoping Plan, every sector in our thriving economy plays a crucial role. Tribes, cities, and local governments are already rising to the challenge, and will play increasingly important roles with everything from low-carbon and cleaner transit, to more walkable streets and the development of vibrant urban communities.

We will see a remarkable transformation of how we move throughout the state, away from cars that burn fossil fuels to cleaner, electric cars that will, in some cases, even drive themselves. Freight will be moved around the state by trucks that are vastly cleaner than those on the road now, with our ports moving towards zero- and near-zero emissions technologies. The heavily traveled Los Angeles-San Francisco corridor will be serviced by comfortable, clean and affordable high speed rail.

In addition to reducing GHGs, these efforts will slash pollution now created from using gasoline and diesel fuel statewide, with the greatest benefits going to the disadvantaged communities of our state which are so often located adjacent to ports, railyards, freight distribution centers and freeways. And, thanks to the continued investment of proceeds from the Cap-and-Trade Program in these same communities, we can continue to work on bringing the benefits of clean technology – whether electric cars or solar roofs – to those in our state who need them the most.

Climate change presents us with unprecedented challenges – challenges that cannot be met with traditional ways of thinking or conventional solutions. As Governor Brown has recognized, meeting these challenges will require "courage, creativity and boldness." The last ten years proved to ourselves, and the world, that Californians recognize the danger of climate change. It has also demonstrated that developing mitigation strategies through a public process where all stakeholders have a voice leads to effective actions that address climate change while yielding a series of co-benefits to the state. This Scoping Plan builds on those early steps and moves into a new chapter that will deliver a thriving economy and a clean environment to our children and grandchildren. It is a commitment to the future, but it begins today by moving forward with the policies in this Plan.

ABBREVIATIONS

AB	Assembly Bill
AC	air conditioning
AEO	Annual Energy Outlook
AHSC	Affordable Housing and Sustainable Communities
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
BARCT	best available retrofit control technology
BAU	business-as-usual
BC	British Columbia
BEV	Battery-electric vehicle
CARB	California Air Resources Board
CAISO	California Independent System Operator
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards
CalPERS	California Public Employees' Retirement System
CalSTA	California State Transportation Agency
CalSTRS	California State Teachers' Retirement System
CAP	Climate Action Plan
CARE	California Alternate Rates for Energy Program
CDFA	California Department of Food and Agriculture
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFT	Clean Fuels and Technology
CH ₄	Methane
CI	carbon intensity
CNRA	California Natural Resources Agency
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
COPD	chronic obstructive pulmonary disease
CPUC	California Public Utilities Commission
CSI	California Solar Initiative
dge	diesel gallon equivalent
DWR	California Department of Water Resources
EA	Environmental Analysis
EEI	Education and Environment Initiative
EIR	Environmental Impact Report
EJAC	Environmental Justice Advisory Committee

EO	Executive Order
EPIC	Electric Program Investment Charge Program
F-gases	fluorinated gases
FCEV	Fuel-cell electric vehicle
FERA	Family Electric Rate Assistance
GCF	Governors' Climate and Forests Task Force
GDP	gross domestic product
GGRF	Greenhouse Gas Reduction Fund
GHG	greenhouse gas
GoBiz	Governor's Office of Business and Economic Development
GWP	global warming potential
HCD	California Department of Housing and Community Development
HFC	Hydrofluorocarbon
HVAC	heating, ventilation and air conditioning
ICAP	International Carbon Action Partnership
IEPR	Integrated Energy Policy Report
IOU	investor-owned utility
IPCC	United Nations Intergovernmental Panel on Climate Change
IRP	integrated resource plan
IWG	Interagency Working Group on the Social Cost of Greenhouse Gases
LCFS	Low Carbon Fuel Standard
LCTOP	Low Carbon Transit Operations Program
LDV	light-duty vehicle
LED	light-emitting diode
LIWP	Low-Income Weatherization Program
LOS	level of service
MMTCO _{2e}	million metric tons of carbon dioxide equivalent
MOU	memorandum of understanding
MPO	metropolitan planning organization
MRR	Regulation for the Mandatory Reporting of GHG Emissions
MTCO ₂	metric tons of carbon dioxide
MW	Megawatt
N ₂ O	nitrous oxide
NAICS	North American Industry Classification System
NEM	Net-Energy Metering
NF ₃	nitrogen trifluoride
NO _x	nitrogen oxide
NZE	near-zero emission
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research

PEV	plug-in electric vehicle
PHEV	Plug-in hybrid electric vehicle
PFC	Perfluorocarbon
PM	particulate matter
PM_{2.5}	fine particulate matter
PMR	Partnership for Market Readiness
REMI	Regional Economic Models, Inc.
RES-BCT	Renewable Energy Bill Credit
RNG	renewable natural gas
RPS	renewable portfolio standard
RTP	regional transportation plan
SB	Senate bill
SCS	Sustainable Communities Strategies
SC-CO₂	social cost of carbon
SF₆	sulfur hexafluoride
SGC	Strategic Growth Council
SGIP	Self-Generation Incentive Program
SLCP	Short-lived climate pollutant
SWRCB	State Water Resources Control Board
TBD	to be determined
TCU	Transportation Communications and Utilities
TIRCP	Transit and Intercity Rail Capital Program
UCLA	University of California, Los Angeles
UHI	urban heat island
UIC	International Union of Railways
UNFCCC	United Nations Framework Convention on Climate Change
USDA	U.S. Department of Agriculture
U.S. EPA	United States Environmental Protection Agency
VMT	vehicle miles traveled
WWTP	waste water treatment plant
ZE	zero emission
ZEV	zero emission vehicles

California's 2030 Vision

CAP-AND-TRADE

Firm limit on 80% of emissions



CLEAN ENERGY

At least 50% renewable electricity

Double energy efficiency in existing buildings

CLEAN FUELS

18% carbon intensity reduction

High density, transit-oriented housing

NATURAL & WORKING LANDS RESTORATION
15-20 million metric tons of reductions

Walkable & bikable communities

On-road oil demand reduced by half

CLEAN TRANSIT
100% of new buses are zero-emission

REDUCE "SUPER POLLUTANTS"
40% reduction in methane and HFCs

CLEAN CARS
Over 4 million affordable electric cars on the road

SUSTAINABLE FREIGHT
Transitioning to zero emissions everywhere feasible, and near-zero emissions with renewable fuels everywhere else

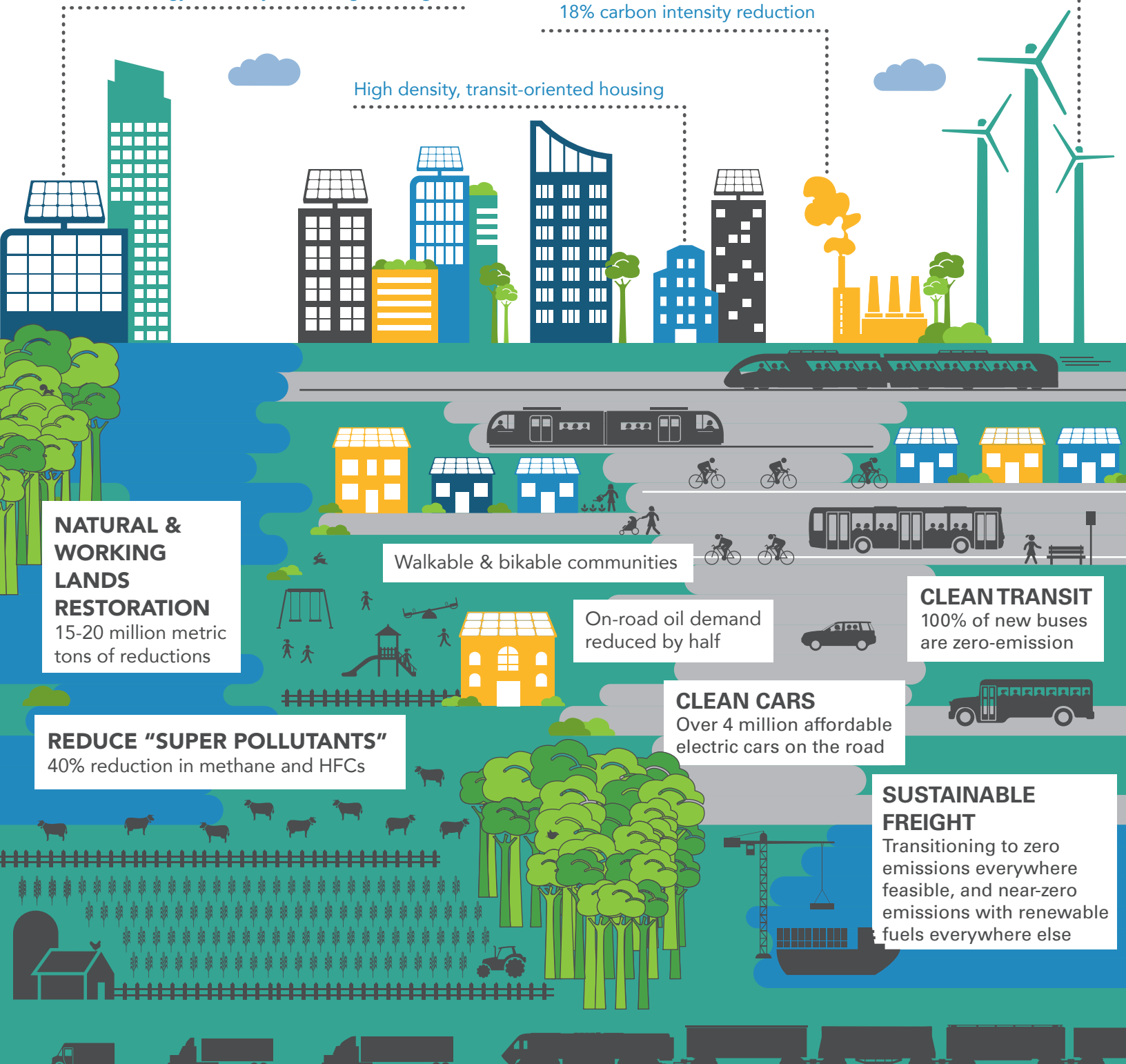


EXHIBIT F

City of Escondido

DRAFT GENERAL PLAN



Housing



DRAFT

August 2011

File No. PHG 09-0020

City of Escondido
Community Development Department
201 North Broadway
Escondido, CA 92025

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I. Introduction

The Housing Element is a component of the General Plan which assesses the housing needs of all economic segments of the City of Escondido. In addition, the Housing Element defines the goals and policies that will guide the City's approach to resolving those needs and recommends a set of programs that would implement policies over the next few years.

State law requires that all cities adopt a Housing Element and describe in detail the necessary contents of the housing element. This Housing Element responds to those requirements, and responds to the special characteristics of the City's housing environment. This Housing Element incorporates the most current data and information readily available at the time of writing. It also includes an evaluation of the Housing Element adopted in 2005, an assessment of the current and potential housing actions, and an assessment of resources of the private sector and all levels of the public sector.

This Escondido Housing Element is prepared for the 2013-2020 update cycle for jurisdictions in the San Diego Association of Governments (SANDAG) region.

A. Role of the Housing Element

The Housing Element is concerned with specifically identifying ways in which the housing needs of existing and future resident residents can be met. This Housing Element covers the planning period of January 1, 2013 through December 31, 2020, and identifies strategies and programs that focus on:

- Conserving and improving existing affordable housing;
- Providing adequate housing sites;
- Assisting in the development of affordable housing;
- Removing governmental and other constraints to housing development; and
- Promoting equal housing opportunities.

The City of Escondido envisions itself becoming the vibrant and dynamic cultural, economic, and recreational hub of inland North San Diego County. This vision calls for an outstanding quality of life with exemplary public services and a safe environment that support a wide-range of housing types; quality educational facilities; desirable workplaces offering diverse employment opportunities; convenient transportation options, and unique cultural/recreational amenities. A lively, active downtown with unique and exciting land uses and a revitalized surrounding urban core are the focus for appropriate higher-intensity infill developments that maximize opportunities for alternative transportation, and strengthen pedestrian linkages. Planning for quality, managed growth ensures the adequate provision of infrastructure, preserves perimeter viewsheds, respects and enhances the character of established single-family neighborhoods, and assures long-term sustainability for Escondido's future. This Housing Element provides policies and programs that will allow the City to achieve this vision. The 2013-2020 Escondido Housing Element consists of the following major components:

- **Introduction:** An overview of the purpose and contents of the Housing Element.
- **Housing Needs Assessment:** An analysis of the demographic and housing characteristics and trends.
- **Housing Constraints:** A review of potential market, governmental, and environmental constraints to meeting the identified housing needs.
- **Housing Resources:** An evaluation of resources available to address housing goals.
- **Review of Past Accomplishments:** An evaluation of accomplishments under the adopted Housing Element.
- **Housing Plan:** A strategy to address the identified housing needs given the City's constraints and resources.

B. Community Context

Escondido is located in the North Central portion of San Diego County. Its natural setting, Mediterranean climate, rolling hills, and location at the intersection of two state highways provide a unique and attractive living environment. This setting has a substantial impact on the employment characteristics as well as the City's economic base. These conditions attract growth which in turn creates a competitive residential atmosphere.

The City has three general areas of development: the historic town center area; the more recently developed surrounding areas; and the developing rural areas. Each of these areas contains housing sub-markets which reflect their own unique attributes.

Escondido has experienced significant residential development since 1970. It is crucial that public services expand to meet the needs of the increasing population. These services include sewers, streets, police, fire, schools, and recreation. It is also important to locate housing to be accessible to other functions such as employment, services, shopping, and transportation.

In 2010, the City population was 143,911, an increase of about eight percent in the last ten years. During this same period, the housing stock increased by approximately seven percent. The growth in population has, in turn, increased diversity within the City. From 2000 to 2010, Escondido became more racially and ethnically diverse. White residents (40 percent) no longer comprise the largest racial/ethnic group in the community, while the City's Hispanic residents make up nearly one-half (49 percent) of the City's residents

The 2010 Census reported an increase in average household size from 3.01 persons per household in 2000 to 3.12 persons in 2010. This trend can be partially attributed to the swell of families with children and the shift in racial and ethnic composition, since many Asian and Hispanic households are typically larger than White households.

Escondido offers a mix of housing types. Single-family homes make up about 58 percent of the housing stock, the multi-family share is about 35 percent, and mobile homes comprise the remaining eight percent. Less than one-third (28 percent) of Escondido's housing stock is over 30 years old (built before 1980), with approximately 12.6 percent of the housing stock being built before 1959.

The median price of a single-family home in Escondido is estimated at about \$245,000, as of 2010. Apartment rents range from \$925 for a one-bedroom apartment to \$1,312 for a three-bedroom apartment. Lower income households in the City are unable to afford homeownership; however, affordable rental options for lower income households in Escondido do exist. The City has been actively addressing its housing issues by developing affordable housing, improving the existing housing, and providing assistance to households in need.

C. Public Participation

Public participation by all economic segments is critical to the preparation of the Housing Element. Furthermore, the City values community input in policy development. Outreach efforts conducted by the City were intended to reach all segments of the community, with efforts to solicit input from lower and moderate income households and persons with special housing needs. The City sent out news releases and public notices prior to public meetings, including a news release in Spanish. General Plan update web pages have been added to the City's website, with the ability of allowing residents and interested parties to register for email notifications.

1. General Plan Survey

The City of Escondido solicited community feedback as part of the General Plan Update process. In addition to Community Workshops held in April 2009, an anonymous survey was prepared to aid the visioning phase. The survey was made available on-line, at the Planning Division counter in City Hall, and at both City Libraries. The survey asked residents the following eight questions:

- What do you consider to be Escondido's most important assets that should be preserved?
- What do you think represent the most significant challenges for Escondido's future?
- What do you think are the most important things that could be added to enhance Escondido's quality of life?
- Where should new housing be concentrated in Escondido?
- What about Escondido would you change?
- What about Escondido are you most proud?
- What specific types of industries and jobs should we attract to Escondido?
- How can we enhance the sense of community in Escondido?

Because of the open-ended nature of the questions, survey responses varied significantly but the following sentiments were echoed by a large number of residents:

- The downtown corridor is one of the City’s most important assets and should be enhanced and protected.
- The downtown area and transit centers would be a great place for new quality, multi-family housing; however, housing should not be concentrated in any one part of the City.
- The City should focus on “smart growth” and mixed use, especially in the downtown area.

The City responded to these comments by focusing future residential growth in the downtown area, and in mixed use and transit-oriented developments.

2. Public Workshops

The City held a series of Community Workshops in April 2009 to determine residents’ long-term vision for the City. A meeting was held on April 16, 2009 at the East Valley Community Center. A number of residents attended the meeting and provided input on what direction the new General Plan should take. Most comments involved the need to focus on smart growth, the rehabilitation of existing older housing, and the need to maintain the character of the City’s existing single-family neighborhoods.

The City also solicited public input at a Neighborhood Leadership Forum on April 23, 2009 at City Hall. A majority of the comments during this public forum concerned economic development and utilities. Specifically, residents discussed the idea of using Oceanside’s Mercado as a model for the City’s Mercado Escondido and brought up questions and concerns about the City’s sewer capacity for additional growth.

On April 29, 2009, the City held a second public workshop on the General Plan. Residents that attended this meeting reiterated the need to focus on “smart growth” principles and the rehabilitation of older neighborhoods in the City. In addition, the Community Alliance for Escondido (CAFÉ) held a public forum on January 29, 2010 to discuss issues related to the General Plan. Residents who attended this meeting commented on the need for urban-style “smart growth” projects and the importance of public transit. The General Plan (including the Housing Element) focuses on higher density development along transportation corridors.

3. Study Sessions

Study sessions were conducted before the Planning Commission (July 26, 2011) and City Council (August 10) to review the Draft Housing Element prior to submitting the Housing Element for review by the State Department of Housing and Community Development (HCD). The meetings were advertised in *North County Times* and *San Diego Union Tribune*, as well as the City’s website, and special invitations were sent out to a number of agencies serving low and moderate income households and persons with special needs. Agencies invited to the Study Sessions are listed in Appendix A. One comment letter was received. This letter is also included in Appendix A.

4. Public Review of Draft Housing Element

The Draft Escondido Housing Element was available for public review at the following locations:

- City Hall
- City Library
- City website

5. Public Hearings

Public hearings will be conducted before the Planning Commission and City Council prior to adoption of the Housing Element.

D. Data Sources and Methodology

In preparing the Housing Element, various sources of information are consulted. The 2000 Census provides the basis for population and household characteristics. Although dated, no better source of information on demographics is widely accepted. Unfortunately, the 2010 Census data are not scheduled to be released in time for the preparation of this Housing Element. As of the writing of this Housing Element (June 2011), only limited 2010 Census data have been released. Therefore, several sources are used to provide reliable updates to the 2000 Census, including the following:

- 2005-09 American Community Survey by the Census Bureau¹
- 2010 Census by the Census Bureau
- Population and demographic data updated by the State Department of Finance
- Housing market information, such as home sales and rents, from Dataquick and Realtytrack, among other sources
- Lending patterns from the Home Mortgage Disclosure Act (HMDA) database
- Labor statistics from California Employment Development Department

E. General Plan Consistency

According to State planning law, the Housing Element must be consistent with the other General Plan elements. While each of the elements is independent, the elements are also interrelated to a degree. Certain goals and policies of each element may also address issues that are primary subjects of other elements. This integration of issues throughout the General Plan creates a strong basis for the implementation of plans and programs and achievement of community goals. The Housing Element is most closely tied to the Land Use Element as residential development capacities established in the Land Use Element are incorporated into the Housing Element.

¹ The American Community Survey (ACS) is conducted on a very sample of the population. As such, the data tend to have large margins of errors, especially for the more detailed levels of questions and small geographic units. Therefore, this Housing Element may not present all ACS data available when the margins are errors appear to be unreasonable.

This 2013-2020 Housing Element was prepared as part of the comprehensive update to the City's General Plan and builds upon other General Plan elements. This Housing Element is entirely consistent with the policies and proposals set forth by the updated General Plan. When an element in the General Plan is amended, the Housing Element will be reviewed and modified if necessary to ensure continued consistency among the various elements. Specifically, new State law requires that the Safety and Conservation Elements include an analysis and policies regarding flood hazard and management information upon revisions to the Housing Element. The City will ensure that updates to these Elements achieve internal consistency with the Housing Element.

II. Housing Needs Assessment

The City strives to achieve a balanced housing stock that meets the varied needs of all income segments of the community. To understand the City's housing needs, the nature of the existing housing stock and the housing market are comprehensively evaluated. This section of the Housing Element discusses the major components of housing needs in Escondido, including population, household, economic and housing stock characteristics. Each of these components is presented in a regional context, and, where relevant, in the context of other nearby communities. This assessment serves as the basis for identifying the appropriate goals, policies, and programs for the City to implement during the 2013-2020 Housing Element cycle.

A. Population Characteristics

Understanding the characteristics of a population is vital in the process of planning for the future needs of a community. Population characteristics affect the type and amount of housing need in a community. Issues such as population growth, race/ethnicity, age, and employment trends are factors that combine to influence the type of housing needed and the ability to afford housing. The following section describes and analyzes the various population characteristics and trends that affect housing need.

1. Population Growth

According to the Census, the City population in 2010 was 143,911, increased from 108,635 in 1990 and 133,559 in 2000. Between 2000 and 2010, the City population increased by approximately 10,000 people, representing an increase of approximately eight percent. During the same period, San Diego County population increased by 10 percent. The City population, as a proportion of the County population, decreased slightly from five percent in 2000 to 4.6 percent in 2010.

Table 1: Population Growth - Escondido and San Diego County (1990-2010)

	1990	2000	2010	1990-2000	2000-2010
Escondido	108,635	133,559	143,911	22.9%	7.8%
San Diego County	2,498,016	2,813,833	3,095,313	12.6%	10.0%
Escondido as a % of the County	4.3%	5.0%	4.6%	16.3%	-7.0%

Sources: Bureau of the Census, 1990, 2000, and 2010 Censuses.

2. Age Characteristics

A community's current and future housing needs are determined in part by the age characteristics of residents. Typically, each age group has distinct lifestyles, family types and sizes, ability to earn incomes, and therefore, housing preferences. As people move through each stage of life, housing needs and preferences change. Traditional assumptions are that the young adult population (20 to 34 years old) tends to favor apartments, low to moderate cost townhomes/condominiums, and smaller single-family units. The adult population (35 to 64 years old) represents the major market for moderate to relatively high cost condominiums and single-family homes. The senior population (65 years and older) tends to generate demand for

low to moderate cost apartments and condominiums, group quarters, and mobile homes. In order to create a balanced community, it is important to provide housing options that suit the needs of various age groups.

In 2000 (Table 2), 33 percent of residents in the City were under the age of 20 years, 23 percent were young adults between 20 and 34 years, 33 percent were mature adults between 35 and 64 years, and 11 percent were elderly persons over 65 years of age.

According to the 2010 Census, the age distribution of Escondido residents was as follows: 31 percent of residents in the City were under the age of 20 years, 23 percent were between 20 and 34 years, 36 percent were between 35 and 64 years, and 11 percent were over 65 years of age. Overall, the City’s population is aging, with the median age increasing from 31.2 to 31.5 between the two censuses.

Table 2: Age Distribution (2000-2010)

Age	2000		2010	
	Total	% of Total	Total	% of Total
Under 5 years	11,712	8.8%	11,638	8.1%
5-9 years	12,106	9.1%	10,795	7.5%
10-14 years	10,153	7.6%	10,686	7.4%
15-19 years	9,546	7.1%	10,976	7.6%
20-24 years	10,019	7.5%	11,138	7.7%
25-29 years	10,448	7.8%	11,436	7.9%
30-34 years	10,754	8.1%	10,167	7.1%
35-39 years	10,897	8.2%	9,759	6.8%
40-44 years	9,790	7.3%	9,681	6.7%
45-49 years	8,082	6.1%	9,617	6.7%
50-54 years	6,642	5.0%	9,190	6.4%
55-59 years	4,835	3.6%	7,725	5.4%
60-64 years	3,845	2.9%	6,019	4.2%
65-69 years	3,331	2.5%	4,237	2.9%
70-74 years	3,228	2.4%	3,162	2.2%
75+ years	8,161	6.1%	7,685	5.3%
Total	133,559	100.0%	143,911	100.0%
Median Age	31.2		32.5	

Source: Bureau of the Census, 2000 and 2010 Censuses.

3. Race/Ethnicity Characteristics

Race/ethnicity of the population is important to an analysis of housing needs and conditions for several reasons. The cultural influences of races are often reflective of preferences for housing type, location of housing, associated services, and household composition. For example, the concept of “extended family” can have implications on the definitions of overcrowding and housing conditions. The racial and ethnic composition of a community’s population should also be more carefully examined at the neighborhood level.

Escondido, like many communities throughout California, has experienced gradual changes in the racial and ethnic composition of its population. According to the 2010 Census, White residents (40 percent) no longer comprise the largest racial/ethnic group in the community. The City’s Hispanic residents make up nearly one-half (49 percent) of the City’s residents (Table 3).

Table 3: Race and Hispanic Origin (2010)

	Number	Percent
Non-Hispanic Races		
White	58,142	40.4%
Black or African American	3,046	2.1%
American Indian	577	0.4%
Asian	8,491	5.9%
Native Hawaiian and Other Pacific Islander	306	0.2%
Some other race	201	0.1%
Two or more races	2,822	2.0%
Hispanic	70,326	48.9%
Total	143,911	100.0%

Source: Bureau of the Census, 2010 Census.

4. Economic Characteristics

Employment has an important impact on housing needs. Incomes associated with different jobs and the number of workers in a household determines the type and size of housing a household can afford. In some cases, the types of jobs themselves can affect housing needs and demand (such as in communities with military installations, college campuses, and large amounts of seasonal agriculture). Employment growth typically leads to strong housing demand, while the reverse is true when employment contracts. In addition, the relationship between the location of housing and the location of employment has an impact upon transportation systems. Escondido is north of the major employment centers in San Diego County and, to a lesser extent, east of other areas in northern San Diego County.

The City has developed a number of economic programs and incentives to attract higher-tech businesses with higher-paying jobs. Thus, an increase in higher-end housing is essential; not only to attract higher-tech businesses and jobs but also to accommodate the housing needs of higher-income households.

Employment

Table 4 highlights the difference in employment composition in Escondido versus the region. The far right-hand column shows that employment in retail services is higher in Escondido while employment in the military is higher in the region.

The decline in the proportion of jobs in manufacturing is not new and has been progressing for more than half a century nationwide. During the 1990s and continuing after 2000, the region's economy continued to diversify away from manufacturing and defense-related industries. Manufacturing's share of total non-farm employment fell from 12.8 percent in 1990 to 10.3 percent in 2000 and 9.2 percent during 2005-2009, following a similar trend for the state and the nation. Currently, the San Diego region has a smaller share of its employment in manufacturing than California and the nation. The rise in service sector jobs is not new either. It is what has been happening while the number of jobs in the manufacturing sector has declined as a share of total employment. Regionally, among service sectors, professional and business services increased its share from 12.8 percent of total employment in 1990 to 13.3 percent in 2000, to 14.2 percent during 2005-2009.

Over the past several decades, the San Diego region has been adding proportionally more jobs at the low end of the pay scale than jobs at the high end of the pay scale. This "unbalanced" job growth trend is affecting the standard of living in the region. Employment growth has been unbalanced since about 1985, with the region adding proportionally fewer jobs in sectors with relatively high wages and proportionally more jobs in sectors with low wages.

The earnings gap between low- and high-paying jobs has also widened because of unbalanced job growth and the region's capacity for low-paying jobs has increased through public investment. Public funds and facilities have been used to invest heavily in low value-added industries, such as tourism, entertainment, the uniformed military, and retail trade, without compensating investments for high value-added industries. Public funds have been used to help construct infrastructure that support these low-paying jobs, including Mission Bay, Balboa Park, the San Diego Zoo, the Wild Animal Park, Sea World, Legoland, the Convention Center, and cruise ship terminals. Uniformed military infrastructure includes shipyards, submarine bases, air bases, and training facilities. At times, public funds are used to pay for infrastructure requirements in retail centers, auto malls, and sports facilities. The aggregate investment in these areas has diversified the economic base, helped provide sufficient job growth to keep the region's unemployment rate one of the lowest in the nation, but the investment has also contributed to the unbalanced job growth. Compared to the region, Escondido has even higher proportion of lower paying jobs in the retail/sales and manufacturing sectors, as shown in Table 4.

Table 4: Employment Characteristics - City of Escondido and Region (2000-2009)

Industry	2000 Census		2005-2009 ACS	
	% of City Employment	% of Region Employment	% of City Employment	% of Region Employment
Agriculture, Mining	1.9%	0.7%	1.5%	0.7%
Construction	9.4%	6.6%	11.4%	7.5%
Manufacturing	14.6%	11.0%	10.8%	9.2%
Transportation, Communication, Utilities	3.4%	3.5%	4.5%	6.2%
Wholesale Trade	3.6%	3.3%	2.9%	2.9%
Retail Trade	12.8%	11.3%	12.5%	10.9%
Finance, Insurance and Real Estate	5.6%	7.1%	5.8%	7.8%
Professional Services	13.0%	13.3%	13.2%	14.2%
Education, health, and social services	15.2%	19.3%	16.0%	19.5%
Arts, entertainment, and recreation	8.7%	9.6%	11.7%	10.5%
Other Services	5.9%	5.2%	6.9%	5.1%
Public Administration	3.2%	5.4%	2.8%	5.3%
Total	100.0%	100.0%	100.0%	100.0%

Sources: Bureau of the Census, 2000 Census and 2005-2009 American Community Survey (ACS).

Table 5 displays mean annual wage data for occupations compiled by the California Employment Development Department (EDD) for the San Diego Metropolitan Statistical Area. Table 5 shows that the food preparation and serving, personal care and service, building and maintenance, and farming, fishing and forestry occupations offer the lowest wages.

According to the Census and ACS, approximately 15 percent of Escondido residents work at educational, health and social services occupations. Education and social services usually generate employment at the moderate income levels. Other major employment sectors for Escondido include sales and manufacturing (production); both provide generally jobs at lower scales as shown in Table 5.

As of June 2011, unemployment rate in Escondido was reported by the State Employment Development Department at 10.8 percent, above the regional average of 10.4 percent but below the statewide average of 12.4 percent.

Table 5: Mean Salary By Occupation - San Diego Region (2010)

Occupations	Average Salary
Management	\$113,870
Legal	\$107,196
Healthcare Practitioners and Technical	\$86,425
Architecture and Engineering	\$81,433
Computer and Mathematical	\$79,899
Life, Physical and Social Science	\$72,840
Business and Financial Operations	\$70,103
Education, Training and Library	\$60,482
Arts, Design, Entertainment, Sports and Media	\$55,851
Construction and Extraction	\$50,274
Community and Social Service	\$48,969
Protective Service	\$47,927
Installation, Maintenance and Repair	\$45,364
Sales	\$37,650
Office and Administrative Support	\$36,264
Production	\$33,600
Transportation and Material Moving	\$31,976
Healthcare Support	\$30,481
Farming, Fishing and Forestry	\$27,777
Building, Grounds Cleaning, and Maintenance	\$26,359
Personal Care and Service	\$26,030
Food Preparation and Serving Related	\$22,211
All Occupations	\$49,439

Source: California Employment Development Division, Occupational Wage data, 2010.

B. Household Characteristics

The Census defines a "household" as all persons who occupy a housing unit, which may include single persons living alone, families related through marriage or blood, or unrelated persons sharing living quarters. Persons living in retirement or convalescent homes, dormitories, or other group living situations are not considered households. Furthermore, the Census classifies households by type according to the gender of the householder and the presence of relatives. Household characteristics such as size, type, income and tenure reveal important information about the housing needs of a community. Different household sizes, types and income levels often prefer different housing options.

According to the 2010 Census, there were 1,086,865 households (also known as occupied housing units) in San Diego County. Of these, 45,484 households, or approximately four percent, were located in Escondido.

1. Household Type and Size

Different household types generally have different housing needs. Seniors or young adults usually comprise the majority of the single-person households and tend to reside in apartments, condominiums or smaller single-family homes. Families with children often prefer single-family homes.

In 1990, the City had 39,267 households. By 2000, this number grew to 43,817, an increase of 12 percent. By 2010, the number of households in Escondido increased another four percent to 45,484 households. Table 6 shows that, increasingly, Escondido households are mostly consisted of families. However, the greatest change between 2000 and 2010 was the increase in other families. Married couples with children experienced numerical and proportional decreases.

According to the 2010 Census, 72 percent of the Escondido households were family-households. Of the City's family households, 36 percent were married couples with children under the age of 18 and 36 percent did not include children. The proportion of other families continued to grow, representing 28 percent of all family-households. About 28 percent of Escondido households were non-family households with the majority of them (75 percent) being residents living alone. By 2010, the average household size in the City increased to 3.12 and the average family size increased to 3.57.

Table 6: Changes in Household Types (2000 – 2010)

Household Types	2000		2010		Change 2000-2010	
	#	%	#	%	#	%
Families	31,162	71.1%	32,732	72.0%	1,570	5.0%
Married with Children	12,505	40.1%	11,812	36.1%	(693)	(5.5%)
Married without Children	11,121	35.7%	11,723	35.8%	602	5.4%
Other Families	7,536	24.2%	9,197	28.1%	1,661	22.0%
Non-Families	12,655	28.9%	12,752	28.0%	97	0.8%
Single	9,801	77.4%	9,528	74.7%	(273)	(2.8%)
Other Non-Families	2,854	22.6%	3,224	25.3%	370	13.0%
Total Households	43,817	100.0%	45,484	100.0%	1,667	3.8%
Average Household Size	3.01		3.12		3.7%	
Average Family Size	3.50		3.57		2.0%	

Sources: Bureau of the Census, 2000 and 2010 Censuses.

Like age distribution, household size is an important market characteristic. Housing demand is shaped by the composition of its household sizes. The small household (one to two persons per household) traditionally prefers units with zero to two bedrooms, while the large household (five or more persons per household) prefers units with at least three bedrooms. Information on Table 7 shows that two-person households (28 percent) made up the largest proportion of households in the City in 2010. Approximately 21 percent of Escondido households included five or more persons.

Table 7: Household Size (2010)

Number of Persons	Owner-Households	Percent	Renter-Households	Percent	Total Households	Percent
One	4,297	18.1%	5,231	24.1%	9,528	20.9%
Two	7,946	33.4%	4,571	21.0%	12,517	27.5%
Three	3,914	16.5%	3,284	15.1%	7,198	15.8%
Four	3,608	15.2%	3,223	14.8%	6,831	15.0%
Five	1,980	8.3%	2,414	11.1%	4,394	9.7%
Six	932	3.9%	1,381	6.4%	2,313	5.1%
Seven or more	1,082	4.6%	1,621	7.0%	2,703	5.9%
Total	23,759	100.0%	21,725	100.0%	45,484	100.0%

Source: Bureau of the Census, 2010 Census.

2. Household Income

Household income indicates the wealth of a community and therefore is directly connected to the ability to afford housing. Income levels influence the range of housing prices within a region and the ability of the population to afford housing. As household income increases, the more likely that household is to be a homeowner. As household income decreases, households tend to pay a disproportionate amount of their income for housing and the number of persons occupying unsound and overcrowded housing increases.

For planning and funding purposes, the California State Department of Housing and Community Development (HCD) has developed the following income categories based on the Area Median Income (AMI) of a metropolitan area (such as San Diego County):

- Extremely Low Income: households earning up to 30 percent of the AMI
- Very Low Income: households earning between 31 and 50 percent of the AMI
- Low Income: households earning between 51 percent and 80 percent of the AMI
- Moderate Income: households earning between 81 percent and 120 percent of the AMI
- Above Moderate Income: households earning over 120 percent of the AMI

Combined, the extremely low, very low, and low income groups are referred to as lower income. Federal programs provide assistance primarily to households in the lower Income category (up to 80 percent AMI).

In 2000, approximately 55 percent of Escondido households earned moderate or above moderate incomes (Table 8), while 45 percent of households had incomes in the extremely low, very low, and low income levels.²

² Data was obtained from the Comprehensive Housing Affordability Strategy (CHAS) prepared for HUD by the Census Bureau using 2000 Census data. CHAS data does not provide a breakdown of household income for those with more than 80 percent AMI as those households are not qualified for federal housing programs.

Table 8: Households by Income Category (2000)

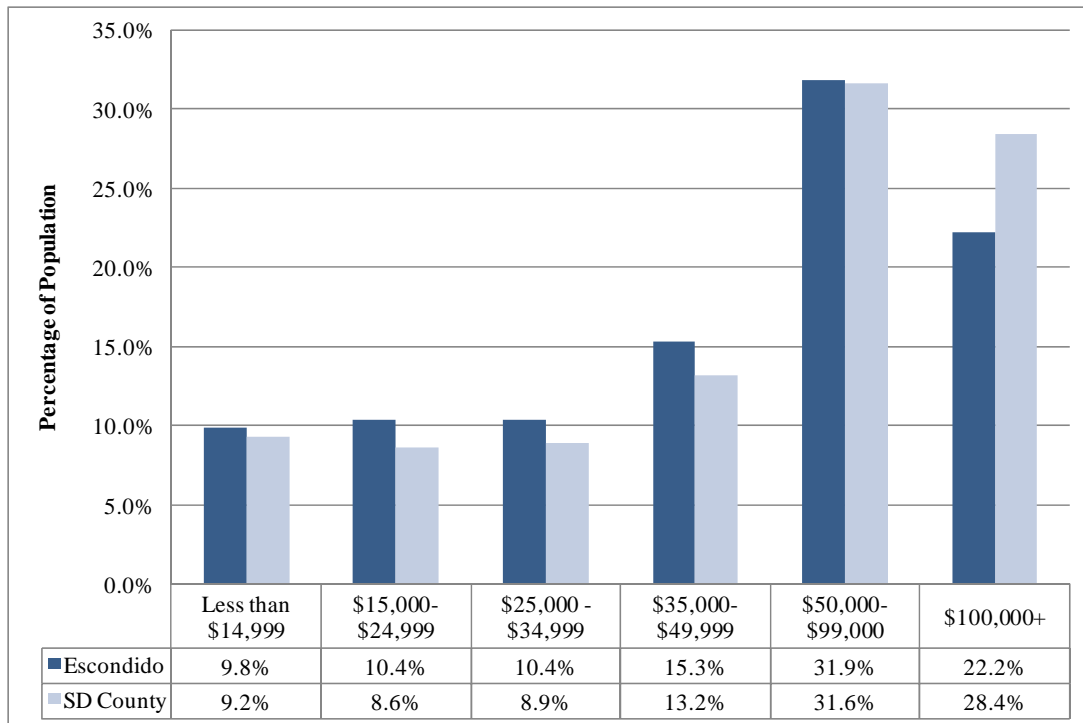
Income Category (% of County AMI)	Households	Percent
Extremely Low (30% or less)	4,736	10.8%
Very Low (31 to 50%)	6,003	13.7%
Low (51 to 80%)	8,859	20.3%
Moderate or Above (over 80%)	24,149	55.2%
Total	43,747	100.0%

Source: Department of Housing and Urban Development (HUD) Comprehensive Housing Affordability Strategy (CHAS), 2004.

Household incomes in Escondido tend to be slightly lower than those in the region as a whole. Median household income in the City was \$42,567 in 2000, compared to the San Diego County median household income of \$47,067. The ACS estimates the median household income in Escondido between 2005 and 2009 was \$54,457, compared to \$62,901 in the County.

Figure 1 compares household income in Escondido and in the San Diego region between 2005 and 2009. Approximately 54 percent of Escondido households had incomes over \$49,999, six percentage points lower than region wide. Approximately 22 percent of Escondido households earned \$100,000 or more, compared to 28 percent in all of San Diego County. Slightly more than 30 percent of Escondido residents earned less than \$35,000 annually, compared to 27 percent region wide.

Figure 1: Household Income (2005-2009)



Source: Bureau of the Census, 2005-2009 American Community Survey.

Median household income compared to neighboring communities provides a way to measure income in Escondido against other cities. Table 9 compares median income in Escondido to other North County cities and the region. Median household income in the City was one of the lowest in the region, comparable to the City of Vista.

Table 9: Median Household Income – San Diego Region (2005-2009)

Jurisdiction	Median HH Income*	Percent Above/Below Regional Median
Carlsbad	\$85,146	+35%
Encinitas	\$85,538	+36%
Escondido	\$54,457	-13%
Oceanside	\$62,657	+0%
Poway	\$95,488	+52%
San Marcos	\$64,244	+2%
Vista	\$54,017	-14%
San Diego Region	\$62,901	+0%

Source: Bureau of the Census, 2005-2009 American Community Survey.

Median household income provides only partial insight into a community’s income profile. A more detailed breakdown of households by income category can provide more information about the proportion of households in Escondido whose limited incomes may lead them to have a higher incidence of housing problems such as overpayment (paying more than 30 percent of income on housing) or overcrowding (having more than one person per room).

Household incomes improved from 1990 to 2000 (Table 10). The percentage of wage earners with annual incomes over \$50,000 increased, while the percentage of those earning less than \$50,000 decreased. Since 2000, however, while the proportion of households earning over \$100,000 increased, so were the proportions of households earning below \$15,000, indicating an increase in the number of households earning extremely low incomes.

Table 10: Income Distribution (1990-2009)

Household Income	Income Distribution			Change in Percentage Points	
	1990	2000	2005-2009	1990-2000	2000-2009
Less than \$10,000	10.2%	3.8%	4.7%	-6.4%	+0.9%
\$10,000 - \$14,999	8.4%	5.0%	5.2%	-3.4%	+0.2%
\$15,000 - \$24,999	18.5%	11.8%	10.4%	-6.7%	-1.4%
\$25,000 - \$34,999	15.7%	14.3%	10.4%	-1.4%	-3.9%
\$35,000 - \$49,999	19.6%	16.5%	15.3%	-3.1%	-1.2%
\$50,000 - \$74,999	17.4%	22.2%	19.7%	+4.8%	-2.5%
\$75,000 - \$99,999	6.2%	12.3%	12.1%	+6.1%	-0.2%
\$100,000 or more	4.1%	14.1%	22.2%	+10.0%	+8.1%
Total	100.0%	100.0%	100.0%	---	---

Source: Bureau of the Census, 1990 and 2000 Censuses, and 2005-2009 American Community Survey.

C. Housing Problems

The Comprehensive Housing Affordability Strategy (CHAS) developed by the Census for HUD provides detailed information on housing needs by income level for different types of households in Escondido. Detailed CHAS data based on the 2000 Census is displayed in Table 11. Housing problems considered by CHAS include:

- Units with physical defects (lacking complete kitchen or bathroom);
- Overcrowded conditions (housing units with more than one person per room);
- Housing cost burden, including utilities, exceeding 30 percent of gross income; or
- Severe housing cost burden, including utilities, exceeding 50 percent of gross income.

The types of problems vary according to household income, type, and tenure. Some highlights include:

- In general, renter-households had a higher level of housing problems (62 percent) compared to owner-households (35 percent).
- Large renter-families had the highest level of housing problems regardless of income level (86 percent).
- Extremely low income (86 percent) and very low income households (83 percent) had the highest incidence of housing problems.

Table 11: Housing Assistance Needs of Lower Income Households (2000)

Household by Type, Income, and Housing Problem	Renters				Owners			Total Households
	Elderly	Small Families	Large Families	Total Renters	Elderly	Large Families	Total Owners	
Extremely Low Income (0-30% AMI)	829	1,038	843	3,552	595	115	1,184	4,736
% with any housing problem	78.9%	90.8%	99.1%	87.8%	82.4%	87.0%	78.9%	85.6%
% with cost burden >30%	78.9%	87.6%	90.7%	84.8%	82.4%	73.9%	77.6%	83.0%
% with cost burden > 50%	64.5%	78.0%	70.0%	73.1%	47.9%	73.9%	54.9%	68.5%
Very Low Income (31-50% AMI)	973	1,600	985	4,298	859	258	1,705	6,003
% with any housing problem	87.2%	93.8%	94.4%	91.6%	43.0%	98.4%	62.8%	83.4%
% with cost burden >30%	85.1%	83.4%	65.0%	80.3%	42.5%	88.8%	60.0%	74.6%
% with cost burden >50%	52.9%	27.8%	10.7%	31.5%	15.7%	54.3%	32.8%	31.9%
Low Income (51-80% AMI)	793	1,985	1,240	5,077	1,649	674	3,782	8,859
% with any housing problem	76.7%	58.7%	90.3%	70.7%	23.9%	86.1%	52.3%	62.8%
% with cost burden >30%	74.9%	39.3%	16.9%	43.2%	23.3%	60.8%	45.7%	44.3%
% with cost burden > 50%	25.9%	1.5%	0.8%	5.3%	9.0%	17.1%	17.0%	10.3%
Total Households	3,389	7,838	4,458	20,406	6,563	3,627	23,341	43,747
% with any housing problem	69.5%	52.2%	85.7%	61.5%	25.6%	59.7%	34.8%	47.3%

Note: Data presented in this table are based on special tabulations from sample Census data. The number of households in each category usually deviates slightly from the 100% total due to the need to extrapolate sample data out to total households. Interpretations of these data should focus on the proportion of households in need of assistance rather than on precise numbers.

Source: HUD Comprehensive Housing Affordability Strategy (CHAS), 2004.

1. Overcrowding

Overcrowding is typically defined as a housing unit occupied by more than one person per room. A severely overcrowded household is defined as one with more than 1.5 persons per room. Under State law a housing unit is considered overcrowded if there is less than 120 square feet of livable space (all space except the bath, kitchen and hallways) for the first two people and less than an additional 50 square feet for each additional person. Overcrowding can indicate that a community does not have an adequate supply of affordable housing, especially for large families.

Overcrowding typically occurs when there are not enough adequately sized units within a community, when high housing costs relative to income force too many individuals to share a housing unit than it can adequately accommodate, or when families reside in smaller units than they need to devote income to other necessities, such as food and health care. Overcrowding tends to accelerate the deterioration of housing. Therefore, maintaining a reasonable level of occupancy and alleviating overcrowding are critical to enhancing quality of life.

Table 12 shows that nearly 20 percent of the households in Escondido were overcrowded in 1990, inclusive of the 12 percent that were severely overcrowded. Overcrowding was more prevalent among renter-households than owner-households, as rental units are typically smaller in size and renter-households typically have lower incomes. The situation with overcrowding worsened significantly between 1990 and 2000, with almost one-third of the City’s households being overcrowded. Specifically, almost one-quarter of the households were severely overcrowded. The prevalence of overcrowding among owner-households more than doubled between 1990 and 2000.

Table 12: Overcrowded Housing Units (1990-2000)

Overcrowding	Owner Households		Renter Households		Total Households	
	Number	% of Owners	Number	% of Renters	Number	% of Total
1990						
Total Overcrowded (>1.0 persons/room)	786	3.9%	3,227	17.1%	4,013	19.7%
Severely Overcrowded (>1.5 persons/room)	324	1.6%	1,975	10.5%	2,299	12.2%
2000						
Total Overcrowded (>1.0 persons/room)	1,921	8.2%	5,637	24.2%	7,558	32.4%
Severely Overcrowded (>1.5 persons/room)	954	4.7%	3,621	17.7%	4,575	22.4%

Source: Bureau of the Census, 1990 and 2000 Censuses.

2. Cost Burden (Overpayment)

Measuring the portion of a household’s gross income that is spent for housing is an indicator of the dynamics of demand and supply. This measurement is often expressed in terms of “over payers”: households paying an excessive amount of their income for housing, therefore decreasing the amount of disposable income available for other needs. This indicator is an important measurement of local housing market conditions as it reflects the affordability of

housing in the community. Federal and state agencies use overpayment indicators to determine the extent and level of funding and support that should be allocated to a community.

Table 13 shows that in 2000, 43 percent of households in the San Diego region were paying over 30 percent of their income towards housing costs. In Escondido, nearly 37 percent of all households were overpaying. Renters were more likely to overpay than owners; in Escondido 45 percent of renters overpaid, compared to 29 percent of owners. In comparison, Oceanside had the highest levels of overpayment and Poway had the lowest level of overpayment.

Table 13: Overpayment (2000)

	All Households			Renters			Owners		
	Total	Paying 30%+	% Paying 30%+	Total	Paying 30%+	% Paying 30%+	Total	Paying 30%+	% Paying 30%+
Carlsbad	31,481	11,239	35.7%	10,285	4,669	45.4%	21,196	21,196	31.0%
Encinitas	22,834	8,928	39.1%	8,172	3,898	47.7%	14,662	14,662	34.3%
Escondido	43,747	15,968	36.5%	20,406	9,183	45.0%	23,341	23,341	29.2%
Oceanside	56,370	24,859	44.1%	21,336	12,055	56.5%	35,034	35,034	36.6%
Poway	15,493	4,911	31.7%	3,438	1,372	39.9%	12,055	3,544	29.4%
San Marcos	18,179	6,508	35.8%	6,115	2,458	40.2%	12,064	4,319	35.8%
Vista	28,950	10,740	37.1%	13,347	5,939	44.5%	15,603	5,789	37.1%
San Diego Region	994,098	423,486	42.6%	442,646	232,832	52.6%	551,452	551,452	34.5%

Note: Households do not equal total presented in other tables because housing costs were not computed for all households.
 Source: HUD Comprehensive Housing Affordability Strategy (CHAS), 2004.

Table 14 provides more overpayment detail by income group for Escondido. Approximately 63 percent of lower income households were overpaying versus 15 percent of moderate and above moderate households.

The 2010 Census has no data on household income or housing costs. According to the ACS data, between 2005 and 2009, 45 percent of owner-occupied households in Escondido spent more than 30 percent of their household income on housing. By contrast, a higher percentage of renter-households (59 percent) overpaid for housing.

Table 14: Overpayment by Tenure and Income Level (2000)

Household Income Group	Total Renters	Total Owners	Total
Extremely Low (<=30% AMI)	3,552	1,184	4,736
Cost Burden >30%	3,012	919	3,931
%Cost Burden >30%	84.8%	77.6%	83.0%
Very Low (>30% to <=50% AMI)	4,298	1,705	6,003
Cost Burden >30%	3,451	1,023	4,478
%Cost Burden >30%	80.3%	60.0%	74.6%
Low (>50% to <=80% AMI)	5,077	3,782	8,859
Cost Burden >30%	2,193	1,728	3,925
%Cost Burden >30%	43.2%	45.7%	44.3%
Moderate & Above Moderate (>80% AMI)	7,479	16,670	24,149
Cost Burden >30%	524	3,134	3,671
%Cost Burden >30%	7.0%	18.8%	15.2%
Total	20,406	23,341	43,747
Cost Burden >30%	9,183	6,816	15,968
%Cost Burden >30%	45.0%	29.2%	36.5%

Note: Totals may not be exact due to rounding. Please note the Census Bureau uses a special rounding scheme for special tabulations such as these. Therefore, totals may not match other census datasets.

Source: HUD Comprehensive Housing Affordability Strategy (CHAS), 2004.

D. Special Needs Groups

Certain segments of the population may have more difficulty in finding decent, affordable housing due to their special needs. Special circumstances may be related to one’s employment and income, family characteristics, disability and household characteristics, among other factors. Consequently, certain residents in Escondido may experience higher incidences of housing cost burden, overcrowding, or other housing problems. The special needs groups analyzed include the elderly, people with disabilities, homeless people, single parents, large households, military personnel, farm workers, and students (Table 15). Many of these groups overlap, for example many farm workers are homeless, and many elderly people have a disability of some type. The majority of these special needs groups would be assisted by an increase in affordable housing, especially housing located near public transportation and services. Table 16 provides a list of services and facilities available to assist households/persons with special needs.

Table 15: Special Needs Groups in Escondido (2010)

Special Needs Group	# of People or Households	Number of Owners	% Owner	Number of Renters	% Renter	% of Total Households or Population
Households with Seniors	11,028	--	--	--	--	24.2%
Senior Headed Households	9,253	6,077	65.7%	3,176	34.3%	20.3%
Seniors Living Alone	4,235	2,133	50.4%	2,102	48.6%	9.3%
Persons with Disabilities ¹	23,896	--	--	--	--	54.5%
Large Households	9,410	3,994	42.4%	5,416	57.6%	20.7%
Single-Parent Households	5,007	--	--	--	--	11.1%
Female-Headed Households	13,081	5,475	41.9%	7,606	58.1%	28.8%
Female-Headed Households with children	3,360	--	--	--	--	7.4%
People Living in Poverty ¹	17,759	--	--	--	--	13.3%
Farmworkers ¹	1,069	--	--	--	--	0.8%
Homeless	741	--	--	--	--	0.6%

1. 2010 Census data not available; 2000 Census data presented.

Source: Bureau of the Census (2000 and 2010) and Regional Housing Task Force on the Homeless (2010).

Table 16: Inventory of Services for Special Needs Populations

Special Needs Services	Program	Details	Location
Emergency Shelters	Catholic Charities, La Posada de Guadalupe	50 beds for homeless men	Carlsbad
	Community Resource Center Libre!	36 beds for women with children, victims of domestic violence; motel vouchers	Encinitas
	Encinitas Social Services	General Population	Encinitas
	Brother Benno’s Foundation, Good Samaritan Shelter	12 beds for homeless men	Oceanside
	Brother Benno’s Foundation, House of Martha Ann Mary	6 beds for women with children, victims of domestic violence	Oceanside
	M.I.T.E. North County Detox	6 beds for adults, substance abuse treatment	Oceanside
	Women’s Resource Center	26 beds for women with children, victims of domestic violence	Oceanside
Permanent Supportive Housing	CHW – Marisol Apartments	21 beds for HIV/AIDS patients	Undisclosed
	CHW-Old Grove	4 beds for HIV/AIDS patients	Undisclosed
	CHW-Old Grove	40 beds for farm/day laborers	Undisclosed
	Fraternity House, Inc. – Michelle’s House	12 HIV/AIDS patients	Vista
	Las Casitas	14 units for drug and alcohol recovery	Escondido
	North County Solutions for Change – Solutions Family Center	40 homeless families with children	Vista
Transitional Housing/Shelters	Genesis/Interfaith Services	8 homeless families	Escondido
	MHS – Family Recovery Center	90 Women with children and substance abuse treatment	Oceanside
	Serenity Village	24 women with substance abuse	Escondido
	Tikkun House	6 homeless women	Escondido
	Women’s Resource Center, Transition House	61 Women with children	Oceanside
	Women’s Resource Center	26 Women with children, victims of domestic violence	Oceanside
	YMCA Oz North Coast	10 Homeless Youth	Oceanside
Services for the Homeless and At-Risk Families	North Coastal Mental Health	Homeless severely mentally ill	Regional
	North County Lifeline – Hotel Vouchers	General homeless	Oceanside
	North County Community Services Food Bank	Food distribution	San Marcos
	Interfaith Community Services (Winter Shelter)	100 General homeless	Escondido
	Interfaith Food Pantry	Food distribution	Escondido
	Salvation Army Adult Rehab Center	Drug/alcohol abuse	San Diego
	Second Chance	Drug/alcohol abuse	San Diego
	Stepping Stone	Drug/alcohol abuse	San Diego

Table 16: Inventory of Services for Special Needs Populations

Special Needs Services	Program	Details	Location
Veterans	Aster	10 beds (short-term recuperative)	Escondido
	Aster Apartments	28 beds	Escondido
	Fairweather Lodge	6 mentally ill veterans (permanent supportive housing)	Escondido
	Merle’s Place	44 beds (dormitory)	Escondido
	New Resolve	44 beds (homeless, veterans)	Escondido
	Raymond’s Refuge I & II	6 beds each for homeless seniors/ disabled (permanent supportive housing)	Escondido
Senior/Disabled Services	Access Center, Inc.	Independent living assistance	Vista
	Joslyn Center	Senior support	Escondido
	Serving Seniors-Senior Community Centers	Meals, health and wellness	Regional

Source: City of Escondido

The following sections provide a detailed discussion of the housing needs facing each particular group as well as programs and services available to address their housing needs.

1. Seniors

Many senior-headed households have special needs due to their relatively low incomes, disabilities or limitations, and dependency needs. Specifically, people aged 65 years and older often have four main concerns:

- *Housing*: Many seniors live alone and may have difficulty maintaining their homes.
- *Income*: People aged 65 and over are usually retired and living on a limited income.
- *Health care*: Seniors are more likely to have high health care costs.
- *Transportation*: Many of the elderly rely on public transportation; especially those with disabilities.

The limited income of many elderly persons often makes it difficult for them to find affordable housing. In the San Diego region, the elderly spend a higher percentage of their income for food, housing, medical care, and personal care than non-elderly families. Many elderly households need smaller “efficiency” units to make independent living possible and many single elderly persons need some form of housing assistance.

Table 17 shows that 15,084 persons were age 65 and over in Escondido in 2010. This accounted for about 11 percent of residents, comparable to the percentage found in the region as a whole. In comparison, most surrounding communities had higher proportions of seniors. Among the City’s senior population, 9,253 seniors were heads of households, representing about 20 percent of the City’s overall households. Specifically, 4,235 senior-headed households were seniors living alone.

Table 17: Persons Age 65 and Over

Jurisdiction	Total	Age 65+	Percent Age 65+
Carlsbad	105,328	14,798	14.0%
Encinitas	59,518	7,643	12.8%
Escondido	143,911	15,084	10.5%
Oceanside	167,086	21,501	12.9%
Poway	47,811	5,900	12.3%
San Marcos	83,781	8,527	10.2%
Vista	93,834	8,673	9.2%
San Diego Region	3,095,313	351,425	11.4%

Source: Bureau of the Census, 2010 Census.

Table 18 shows elderly households broken down by tenure and income level in 2000. A higher proportion of elderly renter-occupied households had housing problems (70 percent) than all renter-occupied households (62 percent). Housing problems are defined as overpayment (cost burden) greater than 30 percent of income and/or overcrowding and/or without complete kitchen or plumbing facilities. Additionally, 68 percent of elderly renter-occupied households were paying more than 30 percent of their income for housing compared with 45 percent of all renter-households. Elderly owner-occupied households, on the other hand, tend to be better off than all households as a group. About one-quarter (26 percent) had any housing problem compared with 35 percent of all owner-occupied households. Likewise, only one-quarter (25 percent) were paying more than 30 percent of their income towards housing versus 29 percent of all owner-occupied households. While most elderly owner-households no longer hold a mortgage, some elderly homeowners may not be able to afford the costs of maintenance and repairs.

Table 18: Elderly Households by Tenure and Income Level (2000)

Household by Type, Income and Housing Problem	Renters		Owners		Total Households
	Elderly Renters	Total Renters	Elderly Owners	Total Owners	
Household Income <=30% AMI	829	3,552	595	1,184	4,736
% with any housing problems	78.9%	87.8%	82.4%	78.9%	85.6%
% Cost Burden >30%	78.9%	84.8%	82.4%	77.6%	83.0%
% Cost Burden >50%	64.5%	73.1%	47.9%	54.9%	68.5%
Household Income >30 to <=50% AMI	973	4,298	859	1,705	6,003
% with any housing problems	87.2%	91.6%	43.0%	62.8%	83.4%
% Cost Burden >30%	85.1%	80.3%	42.5%	60.0%	74.6%
% Cost Burden >50%	52.9%	31.5%	15.7%	32.8%	31.9%
Household Income >50 to <=80% AMI	793	5,077	1,649	3,782	8,859
% with any housing problems	76.7%	70.7%	23.9%	52.3%	62.8%
% Cost Burden >30%	74.9%	43.2%	23.3%	45.7%	44.3%
% Cost Burden >50%	25.9%	5.3%	9.0%	17.0%	10.3%
Household Income >80% AMI	794	7,479	3,460	16,670	24,149
% with any housing problems	30.7%	25.6%	12.4%	24.9%	25.1%
% Cost Burden >30%	29.5%	7.0%	12.1%	18.8%	15.2%
% Cost Burden >50%	11.2%	1.4%	3.0%	2.5%	2.1%
Total Households	3,389	20,408	6,563	23,341	43,747
% with any housing problems	69.5%	61.5%	25.6%	34.8%	47.3%
% Cost Burden >30	68.2%	45.0%	25.3%	29.2%	36.5%
% Cost Burden >50	39.7%	21.2%	10.3%	9.7%	15.1%

Notes:

Any housing problems: cost burden greater than 30% of income and/or overcrowding and/or without complete kitchen or plumbing facilities.

Other housing problems: overcrowding (1.01 or more persons per room) and/or without complete kitchen or plumbing facilities.

Elderly households: 1 or 2 person household, either person 62 years old or older.

Source: HUD Comprehensive Housing Affordability Strategy (CHAS), 2004.

2. Persons with Disabilities

In Escondido and elsewhere, persons with disabilities have a wide range of different housing needs, which vary depending on the type and severity of the disability as well as personal preference and lifestyle. Physical, mental, and/or developmental disabilities may prevent a person from working, restrict one’s mobility, or make it difficult to care for oneself. “Barrier-free design” housing, accessibility modifications, proximity to services and transit, and group living opportunities represent some of the types of considerations and accommodations that are important in serving this group. Also, some residents suffer from disabilities that require living in a supportive or institutional setting.

The 2000 Census defines six types of disabilities: sensory, physical, mental, self-care, go-outside-home, and employment. The Census defines sensory and physical disabilities as “long-lasting conditions.” Mental, self-care, go-outside-home, and employment disabilities are defined

as conditions lasting six months or more that makes it difficult to perform certain activities. A more detailed description of each disability is provided below:

- *Sensory disability*: Refers to blindness, deafness, or severe vision or hearing impairment.
- *Physical disability*: Refers to a condition that substantially limits one or more basic physical activities, such as walking, climbing stairs, reaching, lifting, or carrying.
- *Mental disability*: Refers to a mental condition lasting more than six months that impairs learning, remembering, or concentrating.
- *Self-care disability*: Refers to a condition that restricts ability to dress, bathe, or get around inside the home.
- *Go-outside-home*: Refers to a condition that restricts ability to go outside the home alone to shop or visit a doctor’s office.
- *Employment disability*: Refers to a condition that restricts ability to work at a job or business.

According to the 2000 Census, approximately 20 percent of Escondido residents over five years of age had a disability. The Census tallies the number of disabilities by type for residents with one or more disabilities. Among the disabilities tallied, 11 percent were sensory disabilities, 23 percent were physical disabilities, 12 percent were mental disabilities, seven percent were self-care disabilities, 23 percent were disabilities that limited the ability to go outside the home, and 24 percent were employment disabilities (Table 19). Because a person can have multiple disabilities, the number of disabilities tallied is greater than the number of persons with disabilities.

Table 19: Disabilities Tallied by Age and Type

Disability Type	Age 5 to 15	Age 16 to 64	Age 65+	Total
Sensory Disability	357	1,508	2,666	4,531
Physical Disability	311	4,684	4,814	9,809
Mental Disability	666	2,569	2,040	5,275
Self-Care Disability	215	1,371	1,493	3,079
Go-Outside-Home Disability	--	6,352	3,309	9,661
Employment Disability	--	10,264	--	10,264
Total	1,549	26,748	14,322	42,619

Source: Bureau of the Census, 2000 Census.

Four factors – affordability, design, location, and discrimination – significantly limit the supply of housing available to households of persons with disabilities. The most obvious housing need for persons with disabilities is housing that is adapted to their needs. Most single-family homes are inaccessible to people with mobility and sensory limitations. Housing may not be adaptable to widened doorways and hallways, access ramps, larger bathrooms, lowered countertops, and other features necessary for accessibility. Location of housing is also an important factor for many persons with disabilities, as they often rely upon public transportation to travel to necessary services and shops. “Barrier free design” housing, accessibility modifications, proximity to services and transit, and group living opportunities are important in serving this

group. Incorporating barrier-free design in all new multi-family housing is especially important to provide the widest range of choices for the disabled.

Housing advocacy groups report that people with disabilities are often the victims of discrimination in the home buying market. People with disabilities, whether they work or receive disability income are often perceived to be a greater financial risk than persons without disabilities with identical income amounts. The 2000 Census reported that 15 percent of persons with disabilities in Escondido were living below the poverty level. It also estimated that 30 percent of people with disabilities between the ages of 16 and 64 years in the City were not employed.

A recent change in State law requires that the Housing Element discuss the housing needs of persons with developmental disabilities. As defined by federal law, “developmental disability” means a severe, chronic disability of an individual that:

- Is attributable to a mental or physical impairment or combination of mental and physical impairments;
- Is manifested before the individual attains age 22;
- Is likely to continue indefinitely;
- Results in substantial functional limitations in three or more of the following areas of major life activity: self-care; receptive and expressive language; learning; mobility; self-direction; capacity for independent living; or economic self-sufficiency;
- Reflects the individual’s need for a combination and sequence of special, interdisciplinary, or generic services, individualized supports, or other forms of assistance that are of lifelong or extended duration and are individually planned and coordinated.

The Census does not record developmental disabilities. According to the U.S. Administration on Developmental Disabilities, an accepted estimate of the percentage of the population that can be defined as developmentally disabled is 1.5 percent. This equates to 2,158 persons in the City of Escondido with developmental disabilities based on the 2010 Census population.

The San Diego Regional Center, which provides services for persons with developmental disabilities, publishes client statistics for its four area offices. The City of Escondido is served by the North County office in San Marcos. As of January 2011, the North County office serves 2,774 persons. Escondido’s population represents about 16 percent of the North County population. Therefore, it can be generally estimated that about 445 clients served by the North County area office of the Regional Center are Escondido residents.

Many developmentally disabled persons can live and work independently within a conventional housing environment. More severely disabled individuals require a group living environment where supervision is provided. The most severely affected individuals may require an institutional environment where medical attention and physical therapy are provided. Because developmental disabilities exist before adulthood, the first issue in supportive housing for the developmentally disabled is the transition from the person’s living situation as a child to an appropriate level of independence as an adult.

3. Large Households

Large households are defined as those consisting of five or more members. These households comprise a special need group because of the often limited supply of adequately sized and affordable housing units in a community. To save for other basic necessities such as food, clothing and medical care, it is common for lower income large households to reside in smaller units, which frequently results in overcrowding and can accelerate the deterioration of housing.

The City had 2,683 large households in 1990, comprising about seven percent of the City’s total households. The percentage more than doubled by the following decade. The 2000 Census data indicated that there were 8,111 households with five or more members, which equates to approximately 19 percent of the City’s households. By the 2010 Census, the number of large households increased to 9,410, almost 21 percent of all households in the City. Table 20 compares the number of large households in Escondido to that in the region as a whole. In 2010, 21 percent of households in Escondido consisted of five or more persons, compared to 14 percent region wide. Renter-households represented the majority (58 percent) of all large households.

Table 20: Large Households (2010)

Jurisdiction	Persons in Household			Total Households
	5	6	7+	
Escondido	4,394	2,313	2,703	9,410
Percent of Total	9.7%	5.1%	5.9%	20.7%
San Diego Region	80,185	36,149	32,447	148,781
Percent of Total	7.4%	3.3%	3.0%	13.7%

Source: Bureau of the Census, 2010 Census.

As shown in Table 21, a greater percentage of larger households had housing problems than all households (47 percent) in 2000. Housing problems can be defined as cost burden (overpayment) greater than 30 percent of income and/or overcrowding and/or without complete kitchen or plumbing facilities. Renter-occupied large households (as a group) tend to have more housing problems than owner-occupied large households. The majority of renter-occupied large households (86 percent) had one or more housing problems, while more than half of larger owner-occupied households (60 percent) had one or more housing problems.

Table 21: Large Households by Tenure and Income Level (2000)

Household by Type, Income, & Housing Problem	Renters		Owners		Total Households
	Large Related (5 or more members)	Total Renters	Large Related (5 or more members)	Total Owners	
Household Income <=30% AMI	843	3,552	115	1,184	4,736
% with any housing problems	99.1%	87.8%	87.0%	78.9%	85.6%
% Cost Burden >30%	90.7%	84.8%	73.9%	77.6%	83.0%
% Cost Burden >50%	70.0%	73.1%	73.9%	54.9%	68.5%
Household Income >30 to <=50% AMI	985	4,298	258	1,705	6,003
% with any housing problems	94.4%	91.6%	98.4%	62.8%	83.4%
% Cost Burden >30%	65.0%	80.3%	88.8%	60.0%	74.6%
% Cost Burden >50%	10.7%	31.5%	54.3%	32.8%	31.9%
Household Income >50 to <=80% AMI	1,240	5,077	674	3,782	8,859
% with any housing problems	90.3%	70.7%	86.1%	52.3%	62.8%
% Cost Burden >30%	16.9%	43.2%	60.8%	45.7%	44.3%
% Cost Burden >50%	0.8%	5.3%	17.1%	17.0%	10.3%
Household Income >80% AMI	1,390	7,479	2,580	16,670	24,149
% with any housing problems	67.3%	25.6%	47.7%	24.9%	25.1%
% Cost Burden >30%	1.4%	7.0%	18.2%	18.8%	15.2%
% Cost Burden >50%	0.0%	1.4%	2.7%	2.5%	2.1%
Total Households	4,458	20,406	3,627	23,341	43,747
% with any housing problems	85.7%	61.5%	59.7%	34.8%	47.3%
% Cost Burden >30%	36.7%	45.0%	32.9%	29.2%	36.5%
% Cost Burden >50%	15.8%	21.2%	11.3%	9.7%	15.1%

Note: Totals may not match other Census 2000 products due to rounding.

Any housing problems: cost burden greater than 30% of income and/or overcrowding and/or without complete kitchen or plumbing facilities.

Source: HUD Comprehensive Housing Affordability Strategy (CHAS), 2004.

4. Single-Parent Households

Single-parent families, particularly female-headed families with children, often require special consideration and assistance because of their greater need for affordable housing and accessible day care, health care, and other supportive services. Female-headed families with children are considered a vulnerable group because they must balance the needs of their children with work responsibilities, often while earning limited incomes.

Table 22 shows that in 2010, Escondido had 5,007 single-parent households (11 percent of all households). Of these, the majority (67 percent) were female-headed households. In comparison, less than nine percent of all County households were single-parent households, but 72 percent of these households were female-headed households

Table 22: Single-Parent Households (2010)

	Total HHs	Single-Parent HHs	Percent Total HHs	Female-Headed HHs with Children	Percent Single-Parent HHs
Escondido	45,484	5,007	11.0%	3,360	67.1%
San Diego Region	1,086,865	94,380	8.7%	68,123	72.2%

HHs = Households

Source: Bureau of the Census, 2010 Census.

5. Residents Living Below Poverty

Families, particularly female-headed families, are disproportionately affected by poverty. The 2010 Census does not contain information on economic characteristics. In 2000, 13 percent of the City’s total residents (17,759 persons) were living in poverty. Approximately 34 percent of female-headed households with children, however, had incomes below the poverty level. The 2005-2009 ACS reports that 14 percent of the City’s population and 29 percent of female-headed families were living below the poverty level.

6. Homeless

Throughout the country and the San Diego region, homelessness has become an increasingly important issue. Factors contributing to the rise in homelessness include a lack of housing affordable to low and moderate income persons, increases in the number of persons whose incomes fall below the poverty level, reductions in public subsidies to the poor, and the de-institutionalization of the mentally ill.

State law (Section 65583(1) (6)) mandates that municipalities address the special needs of homeless persons within their jurisdictional boundaries. “Homelessness” as defined by the U.S. Department of Housing and Urban Development (HUD), describes an individual (not imprisoned or otherwise detained) who:

- Lacks a fixed, regular, and adequate nighttime residence; and
- Has a primary nighttime residence that is:
- A supervised publicly or privately operated shelter designed to provide temporary living accommodations (including welfare hotels, congregate shelters, and transitional housing for the mentally ill);
- An institution that provides a temporary residence for individuals intended to be institutionalized; or
- A public or private place not designed for, or ordinarily used as, a regular sleeping accommodation for human beings.

This definition does not include persons living in substandard housing, (unless it has been officially condemned); persons living in overcrowded housing (for example, doubled up with others), persons being discharged from mental health facilities (unless the person was homeless

when entering and is considered to be homeless at discharge), or persons who may be at risk of homelessness (for example, living temporarily with family or friends.)

The Regional Task Force on the Homeless (RTFH) is San Diego County’s leading resource for information on issues of homelessness. Established in 1985, the Task Force promotes a regional approach as the best solution to ending homelessness in San Diego County. The Task Force is a public/private effort to build a base of understanding about the multiple causes and conditions of homelessness. According to the Task Force, the San Diego region’s homeless population can be divided into two general groups: (1) urban homeless, and (2) rural homeless, including farm workers and day laborers who primarily occupy the hillsides, canyons and fields of the northern regions of the county. It is important to recognize that homeless individuals may fall into more than one category (for example, a homeless individual may be a veteran and a substance abuser), making it difficult to accurately quantify and categorize the homeless.

Since the homeless population is very difficult to quantify, Census information on homeless populations is often unreliable, due to the difficulty of efficiently counting a population without permanent residences. The Task Force compiles data from a physical Point-In-Time (PIT) count of sheltered (emergency and transitional) and street homeless persons. The 2011 Count was conducted on January 28, 2011 and the results are shown in Table 23. Oceanside, Escondido, and Vista had the largest homeless populations of the North County cities. Escondido supports the Regional Winter Shelter program with CDBG funds. For FY 2011-12, approximately \$33,000 was allocated to the program.

Table 23: Homelessness in North County Cities (2011)

Jurisdiction	Sheltered	Unsheltered	Total
Carlsbad	62	21	83
Escondido	352	115	467
Encinitas	50	134	184
Oceanside	375	77	452
Poway	0	15	15
San Marcos	0	1	1
Vista	351	80	431
San Diego Region	4,981	4,039	9,020

Source: Regional Housing Task Force on the Homeless (2011).

7. Military Personnel

The military population’s influence on the demand for housing takes two forms: (a) the existing service households trying to find housing; and (b) the former (either retirement or non-retirement separations) service households trying to find housing. The San Diego region is home to a disproportionate share of the State’s and the nation’s military personnel. According to the 2005-2009 ACS, 52 percent of California’s 139,269 uniformed military personnel were stationed in the San Diego region, and six percent of the nation’s 1.1 million armed forces were located here.

The greatest concentration of military personnel to the overall labor force in the region is found in Coronado, home to Naval Air Station North Island. Almost one out of every two members of

Coronado's total labor force is in the military. Other areas with relatively high concentrations of military personnel are the City of National City and the unincorporated area. However, the City of San Diego has the largest number of people in the armed forces (28,952), accounting for about 40 percent of the region's enlisted military personnel. The existing military family housing is scattered across the region, and some communities, such as Escondido, have substantial portions of their housing stock occupied by military families.

8. Student Housing Need

Student housing is considered a factor that affects housing availability. Although students may produce only temporary housing need, the impact upon housing demand and post-study residence is critical in the immediate university areas. San Diego State University, the largest university in the region, has an enrollment of 30,000 students as of the fall of 2010, but only provides housing for 3,433 students on campus. The University of San Diego houses 2,550 students on campus for a student enrollment of 7,800. The University of California at San Diego provides on-campus housing for about 10,000 students for a student enrollment of 27,400. Other smaller universities and junior colleges in the County create similar housing problems. For example, the location of California State University San Marcos has had some impact on local housing, due to its location a few miles west of Escondido.

Typically, students are low income and are, therefore, impacted by a lack of affordable housing, especially within easy commuting distance from campus. They often seek shared housing situations to decrease expense, and can be assisted through roommate referral services offered on and off campus. The lack of affordable housing also influences choices students make after graduation which can have a detrimental effect on the region's economy. The recent graduates provide a specialized pool of skilled labor that is vital to the region; however, the lack of affordable housing often leads to their departure from the area.

9. Farm Workers

Farm workers are defined as those households whose wage earners make their living through seasonal agricultural work and who move with the seasons to different farming areas or communities. Permanent residents, who work in agriculture doing similar work, but who live in Escondido the entire year, are included in the City's estimates of households needing assistance due to affordability. However, the undocumented immigrant and migrant worker form a substantial part of the farm worker population. The ability to gather information about this segment of the farm worker population is limited because they are so mobile and reluctant to participate in any survey.

Due to the high cost of housing and low wages, a significant number of migrant farm workers have difficulty finding affordable, safe and sanitary housing. According to the State Employment Development Department, the average farm worker earned between \$19,000 and \$30,000 annually.³ This limited income is exacerbated by their tenuous and/or seasonal employment status.

³ State Employment Development Department, Occupational Employment (May 2009) and Wage Data (1st Quarter, 2010).

The housing needs of farm workers are difficult to quantify due to the fear of job loss and the fear of authority. Thus, farm workers are given low priority when addressing housing needs, and often receive the least hospitable housing. The San Diego County Regional Task Force on the Homeless estimates that there are at least 2,300 farm workers and migrant day laborers who currently experience homelessness in the San Diego region.

The 2000 Census provided a few indicators of the potential farm worker population. The 2000 Census revealed that approximately 1,052 individuals in Escondido were employed in the agriculture, forestry, and mining industries. More recent estimates for the number of farm workers, however, vary depending upon the different growing seasons. The numbers can change quickly as more work becomes available. This population remains highly migratory, following the work as it becomes available and even returning home for short periods during the off season. The number of encampments located throughout the County has become very difficult to estimate because encampments move frequently and are now much smaller than in the past. It is estimated that there are between 100 and 150 farm worker camps located throughout the San Diego region, primarily in rural areas. These encampments range in size from a few people to a few hundred and are frequently found in fields, hillsides, canyons, ravines, and riverbeds, often on the edge of their employer's property. Some workers reside in severely overcrowded dwellings, in packing buildings, or in storage sheds. Because camps tend to be in remote locations, this population is often under-counted. Most farm workers and day laborers have moved from living inside the local jurisdictions boundary lines to just outside them in the unincorporated areas.

The City of Escondido recognizes the needs of farm workers and allows housing to be partially provided through provisions in the Zoning Ordinance. The City is one of a few which allows, as a permitted use in agricultural and estate residential zones, living quarters for persons employed on the premises in conjunction with authorized agricultural uses.

The City completed the development of eight units for farm workers as part of a 24-unit affordable housing complex for low income households in 2001. The project is located at 1801–1821 South Escondido Boulevard and is called Eucalyptus View Cooperative Apartments. The development provides 23 units of affordable housing to families earning less than 50 percent of the area median income. The unit mix includes four one-bedroom units, 11 two-bedroom units and eight three-bedroom units. As a limited-equity cooperative, Eucalyptus View provides a form of homeownership. The initial share prices are equivalent to what is typically required for rent and security deposits for a rental unit. Long-term affordability is guaranteed and resale prices are limited to a percentage of annual increases in the equity investment.

E. Housing Stock Characteristics

A community's housing stock is defined as the collection of all housing units located within the jurisdiction. The characteristics of the housing stock, including growth, type, age and condition, tenure, vacancy rates, housing costs, and affordability are important in determining the housing needs for the community. This section details the housing stock characteristics of Escondido to identify how well the current housing stock meets the needs of current and future residents of the City.

1. Housing Growth

From 1980 to 1989, the City’s housing stock grew by 55 percent (14,552 units) and the population grew by 54 percent. After 1989, the figures changed dramatically. During the next 15 years (1989 to 2003), the housing stock only grew by 11 percent (5,077 units), while the population grew by 27 percent. In the late 80s and early 90s the City implemented several growth management policies that dramatically limited the number of units that could be built each year in order to ensure the provision of adequate facilities and services prior to development of future housing stock. The decrease in housing production also occurred as a result of the recession. While there were building permits available to be pulled for units in some of the large subdivisions, developers chose not to build due to the decline in the market.

The decrease in housing production between 1990 and 2000 was also countywide. While several jurisdictions experienced large increases in their housing stock, such as Carlsbad (24 percent) and Oceanside (17 percent), others jurisdictions, including Escondido, experienced only moderate increases, comparable to countywide average. Table 24 shows that between 2000 and 2010, Escondido’s housing stock increased at less than seven percent, below the countywide average and significantly below the nearby Carlsbad and San Marcos, where housing growth exceeded 32 percent and 52 percent, respectively.

Table 24: Housing Unit Growth (1990 and 2010)

Jurisdiction	1990	2000	2010	Percent Change	
				1990-2000	2000-2010
Carlsbad	27,235	33,812	44,673	24.1%	32.1%
Encinitas	22,123	23,829	25,740	7.7%	8.0%
Escondido	42,040	45,050	48,044	7.2%	6.6%
Oceanside	51,105	59,583	64,435	16.6%	8.1%
Poway	14,386	15,714	16,715	9.2%	6.4%
San Marcos	14,476	18,862	28,641	30.3%	51.8%
Vista	27,418	29,814	30,986	8.7%	3.9%
San Diego Region	946,240	1,040,149	1,164,786	9.9%	12.0%

Source: Bureau of the Census, 2000 and 2010 Censuses.

2. Projected Housing Units

Table 25 shows that between 2010 and 2020, Escondido is projected to gain five percent in housing stock. Region-wide, approximately eight percent more units will be added to the housing stock. Between 2010 and 2030, Escondido will experience an increase of ten percent in housing stock and approximately 18 percent more units will be added in the region. All of the North County coastal cities will have slower rates of housing growth compared to the region between 2010 and 2030.

Table 25: Projected Housing Units (2010-2030)

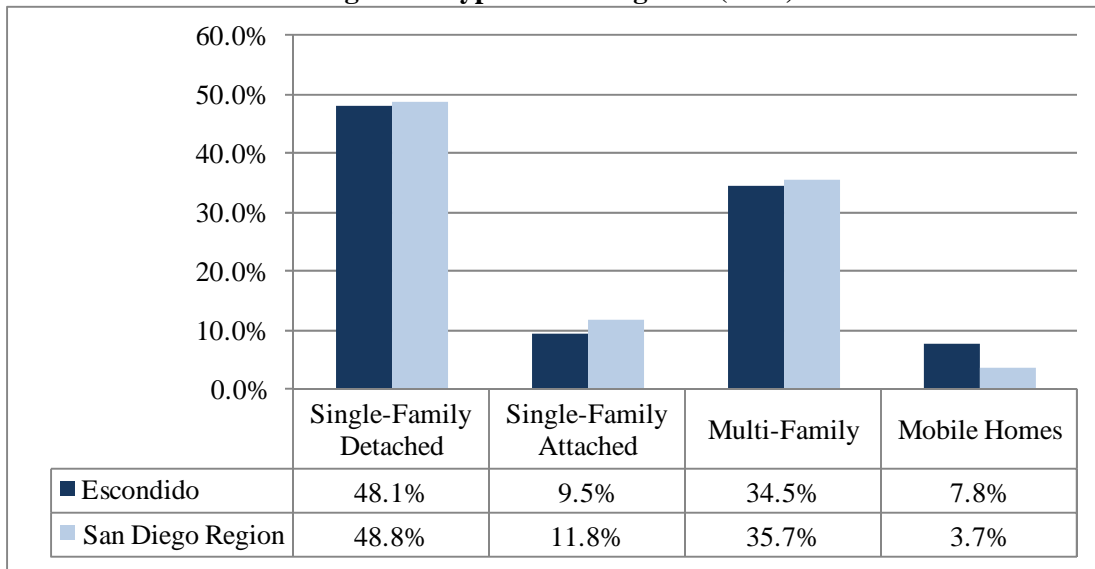
Jurisdiction	2010 (Actual)	2020	2030	Percent Change	
				2010-2020	2010-2030
Carlsbad	44,673	48,100	49,851	7.7%	11.6%
Encinitas	25,740	26,328	27,882	2.3%	8.3%
Escondido	48,044	50,287	52,778	4.7%	9.9%
Oceanside	64,435	69,565	73,425	8.0%	14.0%
Poway	16,715	17,231	18,221	3.1%	9.0%
San Marcos	28,641	30,068	33,095	5.0%	15.6%
Vista	30,986	31,602	32,508	2.0%	4.9%
San Diego Region	1,164,786	1,262,488	1,369,807	8.4%	17.6%

Source: Bureau of the Census, 2010 Census, and SANDAG Regionwide Forecast (2050).

3. Housing Type

Figure 2 shows that in 2010, the largest percentage (48 percent) of housing units in Escondido was single-family detached units. Approximately 10 percent were single-family attached units, 35 percent were multi-family developments, and eight percent were mobile homes/trailers.

Figure 2: Type of Housing Unit (2010)



Source: SANDAG Regionwide Forecast (2030).

Table 26 shows that the proportion of both single-family units and mobile homes in Escondido is projected to decrease slightly, while the proportion of multi-family units is expected to increase. However, this figure may be misleading because SANDAG forecasts mobile homes by determining the region’s mobile home growth rate and applying it to each jurisdiction.

Table 26: Projected Housing Unit by Type (2010-2030)

Housing Type	2010	% of Total	2020 (Projected)	% of Total	2030 (Projected)	% of Total
Single-Family	27,477	57.6%	28,423	56.5%	29,244	55.4%
Multi-Family	16,469	34.5%	18,246	36.3%	20,012	37.9%
Mobile Homes	3,736	7.8%	3,618	7.2%	3,522	6.7%
Total Housing	47,682	100.0%	50,287	100.0%	52,778	100.0%

Note: Housing type information is not available from the 2010 Census. This table presents 2010 estimates obtained from SANDAG and Department of Finance.
Source: SANDAG Regionwide Forecast (2050).

4. Housing Availability and Tenure

Housing tenure and vacancy rates are important indicators of the supply and cost of housing. Housing tenure refers to whether a unit is owned or rented. Tenure is an important market characteristic because it is directly related to housing types and turnover rates. The tenure distribution of a community’s housing stock can be an indicator of several aspects of the housing market, including the affordability of units, household stability and residential mobility among others. In most communities, tenure distribution generally correlates with household income, composition and age of the householder.

In 2000, among the City’s occupied housing units, approximately 53 percent were owner-occupied, while 47 percent were renter-occupied (Table 27). The homeownership rate for the City has remained relatively steady since 1990. According to the 2010 Census, the home ownership rate in Escondido decreased to 52 percent of the occupied units. Renter-occupied housing units made up almost 48 percent of the City’s occupied housing stock. Approximately five percent of total housing units were vacant.

Table 27: Tenure of Occupied Units (2000-2010)

Tenure	2000		2010	
	Number	Percent	Number	Percent
Owner Occupied	23,308	53.2%	23,759	52.2%
Renter Occupied	20,509	46.8%	21,725	47.8%
Total	43,817	100.0%	45,484	100.0%

Source: Bureau of the Census, 2000 and 2010 Censuses.

As shown in Table 28, renter-occupied households had a slightly higher average household size than owners. Approximately 58 percent of households with five or more persons were renter-households. In 2000, average renter-household size was 3.10 persons compared to 2.93 persons per for the average owner-household. In 2010, average renter-household size increased to 3.26 persons compared to 2.99 persons per for the average owner-household, widening the discrepancy in average household size based on tenure.

Table 28: Household Size by Tenure (2010)

	1-4 persons		5+ Persons		Total	
	Number	Percent	Number	Percent	Number	Percent
Owner	19,765	54.9%	3,994	42.4%	23,759	52.2%
Renter	16,309	45.1%	5,416	57.6%	21,725	47.8%
Total	36,074	100.0%	9,410	100.0%	45,484	100.0%

Source: Bureau of the Census, 2010 Census.

Vacancy rates are an important housing indicator because they indicate the degree of choice available. High vacancy rates usually indicate low demand and/or high supply conditions in the housing market. Too high of a vacancy rate can be difficult for owners trying to sell or rent. Low vacancy rates usually indicate high demand and/or low supply conditions in the housing market. Too low of a vacancy rate can force prices up making it more difficult for low and moderate income households to find housing. Vacancy rates between two to three percent are usually considered healthy for single-family housing; and five to six percent for multi-family housing. However, vacancy rates are not the sole indicator of market conditions. They must be viewed in the context of all the characteristics of the local and regional market.

According to the 2010 Census, the overall vacancy rate in Escondido was 5.3 percent. Specifically, ownership housing had a vacancy rate of 2.2 percent but the rental vacancy rate was at six percent. Additional vacancy information was obtained for spring 2010 from the San Diego County Apartment Association (SDCAA) and is shown in Table 29. Vacancy rates in Escondido were similar to those in neighboring communities and the City and County of San Diego.

Table 29: Vacancy Rates by Community and Property Age

Jurisdiction	Combined Property Ages			Over 25 Years			Six to 25 Years			Less Than 6 Years		
	% Vacant	Total Units	# Vacant	% Vacant	Total Units	# Vacant	% Vacant	Total Units	# Vacant	% Vacant	Total Units	# Vacant
Escondido	5.3%	1,596	84	5.0%	322	16	5.3%	1,274	68	--	--	--
Carlsbad	4.2%	1,577	66	4.6%	351	16	4.5%	925	42	2.7%	301	8
Del Mar	5.8%	260	15	5.8%	260	15	--	--	--	--	--	--
Encinitas	6.5%	464	30	7.2%	376	27	2.8%	71	2	5.9%	17	1
Oceanside	5.9%	2,074	122	7.5%	586	44	3.0%	1,267	38	18.1%	221	40
Solana Beach	4.9%	326	16	4.9%	325	16	--	--	--	0.0%	1	0
No. County Region	5.3%	9,323	495	5.8%	3,140	182	4.7%	5,641	263	9.2%	542	50
San Diego City	5.2%	24,275	1,258	5.2%	9,328	483	5.4%	13,837	742	3.0%	1,109	33
San Diego County	4.6%	25,814	1,192	4.2%	12,710	535	4.8%	12,490	601	9.1%	614	56

Source: San Diego County Apartment Association Survey (Spring 2010).

5. Housing Age and Condition

Housing age can be an important indicator of housing condition within a community. Like any other tangible asset, housing is subject to gradual physical or technological deterioration over time. If not properly and regularly maintained, housing can deteriorate and discourage reinvestment, depress neighboring property values, and eventually impact the quality of life in a neighborhood. Many federal and state programs also use the age of housing as one factor in determining housing rehabilitation needs. Typically, housing over 30 years of age is more likely to have rehabilitation needs that may include new plumbing, roof repairs, foundation work and other repairs.

Although the Censuses did not include statistics on housing condition based upon observations, they did include statistics that correlate very closely with substandard housing. The three factors most commonly used to determine housing conditions are age of housing, overcrowding, and lack of plumbing facilities. Table 30 shows that in 2010 approximately 81 percent of the housing stock was more than 20 years old and 53 percent was over 30 years old.

Housing that is not maintained can discourage reinvestment, depress neighboring property values, and can negatively impact the quality of life in a neighborhood. Improving housing is an important goal of the City. The age of the City’s housing stock indicates a potential need for continued code enforcement, property maintenance and housing rehabilitation programs to stem housing deterioration.

A number of housing units in Escondido are beginning to show a need for rehabilitation. The scope of rehabilitation needed ranges from minor to substantial. Where it is not financially feasible to rehabilitate the units, replacement housing may be required. The vast majority of these substandard units (units in need of repair or replacement) are in the urbanized core of the City. However, other areas of the City include pockets of substandard and/or deteriorating housing stock. Although some of the units considered as substandard in the Censuses have been rehabilitated, many are in the same condition. The substandard units are broken down in the following table:

Table 30: Year Housing Built (1940 – 2010)

Year Built	Number	Percent
1939 or earlier	1,068	2.2%
1940-1959	4,594	9.6%
1960-1969	6,517	13.6%
1970-1979	13,326	27.7%
1980-1989	13,343	27.8%
1990-2000	6,116	12.7%
2000-2010	3,080	6.4%
Total	48,044	100.0%

Note: 2010 Census has no information on age of housing units. This table provides an estimated only, assuming the all net new units were constructed during the last ten years. This estimate does not account for demolitions that had occurred.
Source: Bureau of the Census, 2000 and 2010 Censuses.

Table 31: Substandard Units (2000)

	Number	Percentage
Lacking complete plumbing facilities	149	0.7%
Lacking complete kitchen facilities	356	1.7%
Total occupied substandard units	505	2.4%
Total occupied units:		43,817

Sources: Bureau of the Census, 2000 Census.

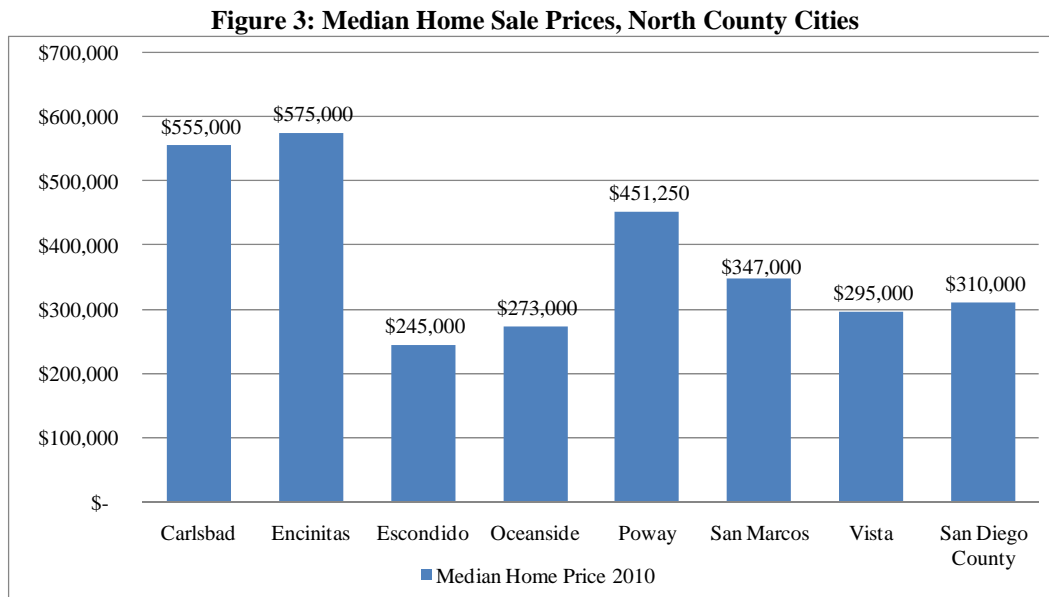
Since substandard housing can cause serious health and safety issues, physical defects should not be used as the only indicator of substandard housing. The Housing Division considers housing units in compliance with local building codes to be standard units. Any housing unit that does not meet these requirements is considered substandard. Common housing code violations make a unit unsafe and/or unsanitary, including problems with electrical wiring, plumbing, windows, roofs and exterior, and heating and air conditioning systems. Escondido's substandard units are all suitable for rehabilitation. The City of Escondido provides low and no interest loans to eligible households for housing rehabilitation.

6. Housing Costs and Affordability

Housing costs are indicative of housing accessibility to all economic segments of the community. Typically, if housing supply exceeds housing demand, housing costs will fall. If housing demand exceeds housing supply, housing costs will rise. This section summarizes the cost and affordability of the housing stock to Escondido residents.

Homeownership Market

Median home prices in the North County areas of San Diego ranged from \$245,000 in Escondido to \$575,000 in Encinitas (Figure 3). Median home sale prices in Escondido dropped 15 percent between 2009 and 2010, the biggest price drop among its neighboring communities.



Source: DQNews (2011).

Table 32: Changes in Median Home Sale Prices (2010)

Jurisdiction	2010		Percent Change in Median Sale Price 2009-2010
	Number Sold	Price	
Carlsbad	1,647	\$555,000	-4.1%
Encinitas	550	\$575,000	-8.7%
Escondido	2,039	\$245,000	-14.9%
Oceanside	2,438	\$273,000	-7.5%
Poway	490	\$451,250	6.2%
San Marcos	1,260	\$347,000	-2.5%
Vista	1,059	\$295,000	6.4%
San Diego County	36,414	\$310,000	-6.1%

Source: DQNews (2011).

Rental Market

The primary source of information on rental costs in the San Diego region is the San Diego County Apartment Association (SDCAA). SDCAA conducts two surveys of rental properties per year. For the spring 2010 survey, 6,000 surveys were sent out to rental property owners and managers throughout San Diego County. Responses were received from 50,089 units. Although this survey sampled a broad variety of rental housing, it was not a scientific sampling.

Table 33 shows that in the spring of 2010, average monthly rents in Escondido ranged from \$925 for a one-bedroom apartment to \$1,312 for a three-bedroom apartment. Apartment rents in Escondido tend to be slightly lower than those in the County of San Diego.

Table 33: Average Monthly Rent (2010)

Zip Code	Unit Type	Spring 2010 Units/Properties Surveyed	Spring 2010 Monthly Rent	Spring 2010 Rent/Sq. Foot	Fall 2009 Monthly Rent	Spring 2009 Monthly Rent
Carlsbad 92008, 92009, 92010, 92011	Studio	78/7	\$911	\$2.11	\$883	\$863
	1 BR	326/17	\$1,176	\$1.88	\$1,171	\$999
	2 BR	849/20	\$1,664	\$1.67	\$1,658	\$1,842
	3+ BR	324/10	\$1,795	\$1.63	\$1,944	\$1,906
Encinitas 92023, 92024	Studio	4/2	\$760	\$1.90	\$766	\$858
	1 BR	143/6	\$1,380	\$1.75	\$1,252	\$1,349
	2 BR	306/11	\$1,527	\$1.49	\$1,534	\$1,554
	3+ BR	1/8	\$1,943	\$1.26	\$1,838	\$2,025
Escondido 92025, 90026, 90027, 90029, 90030, 90033, 90046	Studio	57/2	\$995	\$0.75	\$826	\$700
	1 BR	930/19	\$925	\$1.31	\$910	\$866
	2 BR	522/26	\$1,136	\$1.22	\$1,144	\$976
	3+ BR	87/13	\$1,312	\$1.37	\$1,432	\$1,216
Oceanside 92049, 92050, 92051, 92052, 92054, 92056, 92057, 92058	Studio	19/4	\$796	\$2.16	\$792	\$751
	1 BR	876/23	\$1,072	\$1.54	\$1,040	\$1,005
	2 BR	1,053/32	\$1,297	\$1.36	\$1,191	\$1,358
	3+ BR	126/15	\$2,338	\$1.39	\$1,867	\$1,678
Poway 92064 92074	Studio	0/0	n.a.	n.a.	\$870	n.a.
	1 BR	126/5	\$966	\$1.51	\$999	930
	2 BR	200/6	\$1,258	\$1.42	\$1359	1150
	3+ BR	10/5	\$1,634	\$1.31	\$1741	1800
San Marcos 92069 92073 92076-79	Studio	5/1	\$653	\$1.07	n.a.	n.a.
	1 BR	194/4	\$911	\$1.44	\$931	\$1,098
	2 BR	320/6	\$1,091	\$1.26	\$1,072	\$1,236
	3+ BR	6/6	\$1,830	\$1.02	\$1,804	\$1,474
Vista 92081 92083-85	Studio	90/2	\$828	\$1.93	\$890	\$881
	1 BR	662/8	\$1,012	\$1.41	\$1,302	\$1,001
	2 BR	942/12	\$1,198	\$1.29	\$1,495	\$1,265
	3+ BR	173/9	\$1,436	\$1.23	\$1,442	\$1,458
County of San Diego (including City of San Diego)	Studio	2,300/146	\$967	\$2.13	n.a.	n.a.
	1 BR	18,630/619	\$1,161	\$1.70	n.a.	n.a.
	2 BR	25,536/900	\$1,444	\$1.50	n.a.	n.a.
	3+ BR	3,623/418	\$1,735	\$1.45	n.a.	n.a.

Source: San Diego County Apartment Association Survey (2010).

Housing Affordability by Income Level

Housing affordability can be inferred by comparing the cost of renting or owning a home in the City with the maximum affordable housing costs for households at different income levels. Taken together, this information can generally show who can afford what size and type of housing and indicate the type of households most likely to experience overcrowding and overpayment.

The federal Department of Housing and Urban Development (HUD) conducts annual household income surveys nationwide to determine a household's eligibility for federal housing assistance. Based on this survey, the California Department of Housing and Community Development (HCD) developed income limits that can be used to determine the maximum price that could be affordable to households in the upper range of their respective income category. Households in the lower end of each category can afford less by comparison than those at the upper end. The maximum affordable home and rental prices for residents in San Diego County are shown in Table 34.

Table 34 shows the maximum amount that a household can pay for housing each month without incurring a cost burden (overpayment). This amount can be compared to current housing asking prices (Table 32) and market rental rates (Table 33) to determine what types of housing opportunities a household can afford.

Table 34: Affordable Housing Cost

Annual Income	Affordable Housing Cost		Utilities, Taxes and Insurance			Affordable Price		
	Rent	Purchase	Rent	Sale	Taxes/Insurance	Sale	Rent	
Extremely Low Income (30% of Area Median Income)								
1-Person	\$16,500	\$413	\$413	\$71	\$112	\$83	\$38,322	\$342
3-Person	\$21,200	\$530	\$530	\$90	\$174	\$106	\$43,947	\$530
4-Person	\$23,550	\$589	\$589	\$99	\$205	\$118	\$46,760	\$589
5-Person	\$25,450	\$636	\$636	\$114	\$252	\$127	\$45,178	\$522
Very Low Income (50% of Area Median Income)								
1-Person	\$27,500	\$688	\$688	\$71	\$112	\$138	\$76,996	\$617
3-Person	\$35,350	\$884	\$884	\$90	\$174	\$177	\$93,696	\$794
4-Person	\$39,250	\$981	\$981	\$99	\$205	\$196	\$101,958	\$882
5-Person	\$42,400	\$1,060	\$1,060	\$114	\$946	\$212	\$104,771	\$946
Low Income (80% Area Median Income)								
1-Person	\$44,000	\$1,100	\$1,100	\$71	\$112	\$220	\$135,007	\$1,029
3-Person	\$56,550	\$1,414	\$1,414	\$90	\$174	\$283	\$168,231	\$1,324
4-Person	\$62,800	\$1,570	\$1,570	\$99	\$205	\$314	\$184,755	\$1,471
5-Person	\$67,850	\$1,696	\$1,696	\$114	\$252	\$339	\$194,248	\$1,582
Median Income (100% Area Median Income)								
1-Person	\$52,850	\$1,321	\$1,541	\$71	\$112	\$308	\$197,090	\$1,250
3-Person	\$67,950	\$1,699	\$1,982	\$90	\$174	\$396	\$248,127	\$1,609
4-Person	\$75,500	\$1,888	\$2,202	\$99	\$205	\$440	\$273,646	\$1,789
5-Person	\$81,550	\$2,039	\$2,379	\$114	\$252	\$476	\$290,200	\$1,925
Moderate Income (120% AMI)								
1-Person	\$63,400	\$1,585	\$1,849	\$71	\$112	\$370	\$240,363	\$1,514
3-Person	\$81,550	\$2,039	\$2,379	\$90	\$174	\$476	\$303,911	\$1,949
4-Person	\$90,600	\$2,265	\$2,643	\$99	\$205	\$529	\$335,583	\$2,166
5-Person	\$97,850	\$2,446	\$2,854	\$114	\$252	\$571	\$357,058	\$2,332

Source: California Department of Housing and Community Development (2010) and Veronica Tam and Associates
 Assumptions: 2010 HCD income limits; 30% gross household income as affordable housing cost; 15% of monthly affordable cost for taxes and insurance; 10% downpayment; and 5.5% interest rate for a 30-year fixed-rate mortgage loan. Utilities based on San Diego County Utility Allowance.

Extremely Low income Households

Extremely low income households earn 30 percent or less of the County area median income – up to \$16,500 for a one-person household and up to \$25,450 for a five-person household in 2010. Extremely low income households cannot afford market-rate rental or ownership housing in Escondido without assuming a cost burden.

Very Low income Households

Very low income households earn between 31 percent and 50 percent of the County area median income – up to \$27,500 for a one-person household and up to \$42,400 for a five-person household in 2010. A very low income household can generally afford homes offered at prices between \$77,000 and \$104,800, adjusting for household size. Given the costs of ownership

housing in Escondido, very low income households would not be able to afford a home in the City, except perhaps mobile homes. Similarly, very low income renters could not afford appropriately-sized market-rate rental units in the City. After deductions for utilities, a very low income household at the maximum income limit can afford to pay approximately \$617 to \$946 in monthly rent, depending on household size.

Low income Households

Low income households earn between 51 percent and 80 percent of the County's area median income - up to \$44,000 for a one-person household and up to \$67,850 for a five-person household in 2010. The affordable home price for a low income household at the maximum income limit ranges from \$135,000 to \$194,000. Based on the asking prices of homes for sale in 2010 (Table 32), ownership housing would not be affordable to low income households. After deductions for utilities, a one-person low income household could afford to pay up to \$1,029 in rent per month and a five-person low income household could afford to pay as much as \$1,582. As of Spring 2010, most low income households in Escondido would be able to find adequately sized affordable apartment units (Table 33), although the availability of such units may be limited.

Moderate income Households

Moderate income households earn between 81 percent and 120 percent of the County's Area Median Income – up to \$97,850 depending on household size in 2010. The maximum affordable home price for a moderate income household is \$240,000 for a one-person household and \$357,000 for a five-person family. Moderate income households in Escondido would have little trouble purchasing adequately-sized homes. The maximum affordable rent payment for moderate income households is between \$1,514 and \$2,332 per month. Appropriately-sized market-rate rental housing is generally affordable to households in this income group.

F. Affordable Housing

State law requires that the City identify, analyze, and propose programs to preserve existing multi-family rental units that are eligible to convert to non-low-income housing uses due to termination of subsidy contract, mortgage prepayment, or expiring use restrictions during the next ten years. Thus, this at-risk housing analysis covers the period from January 1, 2013 through December 31, 2023. Consistent with State law, this section identifies publicly assisted housing units in Escondido, analyzes their potential to convert to market rate housing uses, and analyzes the cost to preserve or replace those units.

1. Publicly Assisted Housing

The City of Escondido has a large inventory of publicly assisted rental housing affordable to lower and moderate income households. Table 35 provides a summary listing of affordable projects in the City. Overall, 22 projects (totaling 1,344 rental housing units) in the City include affordable units. Specifically, 1,336 units are set aside as housing for lower and moderate income households.

Table 35: Inventory of Assisted Rental Housing Projects

Name of Project	Total Units	Assisted Units			Funding Source	Type	Earliest Conversion
		VL	L	Mod			
Units at Risk between 2013 and 2023							
Escondido Apt. 500 N. Midway Drive	92	91	0	0	HUD Section 236 & Section 8 Contract	Family	Section 8: 12/31/2011 Section 236: 2/8/2046
Silvercrest Escondido 832 N. Juniper Street	75	74	0	0	HUD Section 202 & Section 8 Contract	Seniors	4/30/2011
Michalowski House 11337 Caprice Road	6	6	0	0	HUD Section 811 & Section 8 Contract	Disabled	8/31/2013
Las Casitas I 1203 S. Maple	6	0	6	0	HOME TCAC	Family/Transitional	2014
Daybreak 1256 E. Washington Ave	13	0	13	0	RDA TCAC	Family	12/2021
Sunrise Place 1245 E. Grand Ave	8	0	8	0	RDA TCAC	Family	12/2021
Subtotal	200	171	27	0			
Units at Risk After 2023							
Orange Place Cooperative 1500 S. Orange Place	32	0	31	0	TCAC	Family	2027
Southwest Summit 460 E. Washington	91	0	89	0	TCAC	Family	2029
Aster/Genesis 518-532 Aster St.	8	8	0	0	RDA State HOME	Family	6/2034
Eucalyptus View 1805 S. Escondido Blvd.	24	0	24	0	TCAC	Family	2037
Sonoma Court 508 W Mission Ave.	60	27	33	0	RDA State HOME TCAC	Family	8/2037
Las Casitas II 805-811 E. Washington	8	0	8	0	RDA HOME	Family/transitional	3/2039
The Terraces 1301 Morning View Dr.	190	76	114	0	TCAC RDA	Family	12/2048
Emerald Gardens 425 W 11 th Ave	16	8	8	0	HOME RDA CDBG TCAC	Family	5/2053
Cobblestone 360 E. Washington Ave.	44	9	34	1	RDA TCAC	Family	11/2055
Cypress Cove 260 North Midway	200	20	178	0	RDA TCAC	Family	2055

Table 35: Inventory of Assisted Rental Housing Projects

Name of Project	Total Units	Assisted Units			Funding Source	Type	Earliest Conversion
		VL	L	Mod			
Juniper Senior Village 215 E. Washington	61	51	9	0	RDA HOME TCAC HCD Infill FHLB	Seniors	12/2065
Las Ventanas 1404-1460 S. Escondido Blvd.	80	8	52	20	RDA TCAC	Family	6/2061
Villa Escondido 511 E. Grand Ave.	112	0	112	0	TCAC	Seniors	2065
Windsor Gardens 1600 W. 9 th Ave.	132	65	65	2	RDA	Seniors	11/8/2065
Orange Place 1611 S. Orange Place	15	3	12	0	HOME RDA	Family	6/2068
Via Roble 1553 S. Escondido	71	24	25	22	RDA TCAC	Family	6/2068
Subtotal	1,144	299	794	45	---	---	---
Total	1,344	470	821	45	---	---	---

Source: City of Escondido.

Preservation of At-Risk Housing

Within the 2013-2023 “at-risk” housing analysis period, six projects are considered at risk of converting to market-rate housing. These projects offer 200 housing units, inclusive of 198 units that are affordable to lower income households. Among these six projects, three are at risk due to expiring Section 8 contracts (Escondido Apartments, Silvercrest Escondido, and Michalowski House). The other three projects (Las Casitas I, Daybreak, and Sunrise Place) are nonprofit-owned affordable housing and have low risk of converting to market-rate housing.

Preservation and Replacement Options

To maintain the existing affordable housing stock, the City works to preserve the existing assisted units or facilitate the development of new units. Depending on the circumstances of the at-risk projects, different options may be used to preserve or replace the units. Preservation options typically include: 1) transfer of units to non-profit ownership; 2) provision of rental assistance to tenants using other funding sources; and 3) purchase of affordability covenants. In terms of replacement, the most direct option is the development of new assisted multi-family housing units. These options are described below.

Transfer of Ownership: Transferring ownership of an at-risk project to a non-profit housing provider is generally one of the least costly ways to ensure that the at-risk units remain affordable for the long term. By transferring property ownership to a non-profit organization, low income restrictions can be secured and the project would become potentially eligible for a greater range of governmental assistance. Only one of the six at-risk projects is not already

owned by nonprofit agencies – the 92-unit Escondido Apartments. The estimated market value for the Escondido Apartments is provided in Table 36.

Table 36: Market Value of At-Risk Housing Units

Escondido Apartments	
One-Bedroom Units	92
Annual Operating Cost	\$248,400
Gross Annual Income	\$1,191,973
Net Annual Income	\$943,573
Market Value	\$11,794,658

Market value for project is estimated with the following assumptions:

1. Average market rent based on Fair Market Rents established by HUD. One-bedroom unit = \$1,149 (higher than the average rent for a one-bedroom unit from 2010 rent survey by the San Diego County Apartments Association).
2. Average bedroom size for one-bedroom assumed at 600 square feet.
3. Annual income is calculated on 91 units (one unit is manager’s unit) and a vacancy rate = 5%
4. Annual operating expenses per square foot = \$4.50
5. Market value = Annual net project income*multiplication factor
6. Multiplication factor for a building in good condition is 12.5.

Current market value for the units is estimated on the basis of the project’s potential annual income, and operating and maintenance expenses. As indicated below, the estimated market value of Escondido Apartments is \$11.8 million. (This estimate is provided for the purpose of comparison and understanding the magnitude of costs involved and does not represent the precise market value of this project. The actual market value at time of sale will depend on market and property conditions, lease-out/turnover rates, among other factors.)

Rental Assistance: Tenant-based rent subsidies could be used to preserve the affordability of housing. Similar to Section 8 vouchers, the City, through a variety of potential funding sources, could provide rent subsidies to tenants of at-risk units. The level of the subsidy required to preserve the at-risk units is estimated to equal the Fair Market Rent (FMR) for a unit minus the housing cost affordable by a lower income household. Table 37 estimates the rent subsidies required to preserve the affordability of the 198 at-risk units. Based on the estimates and assumptions shown in this table, approximately \$930,735 in rent subsidies would be required annually.

Table 37: Rental Subsidies Required

Unit Size	Total Units	Fair Market Rent	Household Size	Household Annual Income	Affordable Cost (Minus Utilities)	Monthly per Unit Subsidy	Total Monthly Subsidy
Very Low Income (50% AMI)							
1-BR	171	\$1,149	2	\$31,400	\$730	\$419	\$71,649
Low Income (81% AMI)							
2-BR	14	\$1,406	3	\$56,550	\$1,344	\$62	\$872
3-BR	13	\$1,999	5	\$67,850	\$1,611	\$388	\$5,040
Total	198	---	---	---	---	---	\$77,561

Notes:

1. Fair Market Rents (FMR) are determined by HUD.
2. San Diego County 2010 Area Median Household Income (AMI) limits set by the California Department of Housing and Community Development (HCD).
3. Affordable cost = 30% of household income minus utility allowance.

Purchase of Affordability Covenants: Another option to preserve the affordability of the at-risk project is to provide an incentive package to the owner to maintain the project as affordable housing. Incentives could include writing down the interest rate on the remaining loan balance, providing a lump-sum payment, and/or supplementing the rents to market levels. The feasibility and cost of this option depends on whether the complex is too highly leveraged and interest on the owner’s part to utilize the incentives found in this option. By providing lump sum financial incentives or ongoing subsidies in rents or reduced mortgage interest rates to the owner, the City could ensure that some or all of the units remain affordable.

Construction of Replacement Units: The construction of new low income housing units is a means of replacing the at-risk units should they be converted to market-rate units. The cost of developing housing depends upon a variety of factors, including density, size of the units (i.e. square footage and number of bedrooms), location, land costs, and type of construction.

Based on proformas of recent affordable housing projects, the average development cost (including land) for a senior unit is \$258,000 and for a family unit is \$478,000. Therefore, to replace the 80 senior/disabled units and 112 family units would require a total development cost of \$74.2 million.

Cost Comparisons: The above analysis attempts to estimate the cost of preserving the at-risk units under various options. However, because different projects have different circumstances and therefore different options available, the direct comparison would not be appropriate. In general, providing additional incentives/subsidies to extend the affordability covenant would require the least funding over the long run, whereas the construction of new units would be the most costly option. Over the short term, providing rent subsidies would be least costly but this option does not guarantee the long-term affordability of the units.

Resources for Preservation

Preservation of at-risk housing requires not only financial resources but also administrative capacity of nonprofit organizations. These resources are discussed in detail later in this Housing Element in the “Housing Resources” section.

III. Housing Constraints

Actual or potential constraints to the provision of housing affect the development of new housing and the maintenance of existing units for all income levels. Governmental and non-governmental constraints in Escondido are similar to those in other jurisdictions in the region and are discussed below. One of the most, if not the most, significant and difficult constraints to housing in Escondido and elsewhere in the San Diego region is the high cost of land. This section describes various governmental, market, and environmental constraints on the development of housing that meets the needs of all economic segments of Escondido population.

A. Market Constraints

Market constraints significantly affect the cost of housing in Escondido, and can pose barriers to housing production and affordability. These constraints include the availability and cost of land for residential development, the demand for housing, financing and lending, construction costs, development fees, and neighborhood opposition which can make it expensive for developers to build affordable housing. The following highlights the primary market factors that affect the production of housing in Escondido.

1. Economic Factors

Market forces on the economy and the trickle down effects on the construction industry can act as a barrier to housing construction and especially to affordable housing construction. California's housing market peaked in the summer of 2005 when a dramatic increase in the State's housing supply was coupled with low interest rates. The period between 2006 and 2009, however, reflects a time of significant change as the lending market collapsed and home prices saw significant decreases. Double-digit decreases in median sale prices were recorded throughout the State. These lower-than-normal home prices allowed for a large increase in the number of homes sold initially until the availability of credit became increasingly limited. As such, housing production in the last few years has been limited while the need for affordable housing increased along with high unemployment rates and foreclosure rates.

2. Land and Construction Costs

Residential land prices contribute significantly to the cost of new housing. Raw land and improvements costs comprise approximately 40 percent of the total development costs of a residential dwelling. Land prices in Escondido have risen significantly in recent years. However, it should be noted that land costs in Escondido are generally less when compared to land costs in many other areas of San Diego County. Furthermore, raw land values must be considered in relation to costs rising from the provision of adequate facilities and services, and the City's efforts to encourage redevelopment and rehabilitation will help lower costs where facilities and services are already provided.

Basic construction costs for residential developments have increased rapidly. Construction costs, together with land prices, have pushed up the cost of housing greatly, making homeownership unattainable for many households. These costs are relatively constant over the region. The basic

components of labor and material do not fluctuate much by area. Site preparation costs can be substantial, but the variations are more a function of the site, than of the jurisdiction.

3. Availability of Financing

The availability of financing affects a person’s ability to purchase or improve a home. Under the Home Mortgage Disclosure Act (HMDA), lending institutions are required to disclose information on the disposition of loan applications by the income, gender, and race of the applicants. This applies to all loan applications for home purchases, improvements and refinancing, whether financed at market rate or with government assistance. The data for Escondido was compiled by census tract and aggregated to the area that generally approximates the City’s boundaries.

Table 38 summarizes the disposition of loan applications submitted to financial institutions in 2009 for home purchase, refinance, and home improvement loans in Escondido. Included is information on loan applications that were approved and originated, approved but not accepted by the applicant, denied, withdrawn by the applicant, or incomplete.

Table 38: Disposition of Home Loans (2009)

Loan Type	Total Applicants	Percent Approved	Percent Denied	Percent Other
Government-Backed Purchase	1,371	72.6%	13.6%	13.9%
Conventional Purchase	1,214	69.4%	18.5%	12.1%
Refinance	3,531	61.9%	21.1%	16.9%
Home Improvement	151	60.9%	25.8%	13.2%
Total	6,267	65.7%	19.1%	15.2%

Source: www.ffiec.gov

Home Purchase Loans

In 2009, a total of households applied for conventional loans to purchase homes in Escondido. The overall loan approval rate was 69 percent and 19 percent of applications were denied. In comparison, 71 percent of conventional home loan applications were approved in San Diego County. Approximately 1,371 home purchase applications were submitted in Escondido through government-backed loans (for example, FHA, VA) in 2009; 73 percent of these applications approved. To be eligible for such loans, residents must meet the established income standards, maximum home values, and other requirements. For government-backed loans, the approval rate for the San Diego County was 74 percent. In general, access to home purchase financing in Escondido reflects countywide trends.

Refinance Loans

The majority of loan applications submitted by Encinitas residents in 2009 were for refinancing their existing home loans (3,531 applications). About 62 percent of these applications were approved, while 21 percent were denied. The recent credit crisis that began in 2007, and

heightened in 2008, has likely caused refinancing activities to fall recently. In the San Diego County, 65 percent of refinancing applications were approved.

Home Improvement Loans

A larger proportion of Escondido applicants were denied for home improvement loans than any other type of loan applications. Over one-quarter of all applicants (26 percent) were denied and just 61 percent were approved by lending institutions in 2009. The large proportion of home improvement loan denials may be explained by the nature of these loans. Most home improvement loans are second loans and therefore more difficult to qualify for due to high income-to-debt ratios. In San Diego County, home improvement loan applications had a slightly lower approval rate (57 percent) than in the City of Escondido.

Foreclosures

With low interest rates, “creative” financing (for example, zero down, interest payment only, adjustable loans), and predatory lending practices (for example, aggressive marketing, hidden fees, negative amortization), many households nationwide purchased homes that were beyond their financial means between 2000 and 2005. Under the false assumptions that refinancing to lower interest rates would always be an option and home prices would continue to rise at double-digit rates, many households were unprepared for the hikes in interest rates, expiration of short-term fixed rates, and decline in sales prices that set off in 2006. Suddenly faced with significantly inflated mortgage payments, and mortgage loans that are larger than the worth of the homes, foreclosure was the only option available to many households.

Statewide, the number of foreclosures in 2010 has declined substantially from the previous year. During the third quarter of 2010, a total of 5,869 Notices of Default (NODs) were recorded in San Diego County, a decrease of over 32 percent from the third quarter of 2009. In May 2011, 1,022 homes in Escondido were listed as foreclosures. These homes were listed at various stages of foreclosure (from pre-foreclosures to auctions) and ranged in price, with some properties listed as high as \$1.7 million. The high prices of these homes facing foreclosure indicate that the impact of foreclosure affects not just lower and moderate income households, but also households with higher incomes.

B. Governmental Constraints

Aside from market factors, housing affordability is also affected by factors in the public sector. Local policies and regulations can impact the price and availability of housing and, in particular, the provision of affordable housing. Land use controls, site improvement requirements, fees and exactions, permit processing procedures, among other issues may constrain the maintenance, development and improvement of housing. This section discusses potential governmental constraints in Escondido and efforts to address them.

1. Land Use Controls

The Land Use Element sets forth City policies for guiding local land use development. These policies, together with existing zoning regulations, establish the amount and distribution of land allocated for different uses.

The City initiated a comprehensive update to its General Plan in 2008. While the General Plan update examines different land use policies and opportunities for growth, most of the existing residential neighborhoods are expected to be preserved. Future residential growth will be focused in two areas: Downtown Specific Plan and south Escondido Boulevard.

Residential Land Use Designations

The land use policies of the City have a direct impact upon the provision of housing for all economic sectors of the community. The General Plan designates substantial areas of land for residential development, and the Zoning code permits a wide variety of residential uses, ranging from multi-family housing to large estates. Table 39 lists the residential land use designations in the General Plan.

Table 39: Land Use Designations Permitting Residential Use

Land Use Category	Zoning District	Max. Density (du/acre)	Character
Rural I	R-A	1 unit/4 acres	To promote a rural living environment in areas of agricultural production, rugged terrain, and environmentally constrained lands that are remote from urban development.
Rural II	R-A	1 unit/2 acres	To promote a rural living environment in areas of agricultural production or rugged terrain that are relatively remote from urban development.
Estate I	R-E	1 unit/1 acre	To promote a large lot, single-family development in areas bordering Rural lands. This classification is typified by development along Mary Lane, North Broadway and around Felicita Park.
Estate II	R-E	2.0	To promote single-family urban development on relatively large lots. This classification typified by development at Lomas Serenas, Rancho Verde, and along Citrus Avenue around San Pasqual Valley Road.
Suburban	R-1	3.3	This residential classification is characterized by single-family homes. The density is appropriate where the traditional neighborhood character of detached single-family units prevails. This classification is typified by development at Summercreek and areas southeast of Bear Valley Parkway along Citrus Avenue and along the south side of Avenida del Diablo.
Urban I	R-1	5.5	Detached single-family homes, characteristic of much of Escondido, constitute this medium density category. Typical development at this density is found along Country Club Lane and between Ash and Citrus north of Washington.

Table 39: Land Use Designations Permitting Residential Use

Land Use Category	Zoning District	Max. Density (du/acre)	Character
Urban II	R-2	12.0	This residential classification allows a wide range of living accommodations, ranging from conventional single-family units to mobile homes. Development at this level of intensity normally would be semidetached or attached units, and include duplexes, triplexes, and fourplexes. Typical Urban II development is found on North Broadway between Lincoln and Sheridan Avenues, and Citrus Avenue between Valley Parkway and the Flood Control Channel.
Urban III	R-3	18.0	This residential category is typified by low-rise townhouses and apartment buildings. Typical projects at this density can be found near Centre City Parkway at El Norte, east Grand Avenue, and near Washington and Fig.
Urban IV	R-4	24.0	This residential category is predominantly characterized by apartment buildings about three stories in height. Representative development at this density is found south of 9 th Avenue west of I15.

Source: Land Use Element, City of Escondido General Plan

Currently, the General Plan residential land use designations do not have minimum densities. The General Plan update introduces a minimum density for each designation, ensuring the efficient use of land in the City and reducing the potential for incompatibilities among neighboring issues.

Furthermore, 80 acres of land are designated for Urban IV. As part of the General Plan update, the City proposes to take 44 acres of the Urban IV (R-4) and increase the density to 45 units per acre, with a 70 percent minimum floor density (at 31.5 units per acre). Because the Zoning Code update to implement this new land use designation will occur after the adoption of the new General Plan (anticipated in 2013), this Housing Element (required to be adopted by the end of 2012) does not factor in this density increase when estimating development capacity.

Specific Plans

The City of Escondido has adopted a number of specific plans, which offer a range of housing types, densities, and mix of uses. The City anticipates that much of its new residential growth will occur in the following areas:

- Downtown Specific Plan (Revised March 10, 2010)
- South Escondido Boulevard Area Plan (Revised July 9, 2010)

Downtown Area Specific Plan

The Downtown Specific Plan area encompasses approximately 460 acres extending from I-15 and West Valley Parkway to Palomar Hospital, between Washington and Fifth Avenues. The Specific Plan Area includes the City’s urban core along Grand Avenue where Escondido was incorporated in 1888. The Downtown Specific Plan provides a comprehensive plan for land use,

development regulations, development incentives, design guidelines and other related actions aimed at implementing the following strategic goals for Downtown Escondido:

- Ensure an economically viable Downtown by providing a balance of retail, office, residential, entertainment and cultural uses.
- Expand Escondido’s reputation as a local and regional destination for specialty shopping, dining, nightlife, employment, culture, and the arts.
- Promote a vibrant and exciting Downtown environment by establishing areas with land uses that foster an “18-hour” atmosphere, in addition to areas that provide mixed use, office employment and high density residential opportunities.
- Strengthen the character of Downtown with new development that is architecturally compatible with the existing urban fabric.
- Improve the pedestrian orientation of Downtown by incorporating street level human-scale design elements in new and remodeled developments.
- Maintain the character of Downtown by preservation of historically significant sites and structures.
- Reinforce and expand the unique character of Grand Avenue’s retail core area by promoting pedestrian-oriented, ground-floor, specialty retail and restaurant uses.
- Promote higher residential densities in key locations that will support Downtown retail, employment and cultural uses.
- Enhance the pedestrian opportunities in Downtown by providing pedestrian connections, convenient access and opportunities for alternative modes of transportation.
- Improve the walkability by developing enhanced pedestrian connections with such features as embellished landscaping, public art, comfortable street furniture and decor.
- Maximize parking opportunities in the Downtown area

The Downtown Specific Plan includes seven distinct land use districts that allow for residential development or mixed-use development with substantial residential components:

- Historic Downtown District (HD)
- Parkview District (PV)
- Centre City Urban District (CCU)
- Gateway Transit District (GT)
- Mercado District (M)
- Southern Gateway District (SG)

- Creekside Neighborhood District (CN)

Residential development of up to 45 units per acre (through mixed use development) can be accommodated in the Downtown Specific Plan area. The Specific Plan also establishes residential development standards that differ from the rest of the City. Table 40 summarizes the standards specific to the City’s downtown area.

Figure 4: Downtown Escondido Specific Plan

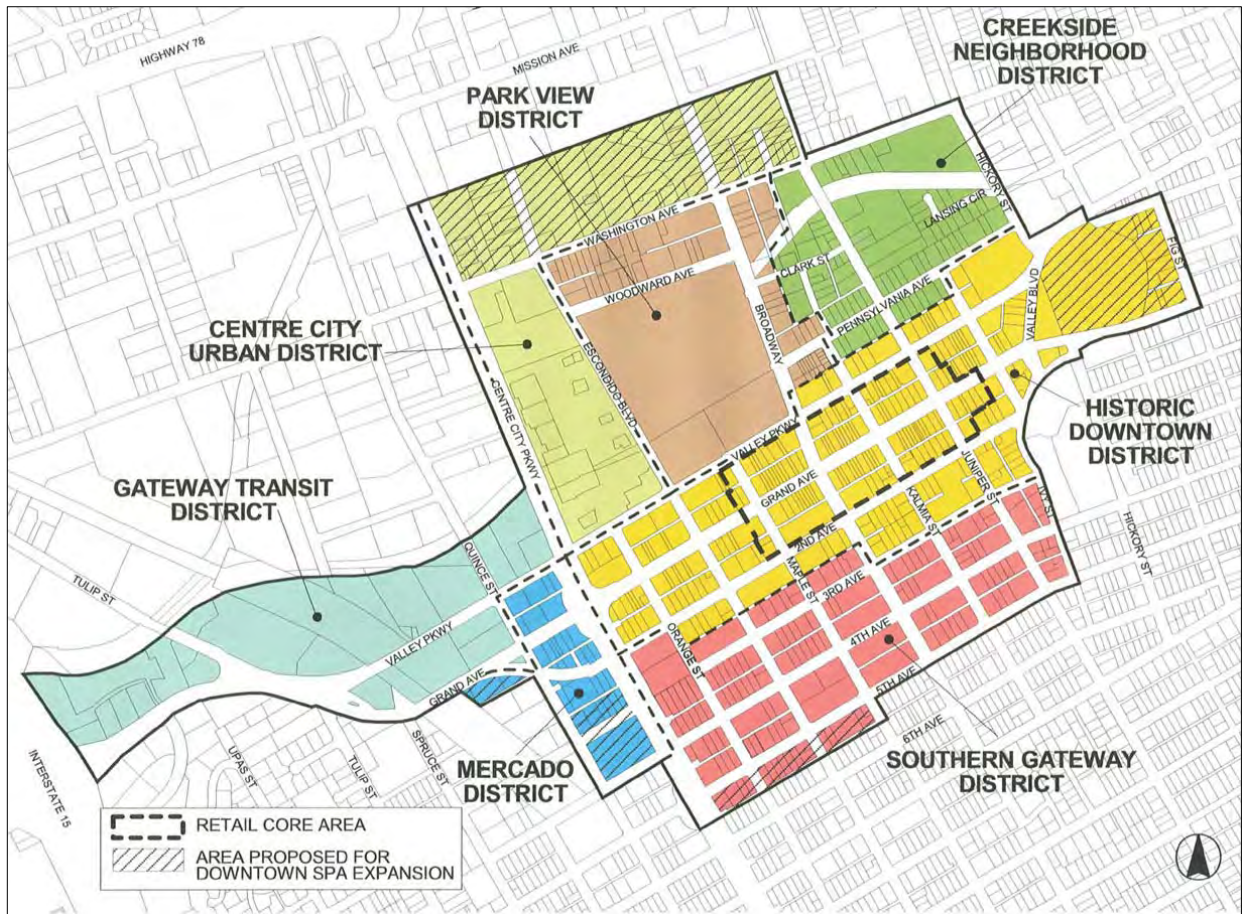


Table 40: Downtown Specific Plan Residential Development Standards

District	Maximum Building Height (ft.)	Setbacks (ft.)				Min. Lot Size	Max. Building Coverage	Allows Mixed Use?
		Front	Side Street	Side Yard	Rear Yard			
HD	45-120	0*	0	n/a	0	None	None	Y
PV	35-85		10	0				
CCU	60-75							
GT	35-57	0	0	0				
M	55							
SG	28-57	10	10	5	10			
CN	28-57	10						

* 10 feet strongly encouraged

South Escondido Boulevard Area Plan

The entire South Escondido Boulevard Area Plan is approximately 2.25 miles in length, beginning at 5th Avenue and continuing south to the terminus of Escondido Boulevard at Center City Parkway and Verda Avenue. This area plan was developed with the intention of implementing strategies for the South Escondido Boulevard commercial corridor and Centre Center Parkway residential area to provide a wide range of opportunities in the area. The Plan includes goals and recommendations regarding existing and future uses, development standards and regulations, incentives, design guidelines, and the extent and timing of public facilities and services.

For residential land use, the Area Plan seeks to maximize affordable housing opportunities and provide opportunities for a balanced mix of housing types through a variety of incentives and programs. The Plan provides for a Mixed Use (MU) designation that permits the integration of residential, commercial, and professional office uses in a single project via a Planned Development (PD) zone. The MU designation allows up to 24 units per acre and a maximum height of three stories.

Growth Management Controls

The City has three growth management measures that impact the pace and capacity of residential growth:

- Ordinance 94-16
- Proposition S
- Ordinance 2004-01

Ordinance 94-16 came into effect on May 18, 1994. It is a citywide facilities management plan that replaces all prior growth management ordinances. While facilities are generally available citywide, the North Broadway Region of Influence has had critical infrastructure deficiencies with respect to drainage and water storage capacity. The region is located in the northeast part of Escondido. Should adequate facilities not be available within the region, the ordinance allows development of projects subject to the approval of a development agreement. The agreement

must ensure that the project either provides facilities necessary to upgrade existing deficiencies or financially participates toward their solution.

A subsequent ordinance (95-11) also allows development of a single-family residence on an existing vacant lot of record, zoned for residential use, where the lot was created prior to June 6, 1990, within the Region of Influence. A supplemental deposit is required at the time of Building Permit issuance to ensure facility impacts are addressed.

Proposition S passed in 1998. It requires voter approval of specified future changes to the Escondido General Plan. General Plan changes, subject to Proposition “S”, include increasing residential densities, changing or increasing the residential land use categories, or changing any residential to commercial or industrial designation on any property designated as Rural, Estate, Suburban, or Urban.

The City initiated a comprehensive General Plan update in 2008. The Draft General Plan will be placed on the November 2012 ballot for approval by Escondido residents. Because of the timing of the General Plan update, this Housing Element examines the residential development capacity under the existing General Plan and zoning. The General Plan update preserves existing land use policies in much of the City’s residential neighborhoods and proposes no significant residential land use changes throughout the City except for the mixed use development along South Escondido Boulevard (see discussion above). The proposed increase in density from 24 units per acre to 45 units per acre in the South Escondido Boulevard Area Plan will result in increased capacity in the City. Due to the timing of the General Plan update, this increased capacity is not factored in the City’s sites inventory for meeting the Regional Housing Needs Allocation (RHNA) for the 2013-2020 planning period.

Overlay Zones and Other Districts

Mixed Use Overlay Zone

As part of the General Plan update, the City has identified new areas for mixed use development. The new Mixed Use Overlay areas (approximately 340 acres) will accommodate 80 units per acre. Because the Zoning Code will not be updated to implement this new overlay zone until after the adoption of the General Plan (expected in 2013), this Housing Element (required to be adopted by the end of 2012) does not include the additional capacity to be made available through the proposed Mixed Use Overlay.

Flood Plain Overlay Zone

The purpose of the Flood Plain (FP) overlay zone is to provide land use regulations in areas with properties situated within the designated flood plains of rivers, creeks, streams and water courses in order to protect the public health, safety and welfare and to minimize losses to property and life due to flooding and periodic inundation. The City restricts or prohibits uses in this zone which are dangerous to health, safety or property in times of flood or cause excessive increases in flood heights or velocities. The City also requires uses vulnerable to floods to be protected against flood damage at the time of initial construction.

Centre City Residential (CCR) Overlay Zone

The purpose of Centre City Residential (CCR) Overlay Zone is to provide standards for development in the Centre City residential area that will encourage the revitalization of the neighborhood. The CCR overlay zone is used in conjunction with the R-4 (residential multifamily) zone. Within the CCR overlay zone, the City's density bonus provisions may be applied to projects that contain less than four units. Residential development in this zone is subject to separate development standards and design guidelines.

Planned Development (P-D) Zone

The purpose of the Planned Development (P-D) zone is to provide a more flexible regulatory procedure by which the basic public purposes of the Escondido general plan and the Escondido zoning code may be accomplished and to encourage creative approaches to the use of land through variation in the siting of buildings and the appropriate mixing of several land uses, activities and dwelling types. For planned developments in which residential uses are proposed on parcels of land in the R-3 and R-4 zones, area plans, and in specific plan areas with a maximum specified multifamily residential density, no planned development will be approved at a density below 70 percent of the maximum permitted density of the underlying multifamily zone, area plan or specific plan multi-family designation. Residential planned developments in this overlay zone are also encouraged to depart from standard subdivision and housing design by providing a variety of lot sizes and housing types, provided that the overall residential density yield conforms with the City's policies.

Old Escondido Neighborhood Historic District

The boundaries of this District are Fifth Avenue on the north, Chestnut Street on the east, Thirteenth Avenue on the south and South Escondido Boulevard on the west, excluding properties fronting on Escondido Boulevard, and including north side of Fifth Avenue from Juniper to Date. The purpose and intent of the Old Escondido Neighborhood historic district is to preserve the single-family residential character of the neighborhood and the historic/cultural resources of the neighborhood. This District is also intended to emphasize orientation towards pedestrian activities in the area.

Density Bonus and Residential Incentive Ordinance

The City adopted and updated its Density Bonus and Residential Incentive Ordinance in the 1990s. The current ordinance allows a minimum density bonus of 25 percent and deviations from the Zoning Code for affordable or senior housing. Since parking and setbacks can be reduced, a developer could feasibly increase the number of units or bedrooms without increasing the size of the site. The City's Density Bonus and Residential Incentive Ordinance is particularly useful in the acquisition and rehabilitation of developments made affordable to low-income residents in the higher multi-family zones. For example, the ordinance was utilized to increase the number of bedrooms in the acquisition and rehabilitation of the 15th Avenue Cooperative and Sonoma Court, both are affordable housing projects.

However, current State law requires jurisdictions to provide density bonuses and development incentives to all developers who propose to construct affordable housing on a sliding scale, where the amount of density bonus and number of incentives vary according to the amount of

affordable housing units provided. Specifically, State law requires the provision of certain incentives for residential development projects that set aside a certain portion of total units to be affordable to lower and moderate income households. Under State law, a development of more than five units is eligible to receive density bonuses if it meets at least one of the following:

- *Very Low Income Units:* Five percent of the total units of the housing development as target units affordable to very low-income households; or
- *Low Income Units:* Ten percent of the total units of the housing development as target units affordable to low-income households; or
- *Moderate Income Units:* Ten percent of the total units of a newly constructed condominium project or planned development as target units affordable to moderate-income households, provided all the units are offered for purchase; or
- *Senior Units:* A senior citizen housing development of 35 units or more.

The existing Escondido density bonus provisions are not consistent with the State density bonus law. The Housing Plan of this Housing Element includes a program to amend the City's density bonus provisions to ensure compliance with State law.

The Density Bonus and Residential Incentives Ordinance encourages development of housing for lower income and senior households. Other processes in the Zoning Ordinance help in the development of housing for the higher income households as well as the lower income households. For example, the City retains a sizeable amount of large-lot zoning to accommodate the housing needs and preferences of moderate and higher income households. This strategy is aimed at satisfying high-tech businesses wishing to locate in Escondido. Planned Developments, Specific Plans and Administrative Adjustments are also available to assist in the development and rehabilitation of housing for all economic sectors of the community.

These processes are particularly helpful where properties may be constrained. Specific Plans and Planned Developments allow for clustering of smaller lots into buildable areas, while preserving unique or environmentally sensitive areas such as ridgelines, stream courses and steep slopes. Planned Developments and Specific Plans are useful for large scale developments, while administrative adjustments are more useful on a small scale basis where deviations from the code may enable the development on a constrained site or an addition to an existing single-family home or apartment complex.

2. Residential Development Standards

Citywide, outside the specific plan areas, the City regulates the type, location, density, and scale of residential development primarily through the Zoning Code. The following summarizes the City's existing residential zoning districts:

Residential Agricultural (R-A) – 1 unit per 5 acres

The R-A zone is designed to protect agricultural uses from encroachment by urban uses until residential, commercial or industrial uses in such areas become necessary or desired.

Residential Estates (R-E) – 2 units per acre

The purpose of the residential estates (R-E) zone is to provide an area to be developed exclusively for single-family dwellings in a rural setting. Provisions are made for the maintenance of limited agricultural pursuits as well as those uses necessary and incidental to single family living.

Single-Family Residential (R-1) – 7 units per acre

The purpose of the single-family residential (R-1) zone is to encourage and promote a suitable environment for family life by providing a district for the establishment of one-family, detached dwellings, exclusively.

Mobilehome Residential (R-T) – 9 units per acre

The mobilehome residential (R-T) zone is established to encourage and promote a suitable environment for family life by providing a district for one-family homes, exclusively.

Light Multiple Residential (R-2) – 15 units per acre

The light multiple residential (R-2) zone is established to provide low height, low density residential areas in close proximity to single-family residential neighborhoods.

Medium Multiple Residential (R-3) – 18 units per acre

The medium multiple residential (R-3) zone, is established to provide medium density, low-height residential areas for two, three and multifamily dwelling units.

Heavy Multiple Residential (R-4) – 24 units per acre

The heavy multiple residential (R-4) zone is established to provide an area for a suitable environment for family life for those wishing to live in apartments near the city's center.

Development standards specific to each zone district are designed to protect and promote the health, safety, and general welfare of residents as well as implement the policies of the General Plan. These standards also serve to preserve the character and integrity of existing neighborhoods. Specific residential development standards are summarized in Table 41. Generally, development standards can limit the number of units that may be constructed on a particular piece of property. These include density, minimum lot and unit sizes, height, and open space requirements. Limiting the number of units that can be constructed will increase the per-unit land costs and can, all other factors being equal, result in higher development costs that may impact housing affordability.

Table 41: Residential Development Standards

Zoning District	Maximum Building Height (ft.)	Minimum Net Lot Area (sq. ft.)	Minimum Lot Width (ft.)	Setbacks (ft.)			Maximum Lot Coverage
				Front	Rear	Side	
R-A	35	217,800	150	25	20	10	20%
R-E	35	20,000	100	25	20	10	30%
R-1	35	6,000	60	15	20	5	40%
R-T	--	4,500	55	15	5	5	60%
R-2	25	6,000	60	15	15	5	--
R-3	35	6,000	60	15	10	5	--
R-4	75	7,000	50	15	10	5	--

Source: City of Escondido Zoning Ordinance, 2011.

Setback Requirements

Setback requirements can encourage or discourage development. As seen on Table 41, the City's residential setback requirements are minimal. The City also offers adjustments to requirements (up to 25 percent) with the approval of the Community Development director. Even further reductions to setback requirements for landscaping and parking are available to affordable or senior housing proposals, pursuant to the Residential Incentive Ordinance.

Building and Parcel Requirements

Building and parcel requirements for residential development can also encourage or discourage development. While development standards are necessary in order to preserve the character of that particular zone, those that are too restrictive can increase development costs and inhibit or reduce the achievable number of permitted dwelling units.

Building and parcel requirements in the City are not overly restrictive and offer the flexibility needed to encourage development. Minimum parcel sizes vary, depending on the zone, and are minimal in the multi-family zones. Minimum unit sizes are closely tied to the minimum standards required by the State for health and safety purposes. Lot coverage and floor area ratios are high enough to have little or no constraint on development proposals. And, usable open space requirements are low and can be lowered further for affordable and senior housing development proposals. Building and parcel requirements in the Downtown area are even less restrictive than those of the single-family and multi-family zones.

Zone Changes and General Plan Amendments

Residential zone changes that propose density increases consistent with the General Plan do not require an initiative or a referendum. Pursuant to proposition S, General Plan amendments involving an increase in residential densities or change from residential to commercial or industrial require a majority vote by the people.

Proposition S specifies that General Plan amendments or specific plans cannot be adjusted without a vote of the people, if changes increase residential density, alter or increase the General

Plan's residential land use categories, or change any Rural, Estate, Suburban or Urban residential designation to a commercial or industrial designation. Thus, voter approval is required for amendments that would increase residential densities, but also deters the loss of residential land when associated with an amendment to commercial or industrial.

The General Plan update will be brought before the residents for the November 2012 ballot. The updated General Plan provides for increased residential development capacity through mixed use development, primarily along South Escondido Boulevard. Most other residential areas are expected to retain their current General Plan and zoning designations. Furthermore, Proposition S states, "Nothing in this initiative shall be construed to:

- a) Interfere with rights to obtain density bonuses or other entitlements available under affordable housing laws, or
- b) Limit right or entitlements available under affordable housing laws."

Additionally, few residential subdivisions have been denied, and current zoning allows multi-family development by right with ministerial processing only.

Parking Standards

Communities that require an especially high number of parking spaces per dwelling unit can negatively impact the feasibility of providing affordable housing by reducing the achievable number of dwelling units per acre and increasing development costs. Typically, the concern for high parking standards relates mostly to multi-family, affordable, or senior housing. The City of Escondido has one of the lowest parking requirements in San Diego County. Parking requirements for single-family and multi-family residential uses in Escondido are summarized in Table 42. In some instances, tandem spaces are permitted and in others, guest parking may be substituted with on-street parking.

Table 42: Parking Requirements

Type of Residential Development	Required Parking Spaces
Single-Family or Two-Family Residence	Two (2) car garage or carport for each unit
Second Dwelling Unit	One (1) parking space for the unit, in addition to those spaces required by this section for the primary residential use.
Multiple-Family Dwelling*	
Bachelor Unit	One (1) parking space per unit
One-Bedroom Unit	One and one-half (1 1/2) parking space per unit
Two-Bedroom Unit	One and three-quarter (1 3/4) parking space per unit
Three or More Bedrooms	Two (2) parking spaces per unit

Source: City of Escondido Zoning Ordinance, 2011.

* Guest parking must also be provided. One space is required for each four (4) units.

With the Density Bonus and Residential Incentive Ordinance, Escondido's parking requirements are reduced for affordable and senior development at the following ratios: one space/one-

bedroom unit; 1.2 spaces/two-bedroom unit, and 1.5 spaces/three-bedroom unit. These standards are lower than even the State-mandated parking standards for density bonus projects. Additionally, on-street resident parking for affordable or senior units can be substituted for required off-street parking at a ratio of one-to-one on non-Circulation Element streets. Requirements to cover spaces can also be waived.

3. Provision for a Variety of Housing Opportunities

Housing element law specifies that jurisdictions must identify adequate sites to be made available through appropriate zoning and development standards to encourage the development of a variety of housing types for all economic segments of the population. This includes single-family homes, multi-family housing, second units, mobile homes, emergency shelters, and housing for persons with disabilities. Table 43 below summarizes the various housing types permitted within the City’s zoning districts.

Table 43: Use Regulations for Residential Districts

Use	R-A	R-E	R-1	R-T	R-2	R-3	R-4
Single-Family Dwelling	P	P	P	--	P	P	P
Secondary Dwelling Unit	P	P	P	--	P	P	P
Multi-Family Dwelling	--	--	--	--	P	P	P
Mobile Home Park	C	C	C	C	C	C	C
Manufactured Housing	P	P	P	P	--	--	--
Residential Care Facility (6 or fewer)	P	P	P	P	P	P	P
Residential Care Facility (7 or more)	--	C	C	--	C	C	C
Senior Housing	--	--	--	--	C	C	C

Source: City of Escondido Zoning Code, 2011.

Single-Family Dwelling

A “single-family dwelling” is defined in the Zoning Code as a detached or semi-detached building. Single-family dwellings are permitted in all residential zones, except the R-T zone.

As part of the General Plan update, the City proposes to establish a 70 percent minimum density for each zoning district, effectively discouraging single-family homes to be developed on properties designated for multi-family uses. This change will promote the efficient use of the City’s residential land and mitigate neighborhood compatibility issues.

Secondary Dwelling Unit

Secondary dwelling units are attached or detached dwelling units that provide complete independent living facilities for one or more persons including permanent provisions for living, sleeping, cooking and sanitation. Second dwelling units may be alternative source of affordable housing for lower-income households and seniors. The passage of AB 1866 (effective July 2003) requires cities to use a ministerial process to consider accessory dwelling units in an effort to facilitate the production of affordable housing state-wide. Accessory units must be permitted in all residential zones where a primary single-family unit already exists.

The City of Escondido permits second dwelling units in the R-A, R-E, R-1, R-2, R-3 and R-4 zones on properties with only one single-family residence on the lot, subject to the approval of a second dwelling unit permit. Second dwelling units must also comply with the following development standards:

- The owner of the property must reside on the parcel on which the second dwelling unit is located.
- A maximum of one bedroom shall be permitted.
- Second dwelling units must be physically attached to the primary structure by a substantial contiguous wall and shall also have access from the primary structure.
- For lots less than 10,000 square feet, attached second dwelling units shall not exceed 500 square feet. For lots over 10,000 square feet, second dwelling units shall not exceed 640 square feet.
- The minimum permitted size of a second dwelling unit shall be defined by the Uniform Building Code and Uniform Housing Code. The minimum unit size of the residential zone shall not apply to the second dwelling unit.
- Second dwelling units shall conform to the height limits of the zone and shall be limited to one story.
- One additional off street parking space, covered or uncovered, shall be provided for a second dwelling unit, and shall not be tandem.
- The second dwelling unit shall not create a second front entrance visible from adjacent streets. Access doors and entry for the second dwelling unit shall not be oriented to the nearest adjacent property line.

Multi-Family Dwelling

According to the State Department of Finance, multiple-family housing makes up approximately 35 percent of the 2010 housing stock in Escondido. The Zoning Code provides for multi-family developments in the higher density residential zones (R-2, R-3, and R-4). The maximum density for the R-4 zone is 24 units per acre.

As part of the General Plan update, approximately 44 of 80 acres of the Urban IV designated properties will be redesignated for higher intensity (as the new Urban V), up to 45 units per acre, with a 70 percent minimum floor density.

Mobile Home Parks and Manufactured Housing

Manufactured housing and mobile homes can be an affordable housing option for low and moderate income households. According to SANDAG, there were 3,736 mobile homes in the City as of January 2010. A mobile home built after June 15, 1976, certified under the National Manufactured Home Construction and Safety Act of 1974, and built on a permanent foundation may be located in any residential zone where a conventional single-family detached dwelling is permitted subject to the same restrictions on density and to the same property development regulations. Manufactured/mobilehomes are permitted in all of the City's lower density residential zones (R-A, R-E, R-1 and R-T). The City also continues to explore ways to expand opportunities for manufactured housing to serve a wide range of income groups.

Residential Care Facilities

Residential care facilities licensed or supervised by a Federal, State, or local health/welfare agency provide 24-hour non-medical care of unrelated persons who are handicapped and in need of personal services, supervision, or assistance essential for sustaining the activities of daily living or for the protection of the individual in a family-like environment. The Community Care Facilities Act (California Health and Safety Code) and Lanterman Developmental Disabilities Services Act (California Welfare and Institution Code) require that State-licensed residential care facilities serving six or fewer persons (including foster care) be treated as a regular residential use and therefore must be permitted by right in all residential zones allowing residential uses. These facilities cannot be subject to more stringent development standards, fees, or other standards than the same type of housing single-family homes in the same district.

In 2004, the City amended the Zoning Code, in accordance with the Lanterman Developmental Disabilities Services Act of the California Welfare and Institutions Code and the Health and Safety Code. The amendment clarifies that the use of property for the care of six or fewer disabled persons is a "residential use" for the purposes of zoning. A State-authorized, certified or authorized family care home, foster home, or group home serving six or fewer disabled persons or dependent and neglected children on a 24-hour-a day basis is considered a residential use that is permitted in all residential zones. The amendment also clarifies that in Commercial and Hospital Professional zones, licensed residential care facilities serving any number of residents are permitted by right, and in residential zones, licensed residential care facilities serving more than six persons are permitted with a Conditional Use Permit.

Emergency Shelters

Senate Bill 2, enacted in October 2007, requires local governments to identify one or more zoning categories that allow emergency shelters (year-round shelters for the homeless) without discretionary review. The statute permits the City to apply limited conditions to the approval of ministerial permits for emergency shelters. The identified zone must have sufficient capacity to accommodate at least one year-round shelter and accommodate the City's share of the regional unsheltered homeless population. Escondido's share of the regional unsheltered homeless population is estimated to be 741 individuals.

The City of Escondido's Zoning Code does not explicitly address emergency shelters. The City will amend its Zoning Code within one year of adoption of the Housing Element to permit homeless shelters by right, without discretionary review, within the Hospital Professional (HP) zone, consistent with State law. The HP zone would be the most appropriate zone for emergency shelter since it allows similar uses (convalescent facilities, medical clinics) and is close to public transportation, services and retail uses. Additionally, there is sufficient land available in the HP zone that could be utilized to serve the estimated current need for emergency housing, which includes inclement weather shelter that would operate during the winter months.

Currently, there is approximately one acre of vacant land and 18 acres of redevelopable land in the HP zone. Almost all of the lots are 7,000 square feet in size which could accommodate a residence that could serve a minimum of eight individuals while meeting development standards. Most of the HP zone is also flat. Accounting for some sloping areas located at the east end of Pennsylvania, it is estimated that the vacant land alone could serve a minimum of 50 individuals and the redevelopable area (assuming a low redevelopment rate of 10 percent) could accommodate an additional 90 individuals.

In addition to locating on a vacant or redevelopable site, an emergency shelter could also locate within an existing building, in conjunction with an existing use, or replace an existing use all together. Since many of the uses are already established, it would be more likely for an emergency shelter to accompany an existing use such as a clinic or convalescent facility. In light of the amount of available sites within the HP zone, there appears to be sufficient land available to accommodate, in vacant and underutilized properties or through conversion of warehouse buildings, sufficient emergency shelter capacity for Escondido's homeless population of 741 individuals.

Transitional and Supportive Housing

California Health and Safety Code (Section 50675.2) defines "transitional housing" and "transitional housing development" as buildings configured as rental housing developments, but operated under program requirements that call for the termination of assistance and recirculation of the assisted unit to another eligible program recipient at some predetermined future point in time, which shall be no less than six months. Residents of transitional housing are usually connected to supportive services designed to assist the homeless in achieving greater economic independence and a permanent, stable living situation. Transitional housing can take several forms, including group quarters with beds, single-family homes, and multi-family apartments and typically offers case management and support services to help return people to independent living (often six months to two years).

Supportive housing links the provision of housing and social services for the homeless, people with disabilities, and a variety of other special needs populations. California Health and Safety Code (Section 50675.2) defines "supportive housing" as housing with no limit on length of stay, that is occupied by the low income adults with disabilities, and that is linked to on-site or off-site services that assist the supportive housing resident in retaining the housing, improving his or her health status, and maximizing his or her ability to live and, when possible, work in the community. Target population includes adults with low incomes having one or more disabilities,

including mental illness, HIV or AIDS, substance abuse, or other chronic health conditions, or individuals eligible for services provided under the Lanterman Developmental Disabilities Services Act (Division 4.5, commencing with Section 4500, of the Welfare and Institutions Code) and may, among other populations, include families with children, elderly persons, young adults aging out of the foster care system, individuals exiting from institutional settings, veterans, or homeless people.

The current Escondido Zoning Code makes provisions for transitional and permanent supportive housing. Transitional and supportive housing, with on-site services, are similar to and have been classified with the same land use code as licensed residential care facilities. They are permitted by right in the General Commercial and the Hospital Professional zones, and with a Conditional Use Permit in all residential zones. Facilities with six or fewer residents are also permitted by right in all residential zones. In just the residential zone alone, there are also over 3,000 acres of residential land that is either vacant or redevelopable in the City. Additionally, where no on-site services are involved, uses are permitted by right in apartments and single-family homes in all residential zones.

The Zoning Code will be amended to differentiate transitional/supportive housing that is operated as group quarters versus that is operated a regular housing development. For transitional/supportive housing facilities that operate as group quarters, such facilities will be permitted as residential care facilities. Potential conditions for approval of large residential care facilities (for more than six persons) as transitional/supportive housing may include hours of operation, security, loading requirements, noise regulations, and restrictions on loitering. Conditions would be similar to those for other similar uses and would not serve to constrain the development of such facilities. For transitional/supportive housing facilities that operate as regular housing developments, such uses will be permitted by right where housing is otherwise permitted (regardless of size or presence on-site services).

Senior Housing

Currently, the Zoning Code conditionally permits senior housing (for persons aged 55 or over) in R2, R3, and R4 zones. The Zoning Code will be amended to provide specific standards (such as parking requirements and minimum unit size) appropriate to the use. However, senior housing as a use will be permitted as regular housing where housing is allowed in the City.

Single Room Occupancy Units (SROs)

SRO units are one-room units intended for occupancy by a single individual. They are distinct from a studio or efficiency unit, in that a studio is a one-room unit that must contain a kitchen and bathroom. Although SRO units are not required to have a kitchen or bathroom, many SROs have one or the other and could be equivalent to an efficiency unit. The South Escondido Boulevard Neighborhood Plan provides transient lodging as a conditionally permitted use whereby the average length of stay exceeds 30 days.

Farm Worker Housing

Pursuant to the State Employee Housing Act (Section 17000 of the Health and Safety Code), employee housing for agricultural workers consisting of no more than 36 beds in a group quarters or 12 units or spaces designed for use by a single-family or household is permitted by right in an agricultural land use designation. Therefore, for properties that permit agricultural uses by right, a local jurisdiction may not treat employee housing that meets the above criteria any differently than an agricultural use. Furthermore, any employee housing providing accommodations for six or fewer employees shall be deemed a single-family structure within a residential land use designation, according to the Employee Housing Act. Employee housing for six or fewer persons is permitted wherever a single-family residence is permitted. To comply with State law no conditional use permit or variance will be required.

The City's Zoning Code allows, as a permitted use in agricultural and estate residential zones (RA and RE), living quarters for persons employed on the premises in conjunction with authorized agricultural uses. Dwellings serving six or fewer employees are considered single-family dwellings and those serving more than six are still permitted by right and would also not operate for a profit.

In addition to housing farm workers on the work-site, affordable housing is available for permanent farm workers in multi-family zones. For example, the City completed the development of eight units for farm workers as part of a 24-unit affordable housing complex for low-income households. The project is located at 1801 – 1821 South Escondido Boulevard and is called Eucalyptus View Cooperative Apartments.

Housing for Persons with Disabilities

Both the federal Fair Housing Amendment Act (FHAA) and the California Fair Employment and Housing Act direct local governments to make reasonable accommodations (that is, modifications or exceptions) in their zoning laws and other land use regulations when such accommodations may be necessary to afford disabled persons an equal opportunity to use and enjoy a dwelling. The City conducted an analysis of the zoning ordinance, permitting procedures, development standards, and building codes to identify potential constraints for housing for persons with disabilities. The City's policies and regulations regarding housing for persons with disabilities are described below.

Land Use Controls

Under State Lanterman Developmental Disabilities Services Act (also known as the Lanterman Act), small licensed residential care facilities for six or fewer persons must be treated as regular residential uses and permitted by right in all residential districts. In accordance with State law (Lanterman Developmental Disability Services Act, AB 846, compiled of divisions 4.1, 4.2 and 4.7 of the Welfare and Institutions Code and Title 14 of the Government Code), Escondido allows residential care facilities serving six or fewer persons within all residential zones. Residential care facilities serving more than six persons are conditionally permitted in all residential zones. The City does not have a local requirement for proximity between two special needs housing sites.

The City's Zoning Code provides for transitional/supportive housing as residential care facilities only. The Zoning Code will be amended to address the provision of these housing types pursuant to State laws (see discussions above).

Definition of Family

Local governments may restrict access to housing for households failing to qualify as a "family" by the definition specified in the Zoning Code. Specifically, a restrictive definition of "family" that limits the number of and differentiates between related and unrelated individuals living together may illegally limit the development and siting of group homes for persons with disabilities, but not for housing families that are similarly sized or situated.

The City of Escondido Zoning Code defines a "family" as "one or more persons related by blood, marriage, or adoption, or a group including unrelated individuals living together as a relatively permanent, bona fide, housekeeping unit." The City's definition of family does not restrict access to housing.

Building Codes

The Building and Safety Division actively enforces the California Building Code provisions that regulate the access and adaptability of buildings to accommodate persons with disabilities. No unique restrictions are in place that would constrain the development of housing for persons with disabilities. Government Code Section 12955.1 requires that 10 percent of the total dwelling units in multi-family buildings without elevators consisting of three or more rental units or four or more condominium units subject to the following building standards for persons with disabilities:

- The primary entry to the dwelling unit shall be on an accessible route unless exempted by site impracticality tests.
- At least one powder room or bathroom shall be located on the primary entry level served by an accessible route.
- All rooms or spaces located on the primary entry level shall be served by an accessible route. Rooms and spaces located on the primary entry level and subject to this chapter may include but are not limited to kitchens, powder rooms, bathrooms, living rooms, bedrooms, or hallways.
- Common use areas shall be accessible.
- If common tenant parking is provided, accessible parking spaces is required.

Reasonable Accommodation

Both the Federal Fair Housing Act and the California Fair Employment and Housing Act direct local governments to make reasonable accommodations (i.e. modifications or exceptions) in their zoning laws and other land use regulations when such accommodations may be necessary to afford disabled persons an equal opportunity to use and enjoy a dwelling. For example, it may be reasonable to accommodate requests from persons with disabilities to waive a setback requirement or other standard of the Zoning Ordinance to ensure that homes are accessible for the mobility impaired. Whether a particular modification is reasonable depends on the circumstances.

The City adopted an amendment to the Zoning Code establishing a formal reasonable accommodations procedure in 2001. The Zoning Code gives authority to the Director of Planning and Building (or his/her designee) to make decisions regarding reasonable accommodation requests. There is no fee imposed on the request for reasonable accommodation. However, if the project for which the request is being made also requires some other planning permit or approval, then the applicant must file the request together and submit the required fees associated with the related permits.

In determining the reasonableness of a requested accommodation, the Director will consider the following factors:

- Whether the housing which is the subject of the request for reasonable accommodation will be used by an individual protected under the Acts;
- Whether fulfillment of the request is necessary to make specific housing available to an individual protected under the Acts;
- Whether the accommodation will impose an unreasonable financial or administrative burden on the City;
- Whether the accommodation will require a fundamental alteration of the zoning or building laws, policies and/or procedures of the City;
- Whether the accommodation will have any potential impact on surrounding uses;
- Physical attributes of the property and structures; and
- Any other factor deemed relevant to the determination according to the Acts, as amended.

Permits and Processing

A request for a retrofit of property to increase accessibility would be handled through the building permit process, if the retrofit is of a nature to be governed by the building code. Group homes, with fewer than six persons, are permitted by right in the residential zones. Modifications to the structure would be made through the building permit process, if the modifications proposed are under building code jurisdiction.

Depending on the zone classification of the property, a group home for more than six persons requires either a plot plan or a Conditional Use Permit. There is no standard list of conditions; each site would be reviewed and conditions assigned based on the specifics of the site and proposed project. A plot plan does not require a public hearing. A Conditional Use Permit requires a public hearing in front of the Planning Commission.

Conclusion

The City will amend the Zoning Code to address the provision of transitional and supportive housing. The City does not have any other policies or regulations that may constrain the development of housing for persons with disabilities.

4. Development and Planning Fees

Residential developers are subject to a variety of fees and exactions to process permits and provide necessary services and facilities as allowed by State law. In general, these development fees can be a constraint to the maintenance, improvement, and development of housing because the additional cost borne by developers contributes to overall increased housing unit cost. However, the fees are necessary to maintain adequate planning services and other public services and facilities in the City. These fees have not been found to act as a constraint to the development of housing in Escondido.

Planning processing costs are covered in part by applicant fees. Approximately a third of actual costs are recovered in processing fees. Development impact fees are charged to a new development to pay for the local infrastructure needed to serve it. Within the San Diego region, all 18 of the local jurisdictions and the County charge development impact fees. Impact fees can be charged for a variety of public facilities, including utilities, parks, open space, fire stations, libraries, and transportation improvements such as streets, highways, and transit.

Development impact fees enable the City to shift at least part of the capital-financing burden to new development, and synchronize new development with the installation of these new public facilities. Escondido's impact fees fall within the average when compared to those of the other jurisdictions. Additionally, the City conducts a periodic review of the fees to insure they reflect the current impacts and necessary improvements for the standard level of service. To facilitate residential development in the Downtown area, the City charges reduced impact fees in the Downtown area.

Table 44 summarizes the most common planning and development impact fees for the City of Escondido and other North County cities. In general, the City's fees are comparable to developments in other North San Diego communities.

Table 44: Regional Comparison of Planning and Development Fees (2011)

	Escondido	Encinitas	Carlsbad	Oceanside	Solana Beach
Planning Fees					
Design Review/ Development Review	\$450-\$985	\$1,000-\$4,800	n.a.	\$4,838-\$6,435	\$3,030- \$10,000
Major Use Permit/ Conditional Use Permit	\$3,375	\$6,000	\$4,162	\$4,503	\$9,300
Minor Use Permit	\$1,550	\$1,600	\$697	\$3,152	\$2,327
Tentative Parcel Map	\$1,825	\$3,500	\$3,531	\$3,089	n.a.
Plan Check	65% of Building Permit Fee	\$50-\$1,500	65% of Building Permit Fee	n.a.	n.a.
Final Parcel Map	\$410	\$1,600	\$3,115	n.a.	n.a.
Tentative Subdivision Map	\$2,840-\$4,705	\$10,000	\$7,647- \$15,283	Deposit Account	\$8,674- \$10,858

Table 44: Regional Comparison of Planning and Development Fees (2011)

	Escondido	Encinitas	Carlsbad	Oceanside	Solana Beach
Final Subdivision Map	\$995	\$2,000	\$6,939	n.a.	\$4,002-\$5,777
Variance	\$1,320-\$1,455	\$1,200-\$3,200	\$2,624	\$4,000	\$2,163
Environmental Review-Initial Study	\$1,710	\$4,200	n.a.	Deposit Account	\$291 plus cost
General Plan Amendment	\$3,590-\$6,720	\$13,000-\$20,000	\$3,962-\$5,714	\$9,234	\$10,000
Impact/Capacity Fees					
Parks and Recreation Fee	\$1,098/unit ¹	\$5,423-\$9,220/unit	\$3,696-\$7,649/unit	\$3,503/unit	\$600/unit
Community/Public Facilities Fee	\$1,582/unit ¹	\$387-\$571/unit	n.a.	\$2,072/unit	1% of valuation
Traffic Impact Fee	\$2,931/unit ² (\$425-\$850 City fee)	n.a.	\$1,372-\$2,286/unit	n.a.	n.a.
Public Art Fee	\$0.15/sf (2,000 sf exempt) ¹ \$0.30/sf (1,800 sf exempt)	n.a.	n.a.	n.a.	0.5% of valuation
Sewer Connection Fee	\$3,750-\$7,500	n.a.	n.a.	n.a.	n.a.
Water Connection Fee	\$2,340-\$7,930/unit	n.a.	n.a.	\$4,597/unit	n.a.
Drainage Fee	\$363 ¹	n.a.	n.a.	n.a.	n.a.

Notes:

1. These are reduced fees for the downtown area in order to encourage residential uses in the Downtown area. Drainage fee is \$1,071 for single-family unit and \$428 for multi-family unit elsewhere.
2. The traffic fee of \$2,931 includes a regional traffic fee (RTCIP) from which very low, low, and moderate income housing units are exempt. City traffic fee is only \$425-\$850.

Source: Cities of Escondido, Encinitas, Carlsbad, Oceanside and Solana Beach, 2011.

Development fees vary depending on housing type and the location of the project. However, generally, a developer can expect to pay \$39,860 in total fees (including planning and development impact fees) for a typical single-family dwelling unit. For a condominium project, fees total approximately \$25,198 per unit, and for a multi-family project, fees total approximately \$24,247 per unit. Based on the proformas for two affordable housing projects – Juniper Senior Village and The Crossings – planning and development impact fees constitute three and ten percent of the total development costs (including land cost).

5. On- and Off-Site Improvements

Infrastructure is already in place in multi-family areas. Service levels and improvement standards are comparable to other cities in the County. For traffic, the City strives to achieve a

Standard Level of Service (LOS) “C” which describes the acceptable volume to capacity ratio. The City also allows the level to drop down to a mid Level of Service “D” without requiring an environmental impact report.

Development standards vary depending on the land use pattern in the area. Street width requirements (curb to curb) are 36 feet for public and 28 feet for private residential streets, 42 for local collectors, 64 for collectors and 82 for major roads. Full curb and gutter are required, with the standard five-foot wide sidewalk per ADA requirements.

Water and sewer capacity must be adequate to meet normal and emergency situations with a water capacity to provide a minimum of 600 gallons of water per day per household and a sewage capacity to treat a minimum of 250 gallons per day for each residence. The City is also required to comply to NPDES (National Pollution Discharge Elimination System) storm water standards with structural and non-structural methods, such as the use of detention basins, catch basin and filters, and drains.

Requirements for on- and off-site improvements vary depending on the presence of existing improvements, as well as the size and nature of the proposed development. In general, the City requires the following improvements and facilities for new developments:

- *Grade Improvements.* The City requires subdividers to grade and improve all land dedicated or to be dedicated for streets or easements, bicycle ways and all private streets and private easements laid out on a Final Map or Parcel Map in such manner and with such improvements as are necessary in accordance with the Escondido City standards.
- *Sewers.* The City requires subdividers to install sewers or sewage disposal systems in accordance with the Private Sewage Disposal Systems ordinance.
- *Water Supply.* The City requires subdividers to provide proof satisfactory to the City Engineer that there exists an adequate potable water supply available to each lot or parcel and that the subdivider will install or agree to install water supply facilities to the satisfaction of the City Engineer provided that the City Engineer may require such other system or size of water supply pipe as recommended by the water facility serving the subdivision.
- *Fire hydrants.* The City requires subdividers to install as required by the City Engineer, fire hydrants and connections, which hydrants and connections shall be of a type approved by the Escondido Fire Chief.
- *Public Sewer system.* When the City Engineer determines that, by reason of the size and shape of the proposed lots, the nature of the terrain to be subdivided, the soil condition of the lots and the development of the area in the vicinity of the proposed subdivision, a public sewer system serving the lots will be required to preserve the public health, or if there is a public sewer main within two hundred (200) feet of the property boundary, the subdivider shall be required to install or agree to install a

public sewer system serving said lots as a condition precedent to the approval of any Final or Parcel Map.

- *Undergrounding Utilities.* All new and existing utilities distribution facilities, including cable television lines and other communication facilities within the boundaries of any new subdivision or within any property abutting a proposed new subdivision, shall be placed underground pursuant to the requirements of Escondido Municipal Code.
- *Flood Control.* The subdivider is required to install all flood control and drainage improvements in conformance with the drainage policies of the General Plan, the Drainage Master Plan, the Engineering Division Policy for Drainage Studies, and City design standards.
- *Street Trees.* The subdivider is required to install street trees as required by Escondido City standards pursuant to the landscape standards of the Zoning Code.
- *Traffic Control Signals.* The subdivider is required to install such traffic control signals as may be required by the City Engineer, Planning Commission or City Council.

6. Building Codes and Enforcement

The City of Escondido has adopted the 2010 California Building Code. The City has also adopted the 2010 Green Building Standards Code. No amendments have been made that diminish the ability to accommodate persons with disabilities. There are no locally amended universal design elements; the universal design provisions of the California Building Code are enforced. Exceptions or methods of alternative compliance to the requirements of the California Building Code are contained in the code. The City has no local ability to waive the provisions of the State building codes. However, a mechanism within the building code allows for an appeals process to challenge interpretations of the building code requirements.

7. Local Permits and Processing Times

The processing time needed to obtain development permits and required approvals is commonly cited by the development community as a prime contributor to the high cost of housing. Depending on the magnitude and complexity of the development proposal, the time that elapses from application submittal to project approval may vary considerably. Factors that can affect the length of development review on a proposed project include: completeness of the development application submittal, responsiveness of developers to staff comments and requests for information, and projects that are not exempt from the California Environmental Quality Act (CEQA), require rezoning or general plan amendment, or are subject to a public hearing before the Planning Commission or City Council.

Certainty and consistency in permit processing procedures and reasonable processing times is important to ensure that the development review/approval process does not discourage

developers of housing or add excessive costs (including carrying costs on property) that would make the project economically infeasible. The City is committed to maintaining comparatively short processing times. Total processing times vary by project, but most residential projects are approved in six months to two years. Table 45 provides a detailed summary of the typical processing procedures and timelines of various types of projects in the City.

Table 45: Processing Time by Development Type

Project Type	Reviewing Body	Public Hearing Required	Appeal Body (if any)	Estimated Total Processing Time
Single-Family Subdivision	Planning Commission	Yes	City Council	3-5 months
Multiple-Family	Staff/ Administrative	No	Planning Commission	12-20 weeks
Multiple-Family (with subdivisions)	Planning Commission and City Council	Yes	None	4-6 months
Mixed Use	Planning Commission and City Council	Yes	None	4-6 months

For apartment projects, processing periods normally require an administrative review and take approximately 12 to 20 weeks from the time of submittal of a complete application to the time of construction. Below are the required steps:

- 1) Submit Plot Plan Application
- 2) Environmental and Plot Plan Review
- 3) Design Review Board
- 4) Submit Construction Plans for Building and Grading Permits
- 5) Resubmit Construction Plans as needed.
- 6) Permits Issued

Other residential development proposals require either administrative, Planning Commission, or City Council approval as shown below:

- **Administrative Approval** - Staff review – up to 10 weeks
 - Lot Line Adjustments
 - Certificate of Compliances
 - Parcel Maps
 - Administrative Adjustments
 - Second Dwelling Units
- **Planning Commission Approval** - Up to 16 weeks
 - Conditional Use Permits (for easement access)
 - Grading Exemptions (for grading exceeding requirements)
 - Precise Development Plans
 - Tentative Subdivision Maps

- Variances
- **City Council Approval/with Planning Commission Recommendation** - Up to 10-20 weeks including environmental review
 - Zone Changes (rezones and prezones)
 - General Plan Amendments
 - Extensions of Time for Tentative Subdivision Maps
 - Planned Developments
 - Specific Plans
 - Condominium Permits
 - Habitat Loss Permits
 - Development Agreements

The processing time for the most common residential development applications are summarized in Table 46. These applications are often processed concurrently. The City continues to explore ways to streamline the processing of applications and reduce fees for redevelopment/rehabilitation of affordable, fair market and mixed use housing. The City also explores ways to encourage development of housing for middle- and high-income households in order to promote a balanced community. Specifically, the City is in the process of evaluating ways to streamline processes and processing times. One of the possible improvements is to consolidate the Design Review Board into the Planning Commission. In so doing, the City will eliminate one step in the review process, thereby shortening the timeframe of review.

Table 46: Processing Time by Process/Permit

Process/Application	Time
Conditional Use Permit	3-5 months
Design Review	2-4 weeks
General Plan Amendment	4-6 months if no public vote is needed, i.e. Proposition S
Environmental Impact Reports	9-12 months
Plan Check/ Building Permits	15-20 working days for plan check. Permit issuance depends on how many plan checks are needed and how fast architect responds to corrections
Variance	3-5 months
Zone Change	4-6 months

Source: City of Escondido Planning Department, 2011.

Design Review

The design review process is regulated by Municipal Code Chapter 33, Article 64. The purpose of design review is to preserve the natural charm, integrity and quality of the built environment, by regulating the design and appearance of development in order to insure compatibility with existing development and ensure that new development is consistent with or exceeds the high quality of the development projects currently located in the City.

The reviewing body for this process consists of a seven-member board (DRB) made up of residents of the City, or individuals having a business in the City. The DRB includes licensed

design professionals, with emphasis on architects and landscape architects, and non-licensed persons from related professions. At least one board member is knowledgeable in the area of historic preservation. The DRB reviews all multi-family residential projects, planned development projects, condominium permits, and all non-single-family projects requiring discretionary approval by the planning commission and involving new construction.

In making their determinations, the DRB takes the following into account: site development, circulation, grading, setbacks, exterior appearance of buildings, structures, signs, lighting, street furniture, landscaping and other outdoor appurtenances. The review of plans is done either by City staff or the DRB at regularly scheduled DRB meetings, which occur twice a month. For discretionary projects which require a public hearing, the DRB submits its recommendations to the Planning Commission and/or City Council. The Planning Commission and/or City Council will then consider the DRB's report in making its decision. For administrative projects that require DRB review, the DRB submits its recommendations to the Planning Director. In order to gain approval, the design review regulations require that the reviewing authority make the following findings:

- The proposed site plan has been designed in a manner which is compatible with the natural and urban characteristics of the site and the surrounding neighborhood.
- The bulk, scale, and architectural design of the proposed structure is compatible with the character of the surrounding neighborhood.
- The project incorporates landscaping, irrigation and screening which is drought tolerant, appropriate for the site, and in compliance with the landscape standards established by the City.
- All grading related to the project is in conformance to design standards set by Article 55 (grading and erosion control).
- The project has incorporated the applicable design review standards contained in the Zoning Code and other applicable ordinances into the site layout and building design.
- The project is consistent with the goals and objectives on the General Plan.

These findings are reasonable and do not constrain housing development in the City. Typical revisions required by the DRB include: changes to landscape materials; building elevation details/enhancements/articulation; changes to colors; and minor site plan adjustments. Usually, these changes can be accommodated without increasing the costs of development.

Decisions of the Director may be appealed to the Planning Commission by filing a written request to the Planning Division not more than ten days following the final decision of the Director. Decisions of the Planning Commission may be appealed to the Planning Commission.

Conditional Use Permit

A conditional use permit is a zoning instrument used primarily to review the location, site development or conduct of certain land uses. These are uses which generally have a distinct impact on the area in which they are located, or are capable of creating special problems for bordering properties unless given special attention. The Planning Commission has the authority

to grant, conditionally grant or deny a conditional use permit application, with one exception: The decision on whether or not to issue a conditional use permit for residential care facilities for the handicapped lies with the Director of Planning and Building.

In order to be approved, the Planning Commission must make the following findings:

- A conditional use permit will be granted upon sound principles of land use and in response to services required by the community;
- A conditional use permit will not be granted if it will cause deterioration of bordering land uses or create special problems for the area in which it is located.
- A conditional use permit must be considered in relationship to its effect on the community or neighborhood plan for the area in which it is to be located.

Appeals to any Planning Commission decision can be made to the City Council. Most residential uses are permitted by right in residential zones. Therefore the CUP process does not serve to constrain housing development.

C. Environmental and Infrastructure Constraints

A community's environmental setting affects the feasibility and cost of developing housing. Environmental issues range from the availability of water to the suitability of land for development due to potential exposure to seismic, flooding, wildfire and other hazards. If not properly recognized and accommodated in residential design, these environmental features could potentially endanger lives and property. This section summarizes these potential constraints on residential development in Escondido.

1. Soil, Steep Slopes, and Seismic Safety

Regulation of development in areas of steep slopes is directly related to public safety and health, as the degree of slope is related to flood control problems, erosion control, landslides, and fire hazard. These problems become particularly acute on slopes greater than 25 percent. Accordingly, many communities, including the County, map slopes greater than 25 percent, recognizing them as potentially hazardous areas. Similarly, many of the soil compositions that comprise the Escondido Planning Area present difficulties for development in that they cannot support roadways or foundations, are unacceptable for septic systems, and are highly erodible.

The historical seismicity of the San Diego region is low compared to the rest of Southern California. This may be due to San Diego being on a more stable block or it may only be a reflection of a period of historical record which is too short to be meaningful. San Diego County has experienced strong shaking and damage from several earthquakes, but none of the recent ones have been particularly destructive.

All of the faults which could affect San Diego County are part of the San Andreas system of faults. The portion of California west of San Andreas fault is part of the Pacific plate and is moving north with respect to the rest of the continent which is part of the North American plate. This movement is distributed among several faults in addition to the main San Andreas fault. In

and near San Diego County these other faults include the San Jacinto, Coyote Creek, Earthquake Valley, Agua Caliente, Elsinore, Rose Canyon, San Miguel (Mexico), Agua Blanca (Mexico), and Coronado Banks (off shore).

The largest fault in the San Diego region, the San Andreas fault, is at least 800 miles long and is located 27 miles east of Borrego in the Coachella Valley. There is increasing concern that the 85 mile section from north of San Bernardino to the Salton Sea is overdue to rupture, having been "locked" for the last 200 years. Such an event could cause an 8.3 magnitude earthquake - the size of the 1906 San Francisco quake. An 8.3 event on the San Andreas would subject San Diego County of shaking of intensity VII to VIII, enough to cause considerable damage.

East of San Diego the closest active fault is the Elsinore. It passes through the town of Elsinore, along the south side of Palomar Mountain, through Lake Henshaw, Santa Ysabel Indian Reservation, down Banner Canyon east of Julian, and out in the desert near Vallecitos. The Elsinore fault apparently joins the Laguna Salada fault on the east side of the Sierra Cocopah in Baja California. The Elsinore fault is probably capable of generating an earthquake of magnitude 7.4. Depending upon which segment moved, considerable damage might occur in Escondido, Ramona, Julian, Borrego, and Jacumba. Portions of all of the roads to the east would probably be temporarily closed by landslides.

The Community Protection and Safety Element of the City's General Plan includes goals, policies, and actions that are designed to reduce the risks of hazards related to soil, steep slopes, and seismic activity, such as the strict enforcement of standards from the Uniform Building Code and the requiring of specific geotechnical reports.

2. Flood Hazards

There are sections of the City that would be subject to inundation in the event of a 100-year storm. These areas include northern portions of Reidy Creek north of Rincon Avenue, an area alongside Escondido Creek west of Hale Avenue, along Kit Carson Park Creek north of Via Rancho Parkway, an area straddling Midway Drive north of the Escondido Channel, and an area straddling Valley Parkway between Ash and Citrus.

The Community Protection Element of the City's General Plan includes policies to designate appropriate land uses to minimize flood related damages and to ensure proper creek and channel maintenance to ensure their water-carrying capacity.

3. Hazardous Materials

Hazardous materials represent a potential threat to those who are working with the materials and those who could be affected by its improper or accidental disposal. The cleanup of hazardous wastes from the past and the handling and disposal of newly generated wastes will affect people many generations from now. Site contamination may impair the City's ability to implement this Plan by increasing the costs of development, requiring certain land use restrictions, and causing delays while necessary cleanups are implemented. The policies presented in the Community

Protection Element of the City's General Plan are intended to protect the public from existing and future hazardous contamination problems.

4. Ridgeline and Hillside Conservation

One of the characteristics that distinguishes Escondido from other communities in the region is its location in a series of valleys which are surrounded by visually distinctive hillsides and ridgelines. The ridges and varied topography have been identified by residents as one of Escondido's most important assets – one that has helped create a distinct identity for the City. To protect these assets, the City outlined a series of policies in its Resource Conservation Element that are geared toward controlling development on the hillsides and along the ridgelines.

5. Water Supply

Water supply for the City stems primarily from two sources: local water, derived from precipitation, and stored in Lakes Henshaw and Wohlford, and imported water transmitted by the San Diego County Water Authority. A master plan, administered by the City ensures the adequacy of these facilities to meet the demands imposed by development projected over the General Plan horizon. Continued urban development will place increasing demands on these supplies. Potential limitations on the availability of supplies require the need to combine long-term planning for water supply with long-term planning for community development in Escondido.

Concurrent with the General Plan update, the City also initiated an update to its water master plan to ensure adequate water supply and distribution facilities to serve the projected buildout population of the updated General Plan.

6. Wastewater Capacity

Escondido's wastewater is treated at the Hale Avenue wastewater treatment plant, conveyed over land, and discharged through an ocean outfall. A Master Plan, administered by the City, ensures the adequacy of these facilities to meet the demands imposed by development projected over the General Plan horizon. Significantly, the availability of sewer service distinguishes between urban development and rural development. Thus, the extension of services and the availability of capacity will influence how much and where Escondido grows.

Concurrent with the General Plan update, the City also initiated an update to its sewer master plan to ensure adequate sewage treatment capacity to serve the projected buildout population of the updated General Plan.

IV. Housing Resources

This section analyses the resources available for the development, rehabilitation, and preservation of housing in Escondido. This analysis includes an evaluation of the availability of land resources for future housing development, the City's ability to satisfy its share of the region's future housing needs, the financial resources available to support housing activities, and the administrative resources available to assist in implementing the City's housing programs and policies.

A. Future Housing Needs

1. Regional Housing Needs Allocation (RHNA)

Future housing need refers to the share of the regional housing need that has been allocated to the City of Escondido. The State Department of Housing and Community Development (HCD) supplies a regional housing goal number to the San Diego Association of Governments (SANDAG). SANDAG is then mandated to allocate the housing goal to city and county jurisdictions in the region. In allocating the region's future housing needs to jurisdictions, SANDAG is required to take the following factors into consideration pursuant to Section 65584 of the State Government Code:

- Market demand for housing;
- Employment opportunities;
- Availability of suitable sites and public facilities;
- Commuting patterns;
- Type and tenure of housing;
- Loss of units in assisted housing developments;
- Over-concentration of lower income households; and
- Geological and topographical constraints.

SANDAG anticipates adopting its Regional Housing Needs Allocation (RHNA) in July 2011. This RHNA covers an 11-year planning period (January 2010 through December 2020) and addresses housing issues that are related to future growth in the region. The RHNA allocates to each city and county a "fair share" of the region's projected housing needs by household income group. The major goal of the RHNA is to assure a fair distribution of housing among cities and counties within the San Diego region, so that every community provides an opportunity for a mix of housing for all economic segments. The housing allocation targets are not building requirements, but goals for each community to accommodate through appropriate planning policies and land use regulations. Allocation targets are intended to assure that adequate sites and zoning are made available to address anticipated housing demand during the planning period.

The City of Escondido's share of regional future housing needs is a total of 4,175 new units for the January 1, 2010 to December 31, 2020 period. This allocation is distributed into various income categories, as shown Table 47. The RHNA includes a fair share adjustment which

allocates future (construction) need by each income category in a way that meets the State mandate to reduce the over-concentration of lower income households in one community.

Table 47: Housing Needs for 2013-2020

Income Category (% of County AMI)	Number of Units	Percent
Extremely Low (30% or less) ¹	460	11.0%
Very Low (31 to 50%) ¹	582	13.9%
Low (51 to 80%)	791	19.0%
Moderate (81% to 120%)	733	17.6%
Above Moderate (Over 120%)	1,609	38.5%
Total	4,175	1.0%

Note:

1. Pursuant to AB 2634, local jurisdictions are also required to project the housing needs of extremely low income households (0-30% AMI). In estimating the number of extremely low income households, a jurisdiction can use 50% of the very low income allocation or apportion the very low income figure based on Census data. As shown in Table 11, extremely low income households constitute 44.1% of the very low income group. Therefore, the City's RHNA of 1,042 very low income units can be split between 44.1% extremely low and 55.9% very low income units.
2. Total numbers may not add up due to rounding; however, the number of housing units required at each income level is fixed.

Source: Final Regional Housing Needs Allocation, SANDAG, 2011.

2. Credits toward RHNA

The RHNA for this Housing Element cycle covers an 11-year planning period (January 1, 2010 through December 31, 2020). Housing units developed, under construction, or approved can be credited against this RHNA. Table 48 summarizes the units that can be credited against the City's RHNA. The majority of these units were achieved through recycling of existing lower intensity uses in the Downtown Specific Plan area.

Units Constructed

Since January 1, 2010, 181 new units have been constructed in Escondido, including the 61-unit Juniper Senior Village and 120 market-rate units. Juniper Senior Village consists of 51 housing units affordable to extremely low and very low income households, nine units affordable to low income households, and one manager's unit. Juniper Senior Village is funded with Low Income Housing Tax Credits, redevelopment housing set-aside, and other affordable housing funds and therefore, required to be deed restricted as long-term affordable housing. The project was completed in 2010 and available for occupation in December 2010. The remaining new units added to the City's housing stock are market-rate units affordable primarily to above moderate income households.

Units under Construction

An affordable housing project – 55-unit The Crossings – is under construction as of the writing of this Housing Element (June 2011). The Crossings includes six units affordable to extremely low income household, 33 units to very low income households, 15 units to low income

households, and one manager’s unit. The Crossings is funded with Low Income Housing Tax Credits and therefore required to be deed restricted as long-term affordable housing. Several market-rate housing projects were under construction as of the writing of this Housing Element.

Units Approved

In addition, the City has approved several market-rate housing projects. These projects total 209 units.

Table 48: Credits Toward the RHNA (since January 1, 2010)

	Extremely Low/ Very Low 0-50% AMI	Low 51-80% AMI	Moderate 81-120% AMI	Above Moderate > 120% AMI	Total
Units Completed					
Juniper Senior Housing	51	9	1	--	61
Market-Rate Units	--	--	--	120	120
Units Under Construction					
The Crossings	39	15	1	--	55
City Plaza	--	--	--	55	55
Venue	--	--	--	82	82
City Square ¹	--	--	--	84	84
Paramount ²	--	--	--	112	112
Units Approved					
Lumina Project	--	--	--	64	64
424 N. Juniper Street	--	--	--	20	20
456 Escondido Blvd.	--	--	--	125	125
Total	90	24	2	662	778
RHNA	1,042	791	733	1,609	4,175
Remaining RHNA	952	767	731	947	3,397

Notes:

1. City Square has a total of 102 units, including 18 existing units to remain.
2. Paramount has a total of 116 units, including 4 existing units to remain.



Projects under construction (from left to right): 55-unit City Plaza; 18 existing units to remain at the new 102-unit City Square project; and 82-unit Venue.



Projects under construction or approved (from left to right): 112-unit Paramount project; 64-unit Lumina; and 20-unit at 424 N. Juniper Street. The Juniper project illustrates the trend of recycling lower intensity uses into higher density multi-family development in the Downtown area.

B. Residential Development Potential

The Housing Element must demonstrate the City’s ability in accommodating the RHNA either through production or the availability of capacity for growth. Much of the City’s future residential growth is expected to occur in the Downtown Specific Plan and South Escondido Boulevard Area Plan areas, although opportunities for lower density residential development are also available throughout the City. The following discussions summarize the City’s residential development capacity. A detailed sites inventory is provided at the end of this document.

1. Downtown Specific Plan Area

Downtown Escondido is envisioned as a dynamic, attractive, an economically vital city center providing social, cultural, economic, and residential focus while respecting its historic character. The Downtown Specific Plan seeks to promote higher residential densities in key locations that will support Downtown retail, employment, and cultural uses. The Downtown Specific Plan Area (SPA) encompasses approximately 460 acres extending from I-15 and West Valley Parkway to Palomar Hospital, between Washington and Fifth Avenues.

The City identified a number of properties within the Specific Plan area where the conditions of existing uses are conducive to redevelopment in the future. Such conditions include large parking areas, older buildings, marginally operating businesses, nonconforming uses, and capacity for additional units. GIS analysis, staff knowledge, and field checks were used to identify and refine the sites selected. Overall, these properties in the Downtown Area can accommodate 3,205 new units. This estimate is based on a density factor at 33.75 units per acre (i.e., at 75 percent of the maximum allowable density of 45 units per acre). Most recently constructed projects or projects under construction in the Downtown area realized densities that are at least 70 percent of the maximum allowable density: 424 N. Juniper Street (32.7 units per acre); 456 Escondido Boulevard (45.6 units per acre); City Plaza (68.8 units per acre); and Venue (70.7 units per acre).

Table 49: Residential Capacity in Downtown Escondido Specific Plan Area

Zoning	Maximum Density	Potential Density	Number of Parcels	Total Acres	Potential Units
Vacant	45.0	32.5	15	2.53	79
Underutilized	45.0	32.5	436	104.09	3,126
Total	--	--	451	106.62	3,205

Existing Conditions and Recycling Trends

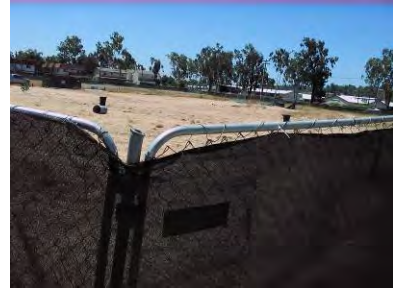
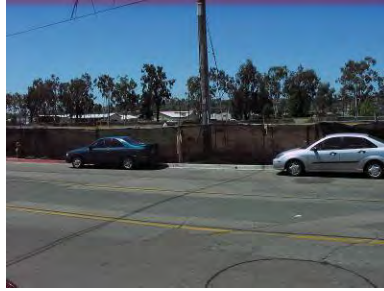
Downtown Escondido is characterized by a variety of underutilized, small-scale commercial development and low-intensity residential uses. In 1992, the City identified Downtown Escondido as an area in need of concentrated revitalization efforts and adopted the Downtown Revitalization Area Specific Plan. The Plan has undergone several revisions and in between 2003 and 2005, the City and the Downtown Business Association co-sponsored “At Home Downtown” community workshops to discuss the merits of increasing residential densities within Downtown.

Through the incentives and flexibility offered by the Downtown Specific Plan, the City has experienced a steady pace of redevelopment activities in the area, recycling from aging commercial developments, older single-family or small multi-family homes, or parking lots into higher intensity developments. For example, several projects under construction in the Downtown Specific Plan area are developed at densities that exceed 30 units per acre (or at least 70 percent of the maximum permitted density): 424 N. Juniper Street – 32.7 units per acre; 456 Escondido Boulevard – 45.6 units per acre; City Plaza – 68.8 units per acre; and Venue – 70.7 units per acre. Both The Crossings and Juniper Senior Village were developed by demolishing existing run-down multi-family units and replacing with higher density developments.

Furthermore, transit-oriented development involving high density (five- to seven-story) residential development is envisioned for the Escondido Transit Center. A conceptual site plan has been prepared although no actual number of units has been determined. The conceptual site plan envisions buildings with up to five to seven stories of residential units and buildings with two stories of live/work lofts above retail space, public plaza, and/or community center.



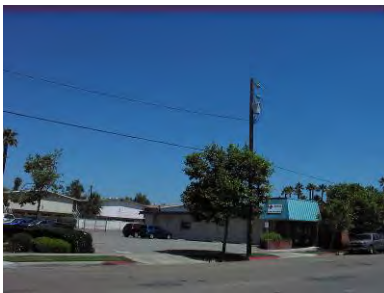
Escondido Transit Center



Several vacant properties are located within the Downtown Escondido Specific Plan area. There are also properties with little improvements/structures on site (such as aging warehouses and service stations) that can be easily redeveloped.



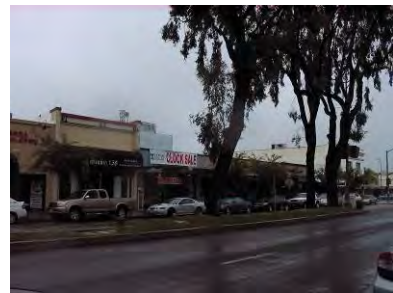
Typical older single-family homes along S. Juniper Street in Downtown Escondido Specific Plan Area. Many homes exhibit structural and/or deferred maintenance issues.



Typical older, underutilized commercial properties along Pennsylvania Avenue and Washington Avenue in the Downtown Escondido Specific Plan area. Most buildings are low-scale (one or two stories) with large parking areas in the front – a site configuration not encouraged by the Specific Plan. Many buildings show signs of deferred maintenance.



Typical older residential and low-intensity commercial uses (e.g. gas station and lumberyard) along 3rd, 4th, and 5th Streets in Downtown Escondido Specific Plan area.



Typical aging, underutilized commercial properties along Grand Avenue in Downtown Escondido Specific Plan Area. High vacancy and turnover rates impact the economic viability of this area.



Typical aging, underutilized commercial properties along Woodward Avenue in Downtown Escondido Specific Plan Area. Most buildings are low-scale (one or two stories) with large parking areas in the front – a site configuration not encouraged by the Specific Plan. Many buildings show signs of deferred maintenance. High vacancy and turnover rates impact the economic viability of this area.

2. South Escondido Boulevard Area Plan

The South Escondido Boulevard Area Plan covers a length of approximately 2.25 miles between 5th Avenue and Center City Parkway and Verda Avenue. This area plan was developed to implement strategies for revitalizing the South Escondido Boulevard commercial corridor and Centre Center Parkway residential area.

The City identified a number of properties within the Plan area where the conditions of existing uses are conducive to redevelopment in the future. Such conditions include large parking areas, older buildings, marginally operating businesses, nonconforming uses, and capacity for additional units. GIS analysis, staff knowledge, and field checks were used to identify and refine the sites selected. Overall, these properties in Plan area can accommodate 1,084 new units.

Table 50: Residential Capacity in South Escondido Boulevard Area Plan

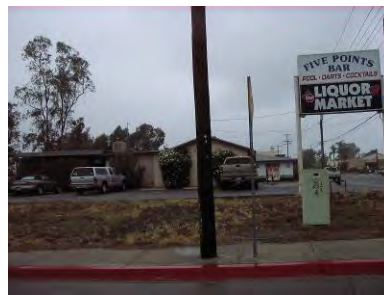
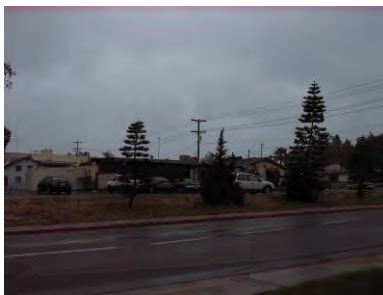
Zoning	Maximum Density	Potential Density	Number of Parcels	Total Acres	Potential Units
Vacant	24.0	16.8	10	7.75	126
Underutilized	24.0	16.8	228	73.86	958
Total	--	--	238	81.61	1,084

Existing Conditions and Recycling Trends

South Escondido Boulevard is characterized by a variety of aging, underutilized, and small-scale commercial development, interspersed with older single-family residential uses. Through the incentives and flexibility offered by the South Escondido Boulevard Area Plan, the City has seen redevelopment interests in the area. Several housing projects have been approved in the area in recent years. However, due to the economy, many of these approvals have expired. The City anticipates that interest in redeveloping the area with higher density residential uses would be renewed once the economy improves.



Several vacant properties are located within the South Escondido Boulevard Area Plan.



Typical aging, underutilized commercial properties along South Escondido Boulevard. Most of these properties have large parking areas with little improvements. Many buildings exhibit deferred maintenance or have not been updated for many years.



Typical older homes in South Escondido Boulevard Area Plan. Most homes are at least 40 years old, occupying relatively large lots; some homes exhibit deferred maintenance issues.



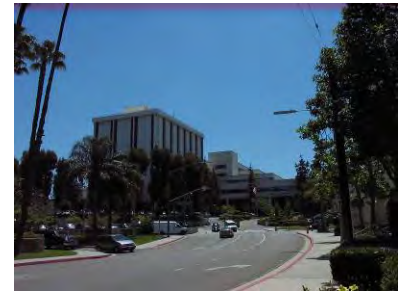
Typical older homes in South Escondido Boulevard Area Plan. Most homes are at least 40 years old, occupying relatively large lots; some homes exhibit deferred maintenance issues.

3. Other City Areas

Table 51 summarizes the residential development potential in areas other than the Downtown Specific Plan or South Escondido Boulevard Area Plan areas. Most are relatively large low density properties that can be subdivided to accommodate additional units with the exception of opportunities available in two areas – Palomar Medical Center and the Mercado Area Plan.

Palomar Medical Center

In 2006, the City entered into a Memorandum of Understanding (MOU) with the Palomar Pomerado Health (PPH) regarding the improvement and expansion of the Palomar Medical Center. Pursuant to the MOU, the Palomar Medical Center will replace, repair and renovate aging facilities at the Downtown Medical Campus and expand its medical facilities into the Escondido Research and Technology Center (ERTC). Improvements at the Downtown Medical Campus may include adding up to 300 housing units at a portion of the 10-acre site, at an allowable density of up to 45 units per acre. The types of housing may include short- and long-term employee housing, assisted care housing, and senior housing. The City will facilitate this project by PPH will vacating a segment of Valley Boulevard.



*Palomar Medical Center
Downtown Campus*

Mercado Area Plan

The area defined as Mercado Escondido comprises 11 acres located along four blocks between Valley Parkway on the north, Pine Street on the east, Fourth Avenue on the south and Quince Street on the west. Intersecting streets also include Grand, Second and Third Avenues. This area is within the older urban core of the community situated between Escondido's historic Downtown and Interstate 15. The City identified approximately four acres of aging commercial/industrial properties and lumberyard in the Mercado Area with mixed use development can occur at a density of 45 units per acre.



Typical aging, underutilized industrial properties along W. 4th Avenue in the Mercado area.

Table 51: Residential Capacity in Other Areas

Zoning	Maximum Density	Potential Density	Number of Parcels	Total Acres	Potential Units
Vacant					
RA/RE	<2.2	<1.5	60	422.49	298
R-1	2.2-7.3	1.5-5.1	34	104.36	295
R-2	8.0-12.0	5.6-8.4	3	1.57	13
R-3	18.0	12.6	1	0.37	4
Subtotal	--	--	98	528.79	610
Underutilized					
RA/RE	<2.2	<1.5	62	184.46	170
R-1	2.2-7.3	1.5-5.1	119	250.17	881
R-2	8.0-12.0	5.6-8.4	20	19.09	104
R-3	18.0	12.6	9	4.09	38
R-4	24.0	16.8	1	0.96	14
H-P	45	30.0	1	10.01	300
M-1	45	31.5	5	4.02	124
Subtotal	--	--	217	472.80	1,631
Total	--	--	315	1,001.59	2,241

C. Ability in Meeting the RHNA

The City's Downtown Specific Plan area can accommodate 3,205 additional units. While not all underutilized properties will be redeveloped with a residential component, market studies in the region have indicated future growth will most likely be spearheaded by mixed use developments. Assuming 50 percent of the Downtown properties to be redeveloped as mixed use projects, at least 1,602 units can be achieved at the Downtown. In addition, the Palomar Medical Center and Mercado district offer high density residential opportunities for another 424 units. Overall, the City has the ability to accommodate 2,026 lower income units under the existing General Plan and zoning, adequate to accommodate the City's lower income RHNA of 1,719 units.

Furthermore, as part of the General Plan update, the City is proposing to introduce a new Mixed Use Overlay that covers an additional 340 acres where the density can reach 80 units per acre and increase the density at a portion of the Urban IV district from 24 units per acre to 45 units per acre. Both actions, if approved by the voters, will provide additional affordable housing

opportunities in the community. However, at this time, these potential capacities have not been factored into the City’s sites inventory.

Moderate income housing can be accommodated in the City’s multi-family residential zones (R3 and R4) at allowable densities between 18 and 24 units per acre. Lower density residential zones (RA, RE, R1, and R2) offer single-family and low-intensity, multi-family residential opportunities that are affordable primarily to above moderate income households.

Based on the City’s currently available residential and mixed use sites, adequate residential capacity is available to meet the City’s RHNA for all income groups. Table 52 summarizes the City’s RHNA status.

Table 52: Summary of RHNA Status

	Extremely Low/Very Low	Low	Moderate	Above Moderate	Total
RHNA	1072	791	733	1609	4,175
RHNA Credits	90	24	2	662	778
Remaining RHNA	952	767	731	947	3,397
Residential Capacity					
RA/RE/R1/R2 (<18 du/ac)				1,761	1,761
R3/R4 (18-24 du/ac)			1,140		1,140
Downtown (MU - 45 du/ac)		3,205			3,205
50% Capacity		1,602			1,602
Medical Center (30 du/ac)		300			300
Mercado (M1 - 45 du/ac)		124			124
Total Capacity		2,026	1,140	1,761	4,927
Surplus (Shortfall)		307	409	814	1,530

D. Financial Resources

Providing affordable housing for lower and moderate income households require the creative layering of multiple funding sources. Key funding sources available to the City of Escondido for the construction, acquisition/rehabilitation, and preservation of affordable housing include the following:

Redevelopment Housing Set-Aside Funds

Under Community Redevelopment Law, at least 20 percent of collected redevelopment funds are set aside and held in a low- and moderate-income housing fund. All interest or revenue generated by the fund accrues to the fund. In addition, repayments of loans originally funded from Housing Set-Aside funds are returned to the fund. By law, these funds must be used to increase and improve the supply of low- and moderate-income housing within Escondido.

When possible, the Housing Set-Aside funds are used as leverage for other public and private financing. By loaning, rather than granting the funds, the City anticipates a number of loan

payoffs from the First-time Homebuyer Program, the Rehabilitation Loan Program and other special project loans, which accrue to the fund and may be reused for new loans or programs.

The Department of Housing and Community Development requires an estimation of the planned uses and expenditures of the Low and Moderate Income Housing Fund pursuant to Government Code Section 65583 (c). An estimated 44 million could accrue in the fund over the eight-year planning period of this Housing Element. The City anticipates using set-aside funds to provide rehabilitation assistance, offer first-time homebuyer assistance, extend the affordability restriction of at-risk housing, pursue acquisition/rehabilitation of multi-family housing, and subsidize new construction.

Community Development Block Grants (CDBG)

The Community Development Block Grant (CDBG) program was initiated by the Housing and Community Development Act (HCDA) of 1974. The primary objective of the program is to develop viable urban communities by providing decent housing, a suitable living environment, and economic opportunities, principally for persons of low incomes (up to 80 percent AMI). CDBG funds can be used for a wide array of activities, including:

- Housing rehabilitation;
- Lead-based paint screening and abatement;
- Acquisition of buildings and land;
- Construction or rehabilitation of public facilities and infrastructure;
- Public services for low income persons and persons with special needs; and

The City of Escondido is an entitlement jurisdiction for CDBG funding and receives approximately \$1.6 million annually. The City uses CDBG funds to provide residential rehabilitation assistance and a variety of supportive services for lower income residents and those with special needs.

HOME Investment Partnership Program (HOME)

The HOME program provides federal funds for the development and rehabilitation of affordable rental and ownership housing for households with incomes not exceeding 80 percent of area median income. The program gives local governments the flexibility to fund a wide range of affordable housing activities through housing partnerships with private industry and non-profit organizations. HOME funds can be used for activities that promote affordable rental housing and homeownership by low income households.

Escondido is an entitlement jurisdiction that receives HOME funds directly from HUD. Each year, the City receives approximately \$800,000 in HOME funds. The City uses HOME funds to support affordable housing development through Community Housing Development Corporations (CHDOs) and pursue acquisition/rehabilitation of multi-family rental housing.

E. Administrative Capacity

The City of Escondido collaborates with a number of nonprofit organizations to expand affordable housing opportunities for residents. These include:

- Community HousingWorks: 16-unit 15th Avenue Cooperative; 13-unit Daybreak Cove; 24-unit Eucalyptus View; 32-unit Orange Place Cooperative; and 8-unit Sunrise Place
- Interfaith Services: 8-unit Aster Street Apartments
- National Core: 44-unit Cobblestone Street Apartments; and 61-unit Juniper Senior Village

The City will continue to work with these and other qualified nonprofit affordable housing developers to create affordable housing through new construction, acquisition/rehabilitation, and preservation.

F. Opportunities for Energy Conservation

Title 24, Building Energy Standards for Residential Development, establishes energy budgets or maximum energy use levels. The standards of Title 24 supersede local regulations, and State requirements mandate Title 24 requirements through implementation by local jurisdictions. The City will continue strict enforcement of local and state energy regulations for new residential construction, and continue providing residents with information on energy efficiency.

PG&E offers an Energy Savings Assistance program offers income-qualified households assistance to:

- Install improvements to help make the home more energy efficient;
- Help understand the best ways to save energy around the home; and
- Determine whether some of the appliances are eligible for free repairs or replacement.

Examples of free home improvements offered by PG&E include: attic insulation; door weatherstripping and caulking; low-flow showerheads and faucet aerators; water heater blankets; energy-efficient lighting; and assistance in selecting energy-efficient appliances.

In addition, the City offers housing rehabilitation programs for single-family homes and mobilehomes. Energy efficiency improvements are eligible repairs under these programs.

V. Review of Past Accomplishments

To develop appropriate programs to address the housing issues identified in the 2013-2020 Housing Element, the City of Escondido has reviewed the housing programs adopted in 2005-2010 Housing Element (extended by law to cover through 2012) and evaluated the effectiveness of these programs in delivering housing services and assistance. Table 53 summarizes the City's progress toward the previous RHNA and Table 54 provides a detailed program-level assessment of housing accomplishments over the last planning period.

Table 53: Progress toward 2005-2010 RHNA

	Extremely Low/Very Low	Low	Moderate	Above Moderate	Total
RHNA	548	417	461	1,011	2,437
RHNA Credits	93	75	18	957	1,143
Remaining RHNA	455	432	443	54	1,384

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Construction: 1.1 Project Development Create an increased supply of affordable units for low-income households, including redevelopment and rehabilitation.</p>	<p>Increase supply of ownership units for very low-income and low-income residents; and increase supply of rental units for very low-income and low-income residents by 200 units.</p>	<p>36 new affordable ownership units and 202 new affordable rental units, including Juniper Senior Village (61 total, 60 affordable), Las Ventannas (80), Serenity Village (8), Brotherton Square (22), Milane Lane (7), Orangetown(7), and Crossings (55 total, 54 affordable).</p> <p>The income distribution of these affordable units are as follows:</p> <p><u>Ownership:</u> Moderate (120% AMI): 17 units Low (80% AMI): 5 units Low (60% AMI): 6 units Very Low (50% AMI): 8 units</p> <p><u>Rentals:</u> Low (60% AMI): 44 units Very Low (50% AMI): 135 units Extremely Low (30% AMI): 23 units</p>	<p>This program is included in the 2013 Housing Element</p>
<p>Construction: 1.2 Mortgage Revenue Bonds Continue providing the city’s credit support for the issuance of revenue bonds for developing and maintaining affordable housing.</p>	<p>Acquisition, rehabilitation, preservation or construction of affordable rental units for low-income households.</p>	<p>Mortgage Revenue Bonds were not used during period.</p>	<p>While mortgage revenue bond remains a viable funding source for affordable housing, it is not a program administered by the City. The 2013 Housing Element includes a program to pursue a variety of affordable housing resources, including but not limited to mortgage revenue bonds, low income housing tax credits, and other State and federal housing funds.</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Construction: 1.3 First-Time Homebuyers/ Home Entry Loan Program/ Homeownership Made Easy Program Continue existing programs and explore new ways to increase homebuying opportunities to low- and moderate-income homebuyers.</p>	<p>Increase homeownership opportunities for 200 low- to moderate-income households.</p>	<p>199 HELP loans since 2005 277 HOME loans since 2005 476 Total All HELP and HOME loans were made to lower income households, including extremely low income households.</p>	<p>Due to the success of this program, it is included in the 2013 Housing Element.</p>
<p>Construction: 1.4 First-Time Homebuyers: Mortgage credit Certificates Provide MCCs to increase homeownership opportunities to low- and moderate-income households through cooperation with the County and lenders</p>	<p>Continue issuing MCCs and promoting program</p>	<p>22 MCCs issued through since 2005 All MCCs were issued to moderate income homebuyers.</p>	<p>This program is included in the 2013 Housing Element.</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Construction: 1.5 Emergency Shelter Program Escondido coordinates with other agencies that receive funding for shelters and equipment.</p>	<p>Continue the shelter program To amend the Zoning Code to give emergency shelters their own land use classification and permit in the HP zone with a CUP to streamline requests.</p>	<p>Code amendment to classify emergency shelters as permitted in the HP zone with a CUP was not approved by CC on 8/22/07.</p> <p>The City worked collaboratively with the other jurisdictions in the region to create a comprehensive plan in which each city provides emergency shelter annually for an agreed amount of homeless individuals for 100 consecutive days starting in early December. On 9-12-07, City Council approved the Regional Plan allowing for the use of the Salvation Army multi-purpose room as shelter for 30 individuals. During 2008, 2009 and 2010 the facility operated at its approved capacity. After the Salvation Army indicated the site would not be available for the 2010-2011 winter shelter, the City Council approved a request on September 12, 2010, to relocate the 100-day winter shelter. The shelter opened on December 1, 2010, at 624 Metcalf Street. A Winter Shelter has been opened in Escondido for a 100-day winter season every year during HE period.</p>	<p>To comply with SB2 requirements, the 2013 Housing Element includes a program to amend the Zoning Code to permit emergency shelters in HP zone by right.</p>
<p>Construction: 1.6 Section 202. Development Federal capital advances and project rental assistance under section 202 of the Housing Act for development serving senior households.</p>	<p>Provide housing opportunities for senior/disabled households. Increase the number of affordable units to seniors and persons with disabilities by 34.</p>	<p>60 units affordable to lower-income seniors (Juniper senior Village) opened in December, 2010. CC approved Section 202 application but project received 9% tax credits.</p>	<p>Section 202 is a federal funding program. The 2013 Housing Element includes a program to pursue a variety of housing funds.</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Construction: 1.7 In-Fill New Construction The City will continue to support construction of new housing for ownership and rental units on in-fill sites.</p>	<p>New housing opportunities for rental and homeownership for low- and moderate-income households. City to track in-fill sites and coordinate all aspects of development for rental or owner units.</p>	<p>Housing Division Manager met with several developers to discuss potential redevelopment, facilitating maximum densities in high density zones. 24 new affordable units (Serenity Village (8), Brotherton Square (5), Oranewood (7) and Raymond’s Refuge (4) were completed on infill sites during 2007. (All remaining 17 units in Brotherton Square were completed in 2009). Two development proposals (Las Ventanas and the SoCal Senior Development) on infill sites for a total of 141 units (138 affordable) were approved in spring of 2006 for a total of 179 affordable units. Las Ventanas was mostly built in 2007 and completed in 2008. Juniper Senior Village (60 affordable units) was completed in 2010. A proposal for acquisition of multi- family units on Elder Place for the purpose of redevelopment was approved in 2009. Construction began in 2010 on a 55-unit family development. \$9.5M in redevelopment funds was leveraged with other funding sources. The development was named “The Crossings” and the street name was changed to Mission Grove Place.</p> <p>Income Distribution: Moderate (120% AMI): 17 units Low (80% AMI): 5 units Low (60% AMI): 44 units Very Low (50% AMI): 142 units <u>Extremely Low (30% AMI): 27 units</u> 235 total</p>	<p>This program is included in the 2013 Housing Element.</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Construction 1.8: City-Owned Sites Evaluate inventory of City-owned properties for potential redevelopment or development for residential units.</p>	<p>Locate new sites for affordable housing by using City ownership as an inducement.</p>	<p>The City continues to review City-owned sites for affordable housing opportunities. The City has utilized Neighborhood Stabilization Program acquired sites for future affordable housing projects.</p>	<p>This program is included in the 2013 Housing Element</p>
<p>Construction: 1.9: Density Bonus A bonus in the form of a density increase above the land use designation or other development incentives if project provides units for affordable housing.</p>	<p>Additional opportunities for low and moderate income households. Available incentives will allow for increased number of bedrooms/units. Review an amendment to the City’s density Bonus and Residential Incentive Ordinance.</p>	<p>During the Housing element cycle, the City’s density bonus ordinance was not amended to be consistent with the State requirements. Affordable residential projects have utilized density bonus provisions since 2005, including Las Ventanas (1404 S Escondido Blvd) and Juniper Senior Village (215 E Washington).</p>	<p>This program is included in the 2013 Housing Element. The City has included an action to revise the Ordinance for consistency with the State Ordinance.</p>
<p>Rehabilitation: 2.1: Housing-Rehabilitation-Owner-Occupied Assist homeowners with technical assistance and loan funds to make necessary repairs to single-family residences and mobilehomes.</p>	<p>Rehabilitation of 160 units for very low income, low income and moderate income households.</p>	<p>130 rehabilitation loans have been issued in five years of program, since 2005. All recipients have a household income under 80% AMI.</p>	<p>This program is included in the 2013 Housing Element. The program is successful and continuation is appropriate.</p>
<p>Rehabilitation: 2.2 Housing Rehabilitation: Renter Occupied: Continue to explore potential rental rehabilitation programs.</p>	<p>Increase rental rehabilitation for 50 very low income and low income households.</p>	<p>There was little interest by landlords in previous programs. The City continues to explore potential rental rehabilitation programs.</p>	<p>This program is included in the 2013 Housing Element. The City would continue looking for opportunities for rental rehabilitation programs.</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Rehabilitation: 2.3: Recycling Existing Structures Encourage recycling deteriorated, older structures for affordable housing opportunities.</p>	<p>Affordable housing opportunities for 20 very low income and low income households.</p>	<p>Two redevelopment proposals for a total of 141 units (140 affordable) were approved in the spring of 2006, from recycling opportunities. 80 of the units were completed in 2008 (Las Ventanas) and 60 affordable (61 total) senior units were completed in December, 2010 (Juniper Senior). Both sites contained existing, run-down units. The Housing Division Manager continues to research and meet with developers interested in acquisition and rehabilitation.</p> <p>During 2008, the City allocated \$5M toward the acquisition and rehabilitation/redevelopment of Elder Place in order to provide 55 units (54 affordable) (The Crossings). The sites contained run down, medium-density multi-family residences, which were demolished. In 2009 the project was awarded 9% tax credits, and another \$4.5M in redevelopment funds was allocated. Ground was broken in June, 2010 and it is anticipated that units will be ready for move-in in Summer, 2011.</p> <p>Income Distribution: Low (60% AMI): 44 units Very Low (50% AMI): 135 units <u>Extremely Low (30% AMI): 15 units</u> 194 total</p>	<p>Acquisition with rehabilitation continues to be a focus of the City. This program is included in the 2013 Housing Element.</p> <p>However, the focus will be on acquisition and rehabilitation rather than the revitalization (demolition) that has occurred in the past.</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Rehabilitation: 2.4: Focus on Neighbors Program City plan targets neighborhoods through various local and state funds by concentrating resources.</p>	<p>Concentration of City resources to one neighborhood for opportunity for significant community impact in physical improvement and improvement in quality of life.</p>	<p>The division facilitated the formation of 14 organized neighborhood groups. Through 12-31-2010, the concentrated efforts and resources achieved in neighborhoods such as the Westside, Orange Place, Mission Park, Tulip Street and N. Hickory Street neighborhoods included street improvements, community engagement and community beautification efforts.</p> <p>Building at 120 Woodward Avenue was purchased by the City for use by the Tiny Tots program.</p> <p>Appearance and Compliance Team (ACT) conducted several sweeps of neighborhoods throughout the City for code violations before the team was disbanded in early 2010.</p> <p>Phase I and Phase II of the street improvement project were completed in the Tulip Street neighborhood, and Phase III is underway.</p> <p>The Crossings, a 55-unit affordable rental family development is being constructed within the Mission Park neighborhood.</p> <p>Project NEAT was started in 2010 to assist residents in solving their own neighborhood problems at a neighborhood (rather than Code Enforcement) level, such as maintenance, graffiti, minor repairs and trash.</p>	<p>This program is has been very successful and is included in the 2013 Housing Element</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Conservation: 3.1: Transitional Housing/ Project Development Assist non-profits to provide transitional facilities with and without on-site services.</p>	<p>Assist households with special needs in the very low income and low income categories (48 beds/units).</p>	<p>There are several transitional facilities located in the City, assisting a variety of target populations. Many have been assisted by the City and others have been funded entirely by non-profits.</p> <p>Serenity Village, an eight-unit facility for women and children, was completed in 2003 with the assistance of City affordable housing funds. Interfaith Community Services has provided several transitional facilities with and without the City's assistance. Of the many transitional facilities available, the City monitors only six of them due to funding sources.</p>	<p>Providing a variety of transitional housing in the City is very important. Pursuant to Housing Element law, the City will amend its Zoning Code to address the provision of transitional and supportive housing. This program is included in the 2013 Housing Element.</p>
<p>Conservation: 3.2: Rental Subsidy Rental assistance for very low income households, including seniors and persons with disabilities.</p>	<p>Section 8: guaranteed subsidy ensures that households earning less than 50% of median income would spend less than 30% of income for rent.</p> <p>City rental assistance: Rental assistance for very low income and senior/disabled households (mobilehomes or apartments)</p>	<p>During 2010 an average of 1,227 households were assisted with Section 8 rental vouchers. The majority of recipients are earning less than 50% of the AMI (Very low income). Approximately 4% earn between 50-80% AMI.</p> <p>Rental subsidy: during 2010, a monthly average of 146 very low income seniors in mobilehomes and 137 very low income seniors in apartments were receiving rental subsidies. All recipients are earning no more than 50% AMI (either very low income or extremely low income)</p>	<p>Rental subsidy programs are very successful. This program is included in the 2013 Housing Element</p>
<p>Conservation: 3.3: Mobilehome Park Conversion Existing ordinance assists occupants involved in conversion of mobilehome parks.</p>	<p>Continue mobilehome resident ownership opportunities for very low income and low income residents.</p>	<p>During the 2005 Housing element period, one mobilehome park conversion (Sundance Mobilehome Park) was attempted, but not completed. It remains a rental park. No other mobilehome parks have been converted in the current HE cycle.</p>	<p>Continuation of program is appropriate to assist those wishing to purchase their spaces/park. This program is included in the 2013 Housing Element</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Conservation: 3.4: Mobilehome Rent Review Existing ordinance allows review of proposed increase in rents in mobilehome parks. Rent Review Board reviews such requests with the objective of maintaining affordability of units.</p>	<p>Stabilize rents for mobilehome residents, many of whom are very low-income and low-income.</p>	<p>During the Housing element cycle, 56 rent review hearings were held and monthly increases ranging from \$1.49 up to \$39.78 were approved.</p>	<p>This program is very successful and is included in the 2013 Housing Element</p>
<p>Conservation: 3.5: Existing Subsidized Housing Development Assistance Explore means to continue housing affordability for low-income households that would be impacted by conversion of existing subsidized projects to conventional housing.</p>	<p>Track affordable housing developments to work with owners to extend affordability periods. Contact non-profit or for-profit developers to explore possibility of acquisition and extending affordability periods.</p>	<p>Three federally assisted projects have previously been identified as being at-risk, Escondido Apartments (92 units), Escondido Park Apartments (164 units) and Mission Terrace (122 units). The owner of Escondido Park Apartments (now Glen Brook Terrace) prepaid the mortgage and raised rents to reflect fair market value. Affordability restrictions on Escondido Apartments were extended to Feb 8, 2046 when it was purchased by Alpha. In 2010 the City was notified that the owners of Mission Terrace Apartments were going to terminate Section 8 project-based rental subsidies when their contract expired on June 1, 2011. It is anticipated that the subsidy will be converted to tenant based Section 8 vouchers.</p>	<p>Continuation of this program is appropriate to protect housing affordability. This program is included in the 2013 Housing Element</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Administrative Programs: 4.1: Fair Housing City shall engage in fair housing planning, including collaboration on Regional Analysis of Impediments, as required through HOME and CDBG funding.</p>	<p>Continue enforcement of Fair Housing Plan to prevent discrimination. Continue tenant/landlord assistance program. Disperse information regarding program.</p>	<p>The City continues to contract with a Fair Housing Services Provider (currently North County Lifeline) to provide fair housing services, including legal and mediation services. Services include bilingual assistance. Fair Housing information is located on website and distributed at Housing Counter and Neighborhood Porches.</p> <p>The City continues to disperse information, review potential impediments to fair housing, and meet with other jurisdictions to discuss and address potential regional impediments. Jurisdictions in the region collaborated to prepare a new Regional Analysis of Impediments for 2010 to 2015. The Final AI has been accepted by all jurisdictions and received approval from HUD.</p>	<p>This program is included in the 2013 Housing Element</p>
<p>Administrative Programs: 4.2:Code Revisions: Nonconforming Use Ordinance Zoning Code was amended to permit alterations and improvement of nonconforming residences used for low-income housing without limitation as to cost.</p>	<p>Continued occupancy of low-income units.</p>	<p>The new provision in the Non Conforming Use Ordinance was not utilized during the HE cycle. However, it can be a valuable tool in preserving affordable units.</p>	<p>While the City will continue to utilize this section of the Zoning Code, it is not included in the 2013 Housing Element as a separate housing program.</p>
<p>Administrative Programs: 4.3: Senior Housing Ordinance Enforcement Senior housing developments developed under Senior Housing Ordinance of 1982 must report conformance with occupancy requirements for low and moderate income households.</p>	<p>Continued availability of senior housing.</p>	<p>The Senior Housing Ordinance was amended in 2007 so that annual reporting is no longer required.</p> <p>Density bonuses to promote affordable housing are available through Density Bonus Ordinance.</p>	<p>Senior housing is currently approved via a Conditional Use Permit process. The 2013 Housing Element includes a program to amend the Zoning Code to remove the CUP requirement.</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Administrative Programs: 4.4: Housing Information and Referral Continue updating public information which identifies the city’s housing programs.</p>	<p>More effective and targeted housing programs, especially for very low- and low-income households.</p>	<p>City website and Housing page of website have been updated to include more information</p>	<p>This program is continued in the 2013 Housing Element to ensure most up-to-date information possible and to expand website information and placement of affordable housing materials.</p>
<p>Administrative Programs: 4.5: Housing Element Update The Housing element shall be revised and updated by July 1, 2009 to incorporate new data (date extended to Jan 2013).</p>	<p>Continuing current housing element</p>	<p>City reviews and updates Housing Element as required based on timing of State.</p>	<p>The City will continue to comply with State law and update its Housing Element as required. However, this is not included in 2013 Housing Element as a separate housing program.</p>
<p>Administrative Programs: 4.6: Land-Use Policies City staff to review various housing and housing-related policies to ensure consistency with goals and programs of Housing Element.</p>	<p>Coordination and consistency of plan elements at all income categories.</p>	<p>Staff from various departments continue to review housing-related policies for consistency. This is expected to continue after adoption of the 2013 Housing Element.</p>	<p>The 2013 Housing Element was updated as part of a comprehensive General Plan update. This is not included in the 2013 Housing Element as a separate housing program.</p>
<p>Administrative Programs: 4.7: Licensed Residential Care Facilities Continue to permit licensed care facilities in General Commercial and Hospital Professional Ones by right, and in residential zones with a Conditional Use Permit</p>	<p>Continued development of congregated care facilities/licensed residential care facilities for seniors and all income categories.</p>	<p>Meadowbrook Village, a combined skilled nursing (27 beds), congregated care (51 beds) and senior facility (65 units) was approved in 2004 and has been under construction. Two units were added in 2008 and another 2 in 2009 (total of 147). An expansion of 13 additional skilled nursing beds was approved in December, 2010. An 11-bed facility was approved on Avocado Avenue in March, 2010. There are many existing residential care facilities, including many 6-bed facilities which are permitted by right and do not require a permit.</p>	<p>The 2013 Housing Element includes a new program to address the provision of transitional and supportive housing.</p>

Table 54: Review of Past Accomplishments

2005 Housing Element	Expectation	Accomplishment	Continued Appropriateness
<p>Administrative Programs: 4.8: Regional Planning and Cooperation Continue to coordinate with other cities within the region, share information and ideas, increase efficiency by exploring common housing issues and possible solutions.</p>	<p>More efficient and cost-effective housing programs.</p>	<p>Ongoing regional coordination in several groups and attendance at conferences, including SANDAG, Fair Housing Resource Board, etc. Also, active member of San Diego Housing Federation,</p>	<p>City staff will continue to participate in regional planning efforts to provide a variety of housing options, especially affordable housing, throughout the region. However, this action is not included in the 2013 Housing Element as a separate housing program.</p>
<p>Administrative Programs: 4.9 Nonprofit Corporation (NPC) Support Continue to support the ability of NPCs to participate in various housing programs.</p>	<p>More housing assistance for very low-income and low-income households and more effective NPCs.</p>	<p>City supports several non-profits providing affordable housing services. Currently there are two organizations that have been certified as Community Housing Development Organizations (CHDOs)</p>	<p>The City will continue to support the efforts of nonprofit developers to provide affordable housing through a variety of activities: infill development, new construction, acquisition and rehabilitation, and transitional housing services, among others. This program has been integrated with other affordable housing programs.</p>
<p>Administrative Programs: 4.10 Ordinance Review Staff review of various housing and housing-related ordinances for impacts on low- and moderate-income housing, senior housing, and housing for persons with disabilities.</p>	<p>Removal of governmental constraints to very low-income and low-income units. Density Bonus Ordinance Minimum densities in multi-family zones</p>	<p>Minimum density ordinance was approved in 2007. Other proposed changes to Density Bonus Ordinance were not approved. Local ordinance should maintain consistency with State Ordinance.</p>	<p>This program is included in the 2013 Housing Element to update the City's Density Bonus ordinance.</p>

VI. Housing Plan

The Housing Plan identifies the City's housing goals, policies, and implementing programs. The overall strategy is to present a balanced and diverse array of policies that cover four overall areas of concern: construction, rehabilitation, conservation, and administration. The goals and policies of the Housing Element were organized into concise goal and policy directives. Section A reflects State goals and Section B reflects the City's goals, policies, and actions.

A. State Housing Goals

The State legislature set the context for housing goals when it stated its findings as part of the State's housing laws (Government Code §65580):

- The availability of housing is of vital statewide importance, and the early attainment of decent housing and a suitable living environment for every Californian, including farmworkers, is a priority of the highest order.
- The early attainment of this goal requires the cooperative participation of government and the private sector in an effort to expand housing opportunities and accommodate the housing needs of Californians of all economic levels.
- The provision of housing affordable to low and moderate income households requires the cooperation of all levels of government.
- Local and State governments have a responsibility to use the powers vested in them to facilitate the improvement and development of housing to make adequate provision for the housing needs of all economic segments of the community.
- The Legislature recognizes that in carrying out this responsibility, each local government also has the responsibility to consider economic, environmental, and fiscal factors and community goals set forth in the general plan and to cooperate with other local governments and the State in addressing regional housing needs.

B. City Housing Goals and Policies

GOAL 1: Plan for Quality, Managed, and Sustainable Growth

Housing Policy 1.1

Expand the stock of all housing while preserving the health, safety, and welfare of residents, and maintaining the fiscal stability of the City.

Housing Policy 1.2

Pursue a balance of jobs to housing.

Housing Policy 1.3

Channel residential growth to areas where the concurrent provision of services and facilities, including schools, parks, fire and police protection, and street improvements can be assured.

Housing Policy 1.4

Encourage a compact, efficient urban form that conserves land and other natural and environmental resources, and that promotes transit, supports nearby commercial establishments, and takes advantage of infrastructure improvements installed to accommodate their intended intensities.

Housing Policy 1.5

Encourage creative residential developments and partnerships that result in desirable amenities and contribute to infrastructure needs.

Housing Policy 1.6

Incorporate smart growth principles in new residential subdivisions, multi-family projects, and Mixed Use Overlay areas.

GOAL 2: Provide a Range of Housing Opportunities for All Income Groups and Households with Special Needs

Housing Policy 2.1

Accommodate the regional share of housing for all income groups.

Housing Policy 2.2

Increase homeownership in the City through education, availability, and affordability.

Housing Policy 2.3

Apply criteria demonstrating appropriateness for converting mobilehome parks to ownership or alternative uses.

Housing Policy 2.4

Seek ways to eliminate all forms of discrimination based on race, ancestry, national origin or color, religion, sex, familial or marital status, disability, medical condition, age, sexual orientation, or source of income in obtaining housing.

GOAL 3: Enhance the quality of the City's housing stock and preserve the integrity of neighborhood character

Housing Policy 3.1

Maintain and enhance the existing housing stock as a source of low- and moderate-cost housing and as a conservation measure.

Housing Policy 3.2

Seek ways to eliminate substandard housing through continued enforcement of the Health and Safety Code and the provision of programs which facilitate the maintenance and rehabilitation of housing.

Housing Policy 3.3

Utilize code enforcement measures and incentive programs as necessary to ensure that building and safety regulations are met and to promote property maintenance.

C. Implementing Programs

This section describes the programs the City will carry out during the timeframe of the Housing Element. The programs are designed to implement the City's goals and policies. Each program identifies the specific steps needed to carry out the policies. Also provided under each program are the anticipated impacts (who the program will affect, including income groups and number of households/units), the responsible agencies, financing, and the schedule for completion.

The following programs address a range of housing needs and represent a commitment by the City to address those needs in a responsible manner. The programs are designed to build upon one another; no single program should be perceived as the panacea for all the City's needs. Most of the programs are continued from the previous housing element cycle. Many of them are modified to reflect the changed market conditions or streamlined to offer flexibility in implementation.

Housing Program Proposals/Assumptions

The proposals prepared for this report were based on the following assumptions:

- All means of providing affordable housing in Escondido should be explored, including partnerships with local, private, and nonprofit sectors.
- The Housing Division should take advantage of any federal, state, or private foundations' technical assistance or funds when these programs complement or further local housing program policies and goals.
- Housing programs within the Housing Division should be flexible and diversified to allow the City to respond to evolving needs in a timely manner.
- Whenever possible, newly proposed programs should be coordinated with ongoing housing programs.
- Proper administrative implementation is not evaluated on cost effectiveness alone, but on responsiveness, experience, accountability and local visibility.

1. Expansion of Housing Stock and Options

Program 1.1: Project Development

Action: This program will create an increased supply of affordable units for lower income households, including those households with extremely low incomes. The City will make every effort to reach this goal through redevelopment and acquisition/rehabilitation. Project Development Funds would be made available for loans to increase the supply of rental and ownership units. Priority for funding will be provided to those projects that also include units for extremely low income households. A portion of the fund could be made available for grants. The Project Development Fund could be used for a wide variety of uses, including but not limited to:

- Technical assistance, design and finance services and consultation, and administrative costs for eligible nonprofits;
- Mortgage subsidies for rehabilitation or new construction of eligible multi-family units;
- Limited equity cooperatives;
- Construction financing for new units;
- Acquisition of rental easements in existing or proposed projects;
- Acquisition of housing units for the preservation of units; and
- Administrative costs for housing assistance groups or organizations when such a loan or grant will substantially increase the recipient's access to housing funds elsewhere.

Identification of categories of highest need for proposed projects will be determined by the Community Development Commission/City Council. The potential categories could include families, seniors, and special needs groups.

Anticipated Impact: Increased supply of rental units for extremely low, very low income, and low income residents – 300 units

Responsible Agencies: Community Services Department/Housing Division

Financing: Tax-increment set-aside; HOME funding

Schedule: Ongoing; issue RPF/RFQ as funding becomes available

Program 1.2: In-fill New Construction

Action: The City will continue to support construction of new housing for homeownership and rental units on in-fill sites. This effort would include the coordination of land use regulations, and area plans, public land opportunities, CDBG and HOME inducements, and mortgage revenue bonds as an in-fill package.

Further, the City will encourage the recycling and revitalization of identified sites in the Downtown Specific Plan and South Escondido Boulevard Area for a variety of housing types

and income levels. To maximize the housing potential for these underutilized sites, the City will proactively contact and work with the development community and adopt a revised Density Bonus Ordinance and will monitor (and address as appropriate) any potential development constraints such as processing time, appropriate densities, site specific development standards, lot consolidation and land assemblage.

Anticipated Impact: New housing opportunities for homeownership and rental for low- and moderate-income households

Responsible Agencies: Community Services Department/Housing Division; Community Development Department/ Planning Division

Financing: CDBG, HOME, mortgage revenue bonds, in-kind City-owned property, and tax increment set-aside

Schedule: Annually develop and pursue project plans for the recycling of underutilized sites in the Downtown Specific Plan and South Escondido Boulevard and other ongoing activities to facilitate the recycling of non-vacant sites:

- Annually track the remaining infill sites in the urban core right-of-way.
- Prepare and distribute marketing materials to promote the availability of incentives by 2012.
- Annually, contact developers and pursue development plans on identified recyclable sites and promote infill and reuse strategies and incentives.
- Provide financial assistance as loans and grants using resources such as tax increment set-aside, CDBG, mortgage revenue bonds, and HOME; and explore ways to increase funding for development/redevelopment of homeownership and rental units affordable to lower income households on infill and recyclable sites.

Program 1.3: City-Owned Sites

Action: The City maintains an inventory of City-owned properties. These parcels are periodically assessed for their potential redevelopment or development for residential use. The objective is to use City-ownership as an incentive for affordable housing development. Through the Neighborhood Stabilization Program, the City has acquired sites for future affordable housing. To the extent feasible, the City will pursue projects that include housing for extremely low income households and those with special needs.

Anticipated Impacts: Sites for affordable housing

Responsible Agencies: Community Services Department/Housing Division; Community Development Department/ Planning Division

Financing: Tax-increment set-aside; HOME; CDBG

Schedule: Ongoing

Program 1.4: Density Bonus

Action: The City first adopted its Density Bonus and Residential Incentive Ordinance in 1990. The ordinance allows a minimum density bonus of 25 percent and deviations from the Zoning Code for affordable or senior housing. However, these density bonus provisions are not consistent with the current State density bonus law. The City will amend its Zoning Ordinance to reflect State law.

Anticipated Impacts: Additional housing opportunities for lower and moderate income households

Responsible Agencies: Community Development Department/Planning Division

Financing: Departmental budget

Schedule: Within one year of the adoption of the Housing Element

1. Rehabilitation and Conservation of Housing Stock

Program 2.1: Housing Rehabilitation – Owner-Occupied

Action: The City assists homeowners with technical assistance and loan funds to make necessary repairs to their single-family and mobilehomes. Technical assistance includes assessment of rehabilitation needs, detailed work write-ups, a list of contractors, preparation of loan documents and contracts, and monitoring work progress.

Eligible households, earning up to 80 percent of the Area Median Income, may qualify for loans up to \$20,000 to rehabilitate mobilehomes and up to \$40,000 to rehabilitate single-family homes. Loans are interest-free for mobilehome owners and at three percent for single-family homeowners. Repayment of the City’s loan is deferred until sale, transfer, or refinance of the unit or until residence is no longer occupied by qualified borrower.

Anticipated Impacts: Rehabilitation of units for lower income households (up to 80 percent AMI) – 150 households

Responsible Agencies: Community Services Department/Housing Division

Financing: Tax-increment set-aside

Schedule: Ongoing; continue to market program on City website and at public counters

Program 2.2: Housing Rehabilitation – Renter-Occupied

Action: Maintaining and improving the City’s rental housing stock is an important goal of the City’s overall affordable housing strategy. While in the past the abundance of financing in the private market has made government-sponsored rehabilitation loans less attractive, the credit market has changed, tightening the availability of financing for rehabilitation. The City will continue to explore potential rental rehabilitation programs.

Anticipated Impacts: Increase rental rehabilitation for lower income households – 25 units

Responsible Agencies: Community Services Department/Housing Division

Financing: HOME; tax-increment set-aside

Schedule: Ongoing

Program 2.3: Acquisition/Rehabilitation

Action: The City continues to explore ways to encourage recycling deteriorated, older structures for affordable housing opportunities. The focus is on acquisition/rehabilitation of existing structures and converting the rehabilitated units as affordable housing. The City will pursue partnership opportunities with qualified nonprofit developers to implement this program and prioritize funding for projects that include units affordable to extremely low income households and those with special needs.

Anticipated Impacts: Additional affordable housing opportunities for lower income households – 200 units

Responsible Agencies: Community Services Department/Housing Division

Financing: CDBG; HOME; tax-increment set-aside; private participation

Schedule: Ongoing

Program 2.4: Focus on Neighborhoods Program

Action: Through various local and state funds, the City of Escondido makes funds and other resources available for the improvement of neighborhoods. Through proactive code enforcement, housing rehabilitation, and capital improvements, the City targets at improving the quality of life one neighborhood at a time. In addition, land use policies or ordinances are reviewed to explore means of providing community revitalization.

Anticipated Impacts: The concentration of City resources to one neighborhood and the opportunity for significant community impact both in physical improvement and improvement in quality of life for neighborhood residents

Responsible Agencies: Community Services Department/Housing Division

Financing: Tax-increment set-aside; CDBG; General Fund

Schedule: Identify new neighborhood for targeted assistance in 20XX; annually allocation resources to program

Program 2.5: Preservation of at-Risk Housing

Action: Within the 2013-2023 “at-risk” housing analysis period, six projects are considered at risk of converting to market-rate housing. These projects offer 200 housing units, inclusive of 198 units that are affordable to lower income households. Among these six projects, three are at risk due to expiring Section 8 contracts (Escondido Apartments, Silvercrest Escondido, and Michalowski House). The other three projects (Las Casitas I, Daybreak, and Sunrise Place) are nonprofit-owned affordable housing and have low risk of converting to market-rate housing.

The City continues to explore means to continue housing affordability for lower income households that would be impacted by the conversion of existing subsidized projects to market-rate housing.

Anticipated Impacts: Continued affordability of subsidized housing developments

Responsible Agencies: Community Services Department/Housing Division

Financing: Tax-increment set-aside; HOME; Proposition 1C; and other federal funds

Schedule: Undertake the following:

- Annually, track affordable housing developments with the intention of working with owners to extend affordability periods.
- If projects are at risk of conversion, contact non-profit and for-profit developers such as Community HousingWorks, National Core, Affirmed Construction, and Trinity Housing Group to explore the possibility of acquisition and extending affordability periods.
- If necessary, refer existing tenants to waiting lists of affordable developments as soon as possible to allow time for the waiting period and for relocation.

3. Homeownership and Rental Assistance

Program 3.1: First-Time Homebuyers/Home Entry Loan Program/Home Ownership Made Easy Program

Action: The Home Entry Loan Program is funded with federal HOME funds and serves households earning up to 80 percent of the San Diego County Area Median Income. The Homeownership Made Easy Program is funded with set-aside funds and serves households earning between 81 and 120 percent of the San Diego County Area Median Income.

Both programs provide a low-interest loan limited to the lesser of five percent or the purchase price of a maximum amount of \$25,000 that can be used toward the downpayment and/or for closing costs. Repayment of the City's loan is deferred until sale, transfer, or refinance of the unit or until residence is no longer occupied by qualified borrower.

Anticipated Impacts: Increased homeownership opportunities for lower and moderate income households – 400 households

Responsible Agency: Community Services Department/Housing Division

Financing: HOME funding, tax-increment set-aside

Schedule: Ongoing assistance; continue to promote programs via information on City website and public counters

Program 3.2: First-Time Homebuyers - Mortgage Credit Certificates

Action: The San Diego Regional Mortgage Credit Certificate (MCC) Program allows qualified first-time homebuyers to reduce their federal income tax by up to 20 percent of the annual interest paid on a mortgage loan. With less being paid in taxes, the homebuyer's net earnings increase, enabling him/her to more easily qualify for a mortgage loan. This program involves the cooperation of the City, County and lenders in a partnership to provide affordable housing to first-time homebuyers. The City will continue to promote the program, where possible, through the media and by distributing brochures at City Hall and off-site locations such as the East Valley Community Center, the Library and porch events.

Anticipated Impacts: Additional homeownership opportunities for lower and moderate income households – 20 households

Responsible Agency: Community Services Department/Housing Division

Financing: MCC federal tax credits

Schedule: Ongoing participation in MCC program; assistance in promoting the program on City website and public counters

Program 3.3: Rental Subsidy

Action: The City offers a number of rental subsidy programs for households with incomes not exceeding 50 percent of the Area Median Income. These include:

- **Housing Choice Vouchers:** This program ensures that households earning less than 50 percent of the Area Median Income would spend less than 30 percent of income for rent. This program is administered by the San Diego County Housing Authority on behalf of the City via a participation agreement.
- **Rent Subsidy for Senior and Disabled:** The City also offers rent subsidies for seniors and persons who are certified as permanently disabled. This program has two components:
 - **Participating Apartment Complexes:** Eligible household may receive a monthly rent subsidy of \$120 toward rents at the participating apartment complexes. As of June 2011, there are eight participating complexes.
 - **Participating Mobilehome Parks:** Eligible household may receive a monthly rent subsidy of \$100 toward rents at the participating apartment complexes. As of June 2011, there are 14 participating mobilehome parks.

Anticipated Impacts: Rental Assistance for very low income households – 1,200 households with Housing Choice Vouchers; 150 senior/disabled households with apartment rent subsidies; 150 senior/disabled households with mobilehome park rent subsidies

Responsible Agencies: Community Services Department/Housing Division; San Diego County Housing Authority

Financing: HUD Section 8 Vouchers; tax-increment set-aside

Schedule: Continue to offer Housing Choice Vouchers and rent subsidies at apartment complexes and mobilehome parks:

- Continue to market program on City website and at public counters.
- Annually renew and solicit participation with mobilehome parks and apartment complexes that meet Housing Quality Standards.

Program 3.4: Mobilehome Park Conversion

Action: The City has adopted a procedure by ordinance to assist occupants involved in the conversion of mobilehome parks to resident ownership or alternative uses. The assistance responds to requests of recognized mobilehome resident organizations for assistance in the conversion of mobilehome parks to resident ownership.

Anticipated Impacts: Continued mobilehome resident ownership opportunities for lower income residents.

Responsible Agency: Community Services Department/Housing Division; Community Development Department/Planning Division

Financing: Departmental budget for staff support

Schedule: Ongoing

Program 3.5: Mobilehome Rent Review

Action: The City passed, by initiative, an ordinance to review proposed increases in rents in mobilehome parks. The Rent Review Board considers such requests with the objective of maintaining affordability of the units.

Anticipated Impacts: Stabilized rents for mobilehome residents, many of whom are lower income

Responsible Agencies: Community Services Department/Housing Divisions; Rent Review Board

Financing: Departmental budget

Schedule: Ongoing

Program 3.6: Fair Housing

Action: The City of Escondido receives CDBG and HOME funding from HUD and is required to certify that the City will actively engage in furthering fair housing for all residents. This specifically involves: Conducting at the beginning of each five-year cycle an analysis of impediments to fair housing choice; carrying out actions to overcome the effects of identified impediments; and, maintaining records that provide available information and reports, including the analysis of impediments. The City has made a strong commitment to the provision of fair housing in the community. The goal of the City's fair housing efforts is to affirmatively further fair housing through specific education outreach and monitoring activities.

The City currently contracts with the North County Lifeline to provide fair housing and landlord/tenant mediation services to residents in Escondido. Information regarding Fair Housing will continue to be distributed through the media and at various locations, as discussed under Program 5.2 (Housing Information and Referral).

Anticipated Impacts: Continued enforcement of the Fair Housing Plan which will reduce or prevent discrimination in housing and disputes between landlords and tenants

Responsible Agencies: Community Services Department/Housing Division; fair housing service provider (North County Lifeline)

Financing: CDBG; program application fees

Schedule: Ongoing; information regarding the program will be dispersed at various locations such as City Hall, the East Valley Community Center, the Joslyn Senior Center, and Interfaith Community Services

4. Governmental Constraints

Program 4.1: Emergency Shelters

Action: Recent changes to State law mandate the Housing Element address the provision of housing for the homeless. Specifically, local jurisdictions must identify a zone where year-round emergency shelters are permitted by right. "Emergency shelter" means housing with minimal supportive services for homeless persons that is limited to occupancy of six months or less by a homeless person (Section 50801 of the California Health and Safety Code).

The City of Escondido's Zoning Code does not explicitly address emergency shelters. The City will amend its Zoning Code within one year of adoption of the Housing Element to permit homeless shelters by right, without discretionary review, within the Hospital Professional (HP) zone, consistent with State law. The City can establish objective standards that include all of the following:

- Maximum number of beds or persons permitted to be served nightly by the facility.
- Off-street parking based upon demonstrated need, provided that standards do not require more parking for emergency shelters than for other residential or commercial uses within the same zone.
- Size and location of exterior and interior onsite waiting and client intake areas.
- Provision of onsite management.
- Proximity to other emergency shelters, provided that emergency shelters are not required to be more than 300 feet apart.
- The length of stay
- Lighting
- Security during hours that the emergency shelter is in operation.

Anticipated Impacts: Provision of shelter for individuals and families with special needs

Responsible Agency: Community Development Department/Planning Division

Financing: Departmental budget

Schedule: Within one year of the adoption of the Housing Element

Program 4.2: Transitional/Supportive Housing

Action: The current Escondido Zoning Code provides for transitional and permanent supportive housing, with on-site services, as licensed residential care facilities. They are permitted by right in the General Commercial and the Hospital Professional zones, and with a Conditional Use Permit in all residential zones. Facilities with six or fewer residents are also permitted by right in all residential zones. Additionally, where no on-site services are involved, uses are permitted by right in apartments and single-family homes in all residential zones.

The Zoning Code will be amended to differentiate transitional/supportive housing that is operated as group quarters (such as residential care facilities) versus that is operated as a regular housing development. For transitional/supportive housing facilities that operate as group quarters, such facilities will be permitted as residential care facilities. Potential conditions for approval of large residential care facilities (for more than six persons) as transitional/supportive housing may include hours of operation, security, loading requirements, noise regulations, and restrictions on loitering. Conditions would be similar to those for other similar uses and would not serve to constrain the development of such facilities. For transitional/supportive housing facilities that operate as regular housing developments, such uses will be permitted by right where housing is otherwise permitted (regardless of size or presence of on-site services).

Anticipated Impacts: Increased housing opportunities for persons with special needs

Responsible Agencies: Community Development Department/Planning Division

Financing: Departmental budget

Schedule: Amend Zoning Ordinance within one year of Housing Element adoption

Program 4.3: Senior Housing Ordinance

Action: The City has adopted a Senior Housing Ordinance whereby senior housing is permitted as a conditional use in R2, R3, and R4 zones. To facilitate senior housing development, the City will amend the Zoning Ordinance to establish specific development standards for senior housing and permit senior housing by right where housing is permitted.

Anticipated Impacts: Increased housing opportunities for seniors

Responsible Agencies: Community Development Department/Planning Division

Financing: Departmental budget

Schedule: Amend Zoning Ordinance within one year of Housing Element adoption

5. Administrative Programs

Program 5.1: Affordable Housing Financing

Action: The City will continue to pursue a variety of funding sources to support the construction, acquisition/rehabilitation, and preservation of affordable housing in the community. Funding sources may include federal, state, local, and other private housing programs, including but not limited to:

- HUD Section 202/811
- Low Income Housing Tax Credits (LIHTC)
- Single-family and multi-family mortgage revenue bonds
- State Proposition 1C housing grants (e.g., Infill Housing, Transit-Oriented Development)
- California Housing Finance Agency
- CalHome

Anticipated Impacts: Acquisition, rehabilitation, preservation, or construction of affordable housing for lower and moderate income households.

Responsible Agency: Community Development Commission/Housing Division

Financing: Departmental budget

Schedule: At least once a year explore funding availability under various programs and pursue funding if appropriate

Program 5.2: Housing Information and Referral

Action: The City will continue to update public information which identifies the City's housing programs and provides an opportunity to market those programs. These updates will benefit the targeted clientele. Information is and will be provided in many formats such as brochures, mailers, referral cards, television, utility bills, newspaper, neighborhood meetings, and on the City's website.

Anticipated Impacts: More effective and targeted housing programs (especially for lower income households)

Responsible Agencies: Community Development Commission/Housing Division

Financing: Tax increment set-aside

Schedule: Ongoing

Table 55: Summary of Quantified Objectives (2013-2020)

	Extremely Low	Very Low	Low	Moderate	Above Moderate	Total
New Construction (RHNA)	460	582	791	733	1,609	4,175
Affordable Housing Construction	50	100	150	---	---	400
Rehabilitation						
Rehabilitation Assistance	20	30	30	---	---	80
Acquisition/Rehabilitation	30	70	100	---	---	200
At-Risk Housing Preservation	99	99	---	---	---	198
Homebuyer Assistance						
Homebuyer Loan Programs	---	30	120	250	---	400
MCC	---	---	---	20	---	20
Rent Subsidies						
HCV (Section 8)	600	600	---	---	---	1,200
Seniors/Disabled	150	150	---	---	---	300

Appendix A: Public Participation

Public Meetings:

Planning Commission - July 26, 2011

City Council Meeting: August, 2011

To publicize these meetings, the City published notices in the newspaper and the notices were placed on the front page of the City's website for one week. The notices and staff reports were all sent to a list of individuals, agencies, other community stakeholders for the General Plan update, and a list of affordable housing developers and operators, including:

- Affirmed Housing
- AMCAL Housing
- Community Housing Works
- ConAm Management Corporation
- Corporation for Supportive Housing
- Enhanced Affordable
- Hitzke Development
- Housing San Diego
- Interfaith Services
- National Community Renaissance (National CORE)
- North County Lifeline
- North County Serenity House
- San Diego Habitat for Humanity
- Solari Enterprise
- Solutions for Change
- St. Clares Home
- The John Stewart Company
- Trinity Housing
- Urban Housing Communities

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FOUNDER

ALBERT E. WALKOE
(1925-2007)

August 10, 2011

Sam Abed, Mayor
City of Escondido
201 N. Broadway
Escondido, CA 92025

Via Facsimile (760) 735-5782
And E-mail (City Council and City Clerk)

RE: Item 17- 2013-20 Housing Element

Dear Mayor Abed:

AHA opposes the City's hasty and premature consideration of its Housing Element. The region has yet to even adopt the RHNA Allocation for the next planning period. SANDAG's comment period for the proposed methodology just ended on July 28, 2011. Nor has the City sufficiently engaged the community in the update process, as required by State Law.

Escondido held its lone public workshop regarding the Housing Element on July 26th. It was attended by only 2 people. Perhaps this was due to the lateness of the outreach. I received an e-mail mid-day on the 21st, just 2½ working days before the workshop. Or perhaps it was because the actual Draft Housing Element was not distributed. Instead, only a Staff Report was released which described the City's housing programs in the most general terms, containing no quantified objectives or time-line, and identifying no funding sources or responsible department. There was little to comment on.

State law requires that the City "make a diligent effort to achieve public participation of all economic segments of the community in the development of the housing element". Government Code §65583(c)(7). The program of actions must demonstrate that Escondido took affirmative steps to get input from low income persons and their representatives as well as other members of the community in *the development* of the housing element. This means that input should be sought, received and considered *before* the draft housing element is completed. Examples of ways of achieving public participation include setting up citizen advisory committees, the circulation of initial drafts to interested persons and groups, and targeted outreach such as presentations to community groups, public meetings and public service announcements. The City's failure to do this shows contempt for this process and those it was meant to serve.

Sincerely,

Catherine A.
Rodman

Digitally signed by Catherine A. Rodman
DN: cn=Catherine A. Rodman, o=Affordable Housing
Advocates, ou=Affordable Housing Advocates, email=rodman@affordablehousingadvocates.org, c=CA
Date: 2011.08.10 14:05:00 -0700

Catherine A. Rodman
Attorney at Law

Enclosure(s) E-mail and Staff Report to Planning Commission Re HE Workshop
cc: City Council, Cathy E. Cresswell and Paul McDougall, State HCD

www.affordablehousingadvocates.org

Appendix B: Sites Inventory

This appendix provides the parcel-level information for the City’s sites inventory, including sites within the Downtown Specific Plan, the South Escondido Boulevard Area Plan, and sites available in other city areas. At the end of the appendix are also maps that illustrate the City’s General Plan land use policy and zoning.

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2292811200	0.14	S-P	45 du/ac	0	6	5	5	SPA9	Vacant and Undeveloped Land	Vac adj to car rental
2293030700	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Other Retail Trade and Strip	Vac adj to James bldg
2293102200	0.32	S-P	45 du/ac	0	14	11	11	SPA9	Vacant and Undeveloped Land	Penn/Ivy
2293102500	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Vacant and Undeveloped Land	
2293103000	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Vacant and Undeveloped Land	
2294011500	0.49	S-P	45 du/ac	0	21	16	16	SPA9	Vacant and Undeveloped Land	Vacant Grand/Quince
2294320900	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Vacant and Undeveloped Land	Vacant Ivy/Grand
2294321000	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Vacant and Undeveloped Land	Vacant Ivy/Grand
2294321100	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Vacant and Undeveloped Land	Vacant Ivy/Grand
2294321200	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Vacant and Undeveloped Land	Vacant Ivy/Grand
2294321300	0.17	S-P	45 du/ac	1	7	5	4	SPA9	Vacant and Undeveloped Land	Vacant Ivy/Valley
2294322400	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	Vacant
2294322500	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	Vacant
2294322600	0.14	S-P	45 du/ac	0	6	5	5	SPA9	Office (Low-Rise)	Vacant
2330220800	0.14	S-P	45 du/ac	0	6	5	5	SPA9	Vacant and Undeveloped Land	
Vacant	2.53			1	107	80	79			
2330711800	0.24	S-P	45 du/ac	1	10	8	7	SPA9	Arterial Commercial	nonconf auto sales
2331721200	0.17	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	SFR
2292721000	2.13	S-P	45 du/ac	0	96	72	72	SPA9	Arterial Commercial	Rite Aid
2292810200	0.09	S-P	45 du/ac	0	4	3	3	SPA9	Service Station	
2292810300	0.19	S-P	45 du/ac	0	8	6	6	SPA9	Service Station	
2292810400	0.19	S-P	45 du/ac	0	8	6	6	SPA9	Service Station	Wash/Escondido
2292810500	0.20	S-P	45 du/ac	1	8	6	5	SPA9	Other Retail Trade and Strip	
2292810600	0.17	S-P	45 du/ac	1	7	5	4	SPA9	Other Retail Trade and Strip	Wash/Esc old restaurant
2292810700	0.20	S-P	45 du/ac	0	9	7	7	SPA9	Other Retail Trade and Strip	Wash behind Woodward

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2292810800	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Other Retail Trade and Strip	
2292811100	0.32	S-P	45 du/ac	1	14	11	10	SPA9	Service Station	225 Wash
2292811500	0.24	S-P	45 du/ac	1	10	8	7	SPA9	Other Retail Trade and Strip	Freestanding part of classical
2292811700	0.10	S-P	45 du/ac	0	4	3	3	SPA9	Other Retail Trade and Strip	
2292811800	0.17	S-P	45 du/ac	1	7	5	4	SPA9	Other Retail Trade and Strip	
2292812000	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Other Retail Trade and Strip	
2292812100	0.19	S-P	45 du/ac	0	8	6	6	SPA9	Arterial Commercial	
2292812200	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2292812600	0.45	S-P	45 du/ac	0	20	15	15	SPA9	Other Retail Trade and Strip	Old 215 w wash Supply bus
2292812700	0.29	S-P	45 du/ac	0	12	9	9	SPA9	Arterial Commercial	Older commercial bldg
2292812800	0.34	S-P	45 du/ac	0	15	11	11	SPA9	Arterial Commercial	Sushiyama
2292812900	0.25	S-P	45 du/ac	0	11	8	8	SPA9	Other Retail Trade and Strip	Wash behind Woodward
2292813000	0.31	S-P	45 du/ac	0	14	11	11	SPA9	Arterial Commercial	Off woodward
2292813100	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2292813200	0.10	S-P	45 du/ac	0	4	3	3	SPA9	Service Station	sec Wash/Esc nonconf
2292910500	0.12	S-P	45 du/ac	1	5	4	3	SPA9	Arterial Commercial	
2292911500	0.69	S-P	45 du/ac	0	31	23	23	SPA9	Arterial Commercial	Enterprise Wash Ave
2292912100	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2292912300	0.18	S-P	45 du/ac	1	8	6	5	SPA9	Office (Low-Rise)	
2292912400	0.77	S-P	45 du/ac	0	34	26	26	SPA9	Office (Low-Rise)	NWC Broadway/Woodward
2292912600	0.49	S-P	45 du/ac	1	21	16	15	SPA9	Office (Low-Rise)	Woodward church
2292912700	0.80	S-P	45 du/ac	1	36	27	26	SPA9	Office (Low-Rise)	woodward church
2293010300	0.15	S-P	45 du/ac	2	6	5	3	SPA9	Single Family Multiple-Units	
2293010400	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Single Family Detached	
2293010500	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Single Family Detached	small, old SFR
2293011200	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Single Family Detached	
2293020100	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Single Family Detached	
2293020600	0.20	S-P	45 du/ac	2	9	7	5	SPA9	Single Family Multiple-Units	
2293020700	0.18	S-P	45 du/ac	1	8	6	5	SPA9	Single Family Detached	
2293020800	0.19	S-P	45 du/ac	1	8	6	5	SPA9	Single Family Detached	Waverly
2293021000	0.10	S-P	45 du/ac	1	4	3	2	SPA9	Single Family Detached	

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2293021600	0.07	S-P	45 du/ac	1	3	2	1	SPA9	Single Family Detached	
2293030600	0.39	S-P	45 du/ac	0	17	13	13	SPA9	Other Retail Trade and Strip	Old Rob James bldg
2293030800	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Other Retail Trade and Strip	
2293030900	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Other Retail Trade and Strip	
2293031000	0.26	S-P	45 du/ac	0	11	8	8	SPA9	Other Retail Trade and Strip	
2293041300	0.22	S-P	45 du/ac	0	9	7	7	SPA9	Arterial Commercial	Older commercial
2293041400	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Other Retail Trade and Strip	Bus Pkg Boys Girls Club
2293041500	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Other Retail Trade and Strip	Bus Pkg Boys Girls Club
2293041600	0.19	S-P	45 du/ac	0	8	6	6	SPA9	Other Retail Trade and Strip	Discount Tire
2293041700	0.29	S-P	45 du/ac	0	13	10	10	SPA9	Other Retail Trade and Strip	Parking for discount Tire
2293042300	0.51	S-P	45 du/ac	1	22	17	16	SPA9	Arterial Commercial	Evans Tires
2293042500	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Other Retail Trade and Strip	
2293042700	0.10	S-P	45 du/ac	1	4	3	2	SPA9	Single Family Detached	
2293042900	0.29	S-P	45 du/ac	0	13	10	10	SPA9	Arterial Commercial	
2293043900	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	transm shop Waverly
2293044000	0.23	S-P	45 du/ac	1	10	8	7	SPA9	Single Family Detached	Waverly
2293044100	0.21	S-P	45 du/ac	1	9	7	6	SPA9	Single Family Detached	
2293044200	0.61	S-P	45 du/ac	0	27	20	20	SPA9	Other Retail Trade and Strip	Salv Army
2293101100	0.20	S-P	45 du/ac	3	9	7	4	SPA9	Multi-Family Residential	
2293101200	0.22	S-P	45 du/ac	1	9	7	6	SPA9	Single Family Detached	
2293101400	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Juniper/penn older commercial
2293101500	0.17	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2293101600	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2293101700	0.17	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2293102000	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2293102300	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2293102400	0.18	S-P	45 du/ac	0	7	5	5	SPA9	Single Family Detached	
2293102600	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Penn
2293103100	0.44	S-P	45 du/ac	0	19	14	14	SPA9	Arterial Commercial	Korner Market Penn
2293104500	0.33	S-P	45 du/ac	3	14	11	8	SPA9	Arterial Commercial	Old triplex
2293107800	0.49	S-P	45 du/ac	0	22	17	17	SPA9	Arterial Commercial	Red Cross

Table B-1: Downtown Specific Plan Area

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2293108300	0.27	S-P	45 du/ac	0	12	9	9	SPA9	Office (Low-Rise)	Small office bldg E Wash
2293108400	0.37	S-P	45 du/ac	1	16	12	11	SPA9	Office (Low-Rise)	Commercial wash/Juniper
2293108700	0.28	S-P	45 du/ac	4	12	9	5	SPA9	Single Family Multiple-Units	
2293108900	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2293110100	0.18	S-P	45 du/ac	4	8	6	2	SPA9	Multi-Family Residential	
2293110800	0.18	S-P	45 du/ac	4	8	6	2	SPA9	Multi-Family Residential	
2293110900	0.19	S-P	45 du/ac	4	8	6	2	SPA9	Multi-Family Residential	
2293111000	0.40	S-P	45 du/ac	4	18	14	10	SPA9	Multi-Family Residential	Lansing Cr
2293111300	0.27	S-P	45 du/ac	4	12	9	5	SPA9	Multi-Family Residential	
2293311000	1.48	S-P	45 du/ac	0	66	50	50	SPA9	Warehousing	Quince moving/storage
2293311600	2.57	S-P	45 du/ac	0	115	86	86	SPA9	Warehousing	Little Mo Storage
2293311700	0.92	S-P	45 du/ac	1	41	31	30	SPA9	Office (Low-Rise)	Carrows W Valley
2293322000	0.12	S-P	45 du/ac	1	5	4	3	SPA9	Community Shopping Center	
2293322300	0.10	S-P	45 du/ac	1	4	3	2	SPA9	Community Shopping Center	
2293610500	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Parking Lot - Surface	
2293610600	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Parking Lot - Surface	Owned by NC Times
2293610900	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Single Family Detached	Sm commercial office
2293611100	0.42	S-P	45 du/ac	0	19	14	14	SPA9	Religious Facility	Run down Broadway/Penn
2293611200	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2293620100	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Parking Lot - Surface	NC Times parking lot
2293620200	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Parking Lot - Surface	NC Times parking lot
2293620300	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Parking Lot - Surface	NC Times parking lot
2293620400	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Park - Active	Owned by NC Times
2293620500	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Park - Active	At NC times site
2293620600	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2293620700	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Single Family Detached	
2293820700	0.09	S-P	45 du/ac	0	4	3	3	SPA9	Office (Low-Rise)	
2293820900	0.25	S-P	45 du/ac	0	11	8	8	SPA9	Office (Low-Rise)	freestanding ATM
2293821000	0.72	S-P	45 du/ac	0	32	24	24	SPA9	Office (Low-Rise)	SD Co CU
2293821300	0.19	S-P	45 du/ac	1	8	6	5	SPA9	Other Retail Trade and Strip	
2293821400	0.11	S-P	45 du/ac	1	5	4	3	SPA9	Other Retail Trade and Strip	

Table B-1: Downtown Specific Plan Area

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2293910700	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Light Industry - General	
2293920300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Other Retail Trade and Strip	
2293920400	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Other Retail Trade and Strip	Old boxing gym Penn
2293921000	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Other Retail Trade and Strip	
2293921100	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Other Retail Trade and Strip	
2293921200	0.09	S-P	45 du/ac	0	3	2	2	SPA9	Other Retail Trade and Strip	
2293921300	0.23	S-P	45 du/ac	1	10	8	7	SPA9	Other Retail Trade and Strip	Old commercial/design
2293921700	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Other Retail Trade and Strip	Comm penn/Ivy
2293921800	0.24	S-P	45 du/ac	1	10	8	7	SPA9	Other Retail Trade and Strip	old comm Ivy/Valley
2293921900	0.25	S-P	45 du/ac	0	11	8	8	SPA9	Other Retail Trade and Strip	Joor muffler
2293922000	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Automobile Dealership	Ivy/Valley auto sales
2293922100	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Automobile Dealership	
2293922200	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Other Retail Trade and Strip	
2293922300	0.31	S-P	45 du/ac	1	13	10	9	SPA9	Other Retail Trade and Strip	Old comm Penn
2293922400	0.33	S-P	45 du/ac	1	14	11	10	SPA9	Other Retail Trade and Strip	Rapid transmissions
2294010200	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	Knights of Columbus
2294010300	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Office (Low-Rise)	
2294011400	0.16	S-P	45 du/ac	0	6	5	5	SPA9	Industrial Park	
2294011600	0.50	S-P	45 du/ac	0	22	17	17	SPA9	Office (Low-Rise)	Equip rentals
2294011700	0.47	S-P	45 du/ac	0	21	16	16	SPA9	Industrial Park	Old gift shop Valley Pky
2294011800	0.46	S-P	45 du/ac	1	20	15	14	SPA9	Industrial Park	Bank Quince/Valley
2294020700	0.18	S-P	45 du/ac	1	8	6	5	SPA9	Arterial Commercial	Bank CCP/Valley Pkwy
2294021000	0.94	S-P	45 du/ac	0	42	32	32	SPA9	Arterial Commercial	Grand/orange/CCP vacant
2294110900	0.09	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2294111300	0.09	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2294111400	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2294111500	0.23	S-P	45 du/ac	0	10	8	8	SPA9	Arterial Commercial	Bank Orange/Grand
2294112700	0.70	S-P	45 du/ac	0	31	23	23	SPA9	Arterial Commercial	Pkg 355 w Valley Pkwy
2294120400	0.24	S-P	45 du/ac	0	10	8	8	SPA9	Arterial Commercial	Freestanding Eye Dr
2294120500	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2294120600	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2294121000	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2294121700	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Office (Low-Rise)	
2294122400	0.88	S-P	45 du/ac	0	39	29	29	SPA9	Office (Low-Rise)	Warren bldg
2294210100	0.23	S-P	45 du/ac	0	10	8	8	SPA9	Parking Lot - Surface	City lot Valley/Maple
2294210200	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Parking Lot - Surface	City lot Valley/Maple
2294210300	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Parking Lot - Surface	
2294210400	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Parking Lot - Surface	
2294210500	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Parking Lot - Surface	City lot Valley/Maple
2294210600	0.24	S-P	45 du/ac	0	10	8	8	SPA9	Parking Lot - Surface	City lot Valley/Maple
2294210700	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Parking Lot - Surface	
2294210800	0.38	S-P	45 du/ac	0	17	13	13	SPA9	Arterial Commercial	Bank
2294210900	0.13	S-P	45 du/ac	0	5	4	4	SPA9	Arterial Commercial	Crone Grand/Broadway
2294211000	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	grand commercial
2294211100	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2294211200	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2294211400	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2294211500	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294211600	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	Grand Ave commercial
2294211700	0.09	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294211800	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	150 Grand
2294211900	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294212400	0.23	S-P	45 du/ac	1	10	8	7	SPA9	Arterial Commercial	nec Maple/Grand commercial
2294212500	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294220400	0.15	None	45 du/ac	0	6	5	5	SPA9	Arterial Commercial	Pkg lot Valley/Broadway
2294220500	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	Parking Valley/Kalmia
2294220600	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Arterial Commercial	Sm commercial Grand
2294220800	0.24	S-P	45 du/ac	1	10	8	7	SPA9	Arterial Commercial	Grand/Kalmia
2294221000	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2294221100	0.09	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294221200	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	Grand Ave commercial
2294221300	0.07	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	grand commercial

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2294221400	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2294221700	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294221800	0.21	S-P	45 du/ac	0	9	7	7	SPA9	Arterial Commercial	Pkg Broadway/grand
2294222000	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2294222100	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294222300	0.11	S-P	45 du/ac	0	5	4	4	SPA9	Arterial Commercial	
2294222400	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2294222500	0.07	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	Grand Ave commercial
2294222600	0.52	S-P	45 du/ac	1	23	17	16	SPA9	Arterial Commercial	Bank
2294310100	0.14	S-P	45 du/ac	1	6	5	4	SPA9	Arterial Commercial	
2294310200	0.02	S-P	45 du/ac	0	1	1	1	SPA9	Arterial Commercial	
2294310300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2294310700	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Older commercial bldg
2294310800	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294310900	0.40	S-P	45 du/ac	0	17	13	13	SPA9	Arterial Commercial	Pkg Juniper/Valley
2294311000	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2294311100	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Arterial Commercial	
2294311500	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	grand commercial
2294311600	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294311700	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294311800	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Grand/Kalmia
2294311900	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	downtown on Grand
2294312000	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	downtown on Grand
2294312100	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Arterial Commercial	
2294312200	0.31	S-P	45 du/ac	0	13	10	10	SPA9	Arterial Commercial	Pkg lot City owned
2294320600	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2294320700	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2294320800	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Office (Low-Rise)	Adj to Ivy/grand
2294321600	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Office (Low-Rise)	
2294321700	0.07	S-P	45 du/ac	0	3	2	2	SPA9	Office (Low-Rise)	
2294321800	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Office (Low-Rise)	

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2294321900	0.07	S-P	45 du/ac	1	3	2	1	SPA9	Office (Low-Rise)	
2294322000	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	Grand commercial
2294322100	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Office (Low-Rise)	
2294322700	0.10	S-P	45 du/ac	0	4	3	3	SPA9	Office (Low-Rise)	
2294322800	0.17	S-P	45 du/ac	1	7	5	4	SPA9	Office (Low-Rise)	
2294322900	0.33	S-P	45 du/ac	1	14	11	10	SPA9	Office (Low-Rise)	Older commercial
2294410500	0.32	S-P	45 du/ac	0	14	11	11	SPA9	Other Retail Trade and Strip	Car wash Ivy/Valley Pky
2294410800	0.32	S-P	45 du/ac	0	14	11	11	SPA9	Other Retail Trade and Strip	Charlie's rest
2294420100	0.10	S-P	45 du/ac	0	4	3	3	SPA9	Office (Low-Rise)	
2294420200	0.17	S-P	45 du/ac	3	7	5	2	SPA9	Office (Low-Rise)	
2294420300	0.18	S-P	45 du/ac	0	8	6	6	SPA9	Office (Low-Rise)	
2294420400	0.25	S-P	45 du/ac	4	11	8	4	SPA9	Single Family Multiple-Units	
2294420900	0.09	S-P	45 du/ac	0	3	2	2	SPA9	Office (Low-Rise)	
2294421000	0.14	S-P	45 du/ac	0	6	5	5	SPA9	Office (Low-Rise)	BestBuy carpets Grand
2294421600	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2294421700	0.53	S-P	45 du/ac	1	23	17	16	SPA9	Arterial Commercial	Neighborhood Healthcare
2294421800	0.39	S-P	45 du/ac	0	17	13	13	SPA9	Office (Low-Rise)	Med adj to hospital
2294610100	0.14	S-P	45 du/ac	1	6	5	4	SPA9	Arterial Commercial	
2294610400	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2294610500	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2294611200	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Parking 2nd
2294611300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Small commercial bldg
2294611600	0.32	S-P	45 du/ac	0	14	11	11	SPA9	Arterial Commercial	
2294611700	0.20	S-P	45 du/ac	1	8	6	5	SPA9	Arterial Commercial	
2294611800	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2294612000	0.25	S-P	45 du/ac	0	11	8	8	SPA9	Arterial Commercial	W/333 Grand antiques
2294612100	0.32	S-P	45 du/ac	1	14	11	10	SPA9	Arterial Commercial	Med Offices
2294612200	0.32	S-P	45 du/ac	1	14	11	10	SPA9	Arterial Commercial	2nd Ave commercial
2294620400	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2294621500	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Other Health Care	
2294622000	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Arterial Commercial	

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2294622100	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Sm older commercial
2294622400	0.32	S-P	45 du/ac	1	14	11	10	SPA9	Other Health Care	Office ValleyBld/Grand
2294710100	0.12	S-P	45 du/ac	0	5	4	4	SPA9	Arterial Commercial	
2294710200	0.07	S-P	45 du/ac	0	2	2	2	SPA9	Arterial Commercial	
2294710800	0.24	S-P	45 du/ac	0	10	8	8	SPA9	Other Health Care	Vacant
2294710900	0.13	S-P	45 du/ac	0	6	5	5	SPA9	Other Health Care	
2294711100	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Other Health Care	
2294711300	0.06	S-P	45 du/ac	0	2	2	2	SPA9	Arterial Commercial	
2294711400	0.10	S-P	45 du/ac	1	4	3	2	SPA9	Single Family Detached	
2294711500	0.25	S-P	45 du/ac	1	11	8	7	SPA9	Arterial Commercial	3rd/Juniper
2294711600	0.49	S-P	45 du/ac	0	22	17	17	SPA9	Arterial Commercial	Office 210 S Juniper
2294720400	0.10	S-P	45 du/ac	0	4	3	3	SPA9	Arterial Commercial	
2294720500	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Single Family Detached	
2294720600	0.21	S-P	45 du/ac	4	9	7	3	SPA9	Single Family Multiple-Units	fourplex S Ivy
2294720900	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Arterial Commercial	
2294721000	0.28	S-P	45 du/ac	1	12	9	8	SPA9	Arterial Commercial	Office Juniper
2294721100	0.68	S-P	45 du/ac	0	30	23	23	SPA9	Arterial Commercial	Comm Juniper/3rd/4th
2295010100	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Office (Low-Rise)	
2295010200	0.09	S-P	45 du/ac	1	3	2	1	SPA9	Single Family Detached	
2295010300	0.11	S-P	45 du/ac	0	4	3	3	SPA9	Office (Low-Rise)	Ivy/4th commercial
2295010400	0.10	S-P	45 du/ac	1	4	3	2	SPA9	Single Family Detached	
2295010500	0.13	S-P	45 du/ac	0	5	4	4	SPA9	Parking Lot - Surface	Pkg for 401 S Ivy
2295010600	0.17	S-P	45 du/ac	2	7	5	3	SPA9	Single Family Detached	
2295010700	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Single Family Detached	
2295010800	0.10	S-P	45 du/ac	1	4	3	2	SPA9	Single Family Detached	
2295010900	0.18	S-P	45 du/ac	1	8	6	5	SPA9	Single Family Detached	
2321000800	3.04	S-P	45 du/ac	0	137	103	103	SPA9	Rail Station/Transit Center	Concept Plan prepared
2321001100	3.42	S-P	45 du/ac	0	154	115	115	SPA9	Rail Station/Transit Center	Concept Plan prepared
2321001900	1.98	S-P	45 du/ac	0	89	67	67	SPA9	Rail Station/Transit Center	Concept Plan prepared
2321003500	0.57	S-P	45 du/ac	0	26	19	19	SPA9	Rail Station/Transit Center	Concept Plan prepared
2321101700	1.07	S-P	45 du/ac	0	48	36	36	SPA9	Industrial Park	Orowheat

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2330220100	0.25	S-P	45 du/ac	0	11	8	8	SPA9	Service Station	Nonconf gas station
2330220200	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Service Station	
2330220300	0.09	S-P	45 du/ac	0	4	3	3	SPA9	Office (Low-Rise)	Older comm Grand/Quince
2330220500	0.17	S-P	45 du/ac	1	7	5	4	SPA9	Office (Low-Rise)	
2330220600	0.17	S-P	45 du/ac	2	7	5	3	SPA9	Office (Low-Rise)	
2330220700	0.29	S-P	45 du/ac	1	12	9	8	SPA9	Office (Low-Rise)	Restaurant Pine/Grand
2330220900	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Office (Low-Rise)	
2330221600	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Office (Low-Rise)	
2330222000	0.14	S-P	45 du/ac	0	6	5	5	SPA9	Office (Low-Rise)	
2330410201	0.23	S-P	45 du/ac	1	10	8	7	SPA9	Arterial Commercial	
2330410203	0.23	S-P	45 du/ac	1	10	8	7	SPA9	Arterial Commercial	
2330410500	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2330410600	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2330410900	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330411200	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330411600	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Grand - Hanafin
2330411700	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330411800	0.31	S-P	45 du/ac	0	13	10	10	SPA9	Arterial Commercial	2nd/Orange Hanafin
2330420100	0.32	S-P	45 du/ac	0	14	11	11	SPA9	Arterial Commercial	
2330420200	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	Grand Ave commercial
2330420300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330420400	0.07	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330420700	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2330420800	0.39	S-P	45 du/ac	0	17	13	13	SPA9	Arterial Commercial	Bank
2330420900	0.05	S-P	45 du/ac	0	2	2	2	SPA9	Arterial Commercial	
2330421000	0.26	S-P	45 du/ac	0	11	8	8	SPA9	Arterial Commercial	Bank parking lot
2330421100	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Pkg for Union Bank
2330421200	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330421300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Commercial Hanafin
2330421400	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2330421500	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2330421600	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330421700	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330520300	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2330520400	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330520600	0.09	S-P	45 du/ac	0	4	3	3	SPA9	Arterial Commercial	
2330521300	0.33	S-P	45 du/ac	0	14	11	11	SPA9	Arterial Commercial	
2330521400	1.25	S-P	45 du/ac	1	56	42	41	SPA9	Arterial Commercial	Ross office bldg
2330521500	0.22	S-P	45 du/ac	0	9	7	7	SPA9	Arterial Commercial	S Esc Discount Tire
2330610100	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2330610300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	Parking lot
2330610400	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Office (Low-Rise)	
2330611200	0.10	S-P	45 du/ac	0	4	3	3	SPA9	Arterial Commercial	
2330611300	0.22	S-P	45 du/ac	0	9	7	7	SPA9	Arterial Commercial	
2330611400	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2330612400	0.39	S-P	45 du/ac	0	17	13	13	SPA9	Office (Low-Rise)	Commercial Escondido/2nd
2330612500	0.42	S-P	45 du/ac	0	18	14	14	SPA9	Office (Low-Rise)	
2330612600	0.71	S-P	45 du/ac	1	31	23	22	SPA9	Arterial Commercial	swc Grand/Maple
2330620100	0.33	S-P	45 du/ac	0	14	11	11	SPA9	Arterial Commercial	sec Maple/Grand
2330620200	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2330620300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330620400	0.09	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330620500	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330620600	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330620700	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330620900	0.14	S-P	45 du/ac	0	6	5	5	SPA9	Arterial Commercial	grand commercial
2330621001	1.26	S-P	45 du/ac	0	56	42	42	SPA9	Arterial Commercial	H Johnson bldg
2330621100	0.07	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	Grand Restaurant
2330621200	0.07	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2330710100	1.30	S-P	45 du/ac	0	58	44	44	SPA9	Office (Low-Rise)	BofA
2330710200	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Single Family Detached	
2330710300	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Arterial Commercial	

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2330711600	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Single Family Detached	
2330711900	0.32	S-P	45 du/ac	0	14	11	11	SPA9	Arterial Commercial	nonconf auto sales
2330720601	0.31	S-P	45 du/ac	0	13	10	10	SPA9	Office (Low-Rise)	Parking lot for florist
2330720700	0.14	S-P	45 du/ac	0	6	5	5	SPA9	Office (Low-Rise)	
2330720800	0.31	S-P	45 du/ac	0	13	10	10	SPA9	Office (Low-Rise)	Mortuary
2330720900	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Office (Low-Rise)	
2330721000	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2330721300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	Pkg lot 2nd/Maple
2330721400	0.67	S-P	45 du/ac	0	29	22	22	SPA9	Office (Low-Rise)	Parking lot Maple/2nd
2330810100	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330810200	0.09	S-P	45 du/ac	1	4	3	2	SPA9	Arterial Commercial	
2330810400	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	grand commercial
2330810500	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	grand commercial
2330810600	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2330810700	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2330810800	0.09	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330810900	0.07	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330811000	0.09	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2330811400	0.13	S-P	45 du/ac	0	5	4	4	SPA9	Arterial Commercial	
2330811500	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330811600	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Arterial Commercial	
2330812000	0.11	S-P	45 du/ac	0	5	4	4	SPA9	Arterial Commercial	
2330812300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Grand commercial
2330812400	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	Grand commercial
2330812500	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	Grand restaurant
2330820300	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330820400	0.09	S-P	45 du/ac	1	4	3	2	SPA9	Arterial Commercial	
2330820500	0.08	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2330820600	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	Grand commercial
2330820700	0.09	S-P	45 du/ac	1	3	2	1	SPA9	Arterial Commercial	
2330820800	0.04	S-P	45 du/ac	0	1	1	1	SPA9	Arterial Commercial	

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2330820900	0.04	S-P	45 du/ac	0	1	1	1	SPA9	Arterial Commercial	
2330821000	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330821100	0.09	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330821400	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330821500	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Arterial Commercial	Juniper/2nd older commercial
2330821600	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330821700	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Vac Parking Lot
2330821800	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2330821900	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Arterial Commercial	
2330822000	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Vac Parking Lot
2330822100	0.09	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2330822400	0.25	S-P	45 du/ac	1	11	8	7	SPA9	Arterial Commercial	
2330910100	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Arterial Commercial	
2330920100	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2330920200	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2330920300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2330920800	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2330920900	0.32	S-P	45 du/ac	0	14	11	11	SPA9	Office (Low-Rise)	Juniper/3rd commercial
2331220700	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2331320100	0.13	S-P	45 du/ac	1	5	4	3	SPA9	Single Family Detached	
2331320500	0.17	S-P	45 du/ac	2	7	5	3	SPA9	Single Family Multiple-Units	
2331320600	0.15	S-P	45 du/ac	2	6	5	3	SPA9	Single Family Multiple-Units	
2331320700	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2331320800	0.17	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Glennies 5th
2331320900	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2331321300	0.50	S-P	45 du/ac	0	22	17	17	SPA9	Arterial Commercial	Gas station
2331410100	0.17	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2331410200	0.17	S-P	45 du/ac	2	7	5	3	SPA9	Single Family Multiple-Units	3rd/orange
2331410300	0.16	S-P	45 du/ac	2	7	5	3	SPA9	Single Family Multiple-Units	
2331410400	0.17	S-P	45 du/ac	3	7	5	2	SPA9	Single Family Multiple-Units	Old triplex
2331410500	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2331410600	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	
2331410800	0.16	S-P	45 du/ac	2	7	5	3	SPA9	Single Family Multiple-Units	
2331410900	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Single Family Detached	
2331411100	0.16	S-P	45 du/ac	2	7	5	3	SPA9	Single Family Multiple-Units	
2331411300	0.16	S-P	45 du/ac	2	6	5	3	SPA9	Single Family Multiple-Units	
2331411400	0.08	S-P	45 du/ac	0	3	2	2	SPA9	Arterial Commercial	
2331411500	0.21	S-P	45 du/ac	3	9	7	4	SPA9	Arterial Commercial	
2331411600	0.31	S-P	45 du/ac	1	14	11	10	SPA9	Service Station	Nonconforming
2331420700	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Arterial Commercial	
2331420800	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	1 SFR
2331420900	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2331421000	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2331421100	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Parking Lot - Surface	
2331421300	0.32	S-P	45 du/ac	1	14	11	10	SPA9	Arterial Commercial	Auto sales nonconf
2331500500	0.32	S-P	45 du/ac	0	14	11	11	SPA9	Service Station	
2331500600	0.09	S-P	45 du/ac	1	4	3	2	SPA9	Arterial Commercial	
2331500900	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Arterial Commercial	
2331501000	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Arterial Commercial	Esc/5th
2331502300	1.12	S-P	45 du/ac	1	50	38	37	SPA9	Religious Facility	4th/orange
2331502405	0.32	S-P	45 du/ac	1	14	11	10	SPA9	Other Retail Trade and Strip	Office bldg
2331620100	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Office (Low-Rise)	
2331620400	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Office (Low-Rise)	
2331620500	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Office (Low-Rise)	
2331620600	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Office (Low-Rise)	
2331621200	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	
2331621300	0.16	S-P	45 du/ac	2	7	5	3	SPA9	Single Family Multiple-Units	
2331621500	0.11	S-P	45 du/ac	0	4	3	3	SPA9	Office (Low-Rise)	
2331622100	0.33	S-P	45 du/ac	0	14	11	11	SPA9	Office (Low-Rise)	First United Meth church
2331720300	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Single Family Detached	
2331720800	0.26	S-P	45 du/ac	0	11	8	8	SPA9	Religious Facility	Broadway/5th church
2331721000	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	

Table B-1: Downtown Specific Plan Area										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	75% max density	Net Unit	GP	Notes	Existing On-site
2331721100	0.17	S-P	45 du/ac	2	7	5	3	SPA9	Single Family Multiple-Units	
2331721500	0.29	S-P	45 du/ac	0	12	9	9	SPA9	Religious Facility	5th/Kalmia
2331721700	0.75	S-P	45 du/ac	0	33	25	25	SPA9	Religious Facility	First United Meth
2331721800	0.32	S-P	45 du/ac	0	14	11	11	SPA9	Office (Low-Rise)	4th/Broadway
2331810100	0.15	S-P	45 du/ac	0	6	5	5	SPA9	Office (Low-Rise)	
2331810200	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2331810300	0.20	S-P	45 du/ac	1	8	6	5	SPA9	Office (Low-Rise)	
2331810600	0.10	S-P	45 du/ac	1	4	3	2	SPA9	Single Family Detached	
2331810700	0.11	S-P	45 du/ac	1	5	4	3	SPA9	Office (Low-Rise)	
2331810800	0.11	S-P	45 du/ac	1	5	4	3	SPA9	Office (Low-Rise)	
2331810900	0.11	S-P	45 du/ac	1	4	3	2	SPA9	Office (Low-Rise)	
2331811000	0.13	S-P	45 du/ac	2	5	4	2	SPA9	Single Family Multiple-Units	
2331811100	0.13	S-P	45 du/ac	0	5	4	4	SPA9	Office (Low-Rise)	dental office
2331811200	0.13	S-P	45 du/ac	0	5	4	4	SPA9	Office (Low-Rise)	
2331811300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	
2331811800	0.64	S-P	45 du/ac	0	28	21	21	SPA9	Office (Low-Rise)	333 s juniper
2331811900	0.46	S-P	45 du/ac	0	20	15	15	SPA9	Office (Low-Rise)	Office bldg 3rd
2331820200	0.15	S-P	45 du/ac	1	6	5	4	SPA9	Office (Low-Rise)	
2331820300	0.16	S-P	45 du/ac	0	7	5	5	SPA9	Office (Low-Rise)	Small atty office
2331820400	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Single Family Detached	First United Meth
2331820600	0.32	S-P	45 du/ac	1	14	11	10	SPA9	Single Family Detached	4th/kalmia
2331820700	0.33	S-P	45 du/ac	1	14	11	10	SPA9	Single Family Detached	5th/kalmia
2331820800	0.16	S-P	45 du/ac	1	7	5	4	SPA9	Office (Low-Rise)	
2331820900	0.24	S-P	45 du/ac	0	10	8	8	SPA9	Office (Low-Rise)	Dentist office 5th
Underutilized	104.09			228	4,471	3,354	3,126			



Table B-2: South Escondido Boulevard Area Plan

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2381302700	2.29	CG	24 du/ac	0	54	38	38	GC	Vacant and Undeveloped Land	expir Tr 959
2333611400	0.14	CG	24 du/ac	0	3	2	2	GC	Vacant and Undeveloped Land	Esc/8th
2364600900	0.73	CG	24 du/ac	0	17	12	12	GC	Vacant and Undeveloped Land	Vacant
2333521200	0.10	CG	24 du/ac	0	2	1	1	GC	Vacant and Undeveloped Land	
2381522000	2.30	CG	24 du/ac	0	55	39	39	GC	Vacant and Undeveloped Land	Vacant Adj to Kaen
2381521600	0.45	CG	24 du/ac	0	10	7	7	GC	Vacant and Undeveloped Land	2690 S Esc
2381303600	0.71	CG	24 du/ac	0	16	11	11	GC	Vacant and Undeveloped Land	exp Tr 959
2381303500	0.71	CG	24 du/ac	0	17	12	12	GC	Vacant and Undeveloped Land	Exp Tr 959 - Prev approved
2360521300	0.15	R-4-24	24 du/ac	0	3	2	2	U4	Vacant and Undeveloped Land	Vacant developable
2333610300	0.16	R-4-24	24 du/ac	0	3	2	2	U4	Vacant and Undeveloped Land	Part of 7th/orange church
Vacant	7.75			0	180	126	126			
2360521500	0.18	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	B Baker offices
2332310700	0.16	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	Esc/5th older commercial
2362603500	0.24	CG	24 du/ac	1	5	4	3	GC	Single Family Detached	
2335010800	0.33	CG	24 du/ac	0	7	5	5	GC	Arterial Commercial	Esc/10th Restaurant
2335011702	0.31	CG	24 du/ac	0	7	5	5	GC	Arterial Commercial	sec 9th/Orange offices
2332411000	0.14	CG	24 du/ac	0	3	2	2	GC	Other Health Care	Dental office
2361202200	0.21	CG	24 du/ac	0	5	4	4	GC	Arterial Commercial	
2362237500	0.25	CG	24 du/ac	0	5	4	4	GC	Arterial Commercial	
2361801900	0.25	CG	24 du/ac	0	6	4	4	GC	Arterial Commercial	
2362520600	0.34	CG	24 du/ac	0	8	6	6	GC	Arterial Commercial	
2363130100	0.35	CG	24 du/ac	1	8	6	5	GC	Arterial Commercial	
2361202600	0.87	CG	24 du/ac	0	20	14	14	GC	Arterial Commercial	Motel/Laundry
2361121400	0.24	CG	24 du/ac	0	5	4	4	GC	Arterial Commercial	Sunset Inn motel
2362236700	0.17	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	
2361802000	0.19	CG	24 du/ac	1	4	3	2	GC	Single Family Detached	
2361121800	0.61	CG	24 du/ac	0	14	10	10	GC	Arterial Commercial	commercial/rest

Table B-2: South Escondido Boulevard Area Plan

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2363905300	0.85	CG/R-1-10	24 du/ac	1	20	14	13	GC	Single Family Detached	SFR & franks welding
2333711500	0.33	CG	24 du/ac	1	7	5	4	GC	Arterial Commercial	
2381303800	0.34	PD-C	24 du/ac	0	8	6	6	GC	Arterial Commercial	CCP/Citr aging
2335011600	0.17	CG	24 du/ac	1	4	3	2	GC	Arterial Commercial	
2360520400	0.16	CG	24 du/ac	1	3	2	1	GC	Arterial Commercial	
2362520300	0.42	CG	24 du/ac	1	10	7	6	GC	Arterial Commercial	
2364607000	0.79	PD/MU	24 du/ac	1	18	13	12	GC	Other Retail Trade and Strip	
2362600200	0.61	CG	24 du/ac	0	14	10	10	GC	Arterial Commercial	
2364605900	0.74	CG	24 du/ac	10	17	12	2	GC	Multi-Family Residential	
2364606000	0.33	CG	24 du/ac	1	7	5	4	GC	Other Retail Trade and Strip	
2361121200	0.13	CG	24 du/ac	1	3	2	1	GC	Arterial Commercial	
2361121300	0.23	CG	24 du/ac	0	5	4	4	GC	Arterial Commercial	
2381521100	0.16	CG	24 du/ac	0	3	2	2	GC	Communications and Utilities	
2381521400	1.00	CG	24 du/ac	0	23	16	16	GC	Arterial Commercial	Econo Lodge
2333721600	0.12	CG	24 du/ac	1	2	1	0	GC	Single Family Detached	
2332421500	0.31	CG	24 du/ac	0	7	5	5	GC	Arterial Commercial	
2335011704	0.31	CG	24 du/ac	1	7	5	4	GC	Arterial Commercial	
2335021300	0.19	CG	24 du/ac	1	4	3	2	GC	Automobile Dealership	
2332411500	0.21	CG	24 du/ac	0	5	4	4	GC	Arterial Commercial	
2362235800	4.08	CG	24 du/ac	1	97	68	67	GC	Office (Low-Rise)	330 W Felicita
2362236200	1.03	CG	24 du/ac	1	24	17	16	GC	Arterial Commercial	
2332121300	0.30	CG	24 du/ac	0	7	5	5	GC	Other Retail Trade and Strip	
2362603400	0.24	CG	24 du/ac	1	5	4	3	GC	Single Family Detached	
2333521400	0.16	CG	24 du/ac	1	3	2	1	GC	Arterial Commercial	
2364602600	0.14	CG	24 du/ac	0	3	2	2	GC	Other Retail Trade and Strip	
2362236000	0.56	CG	24 du/ac	0	13	9	9	GC	Arterial Commercial	Auto Zone

Table B-2: South Escondido Boulevard Area Plan

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2363900300	0.33	CG	24 du/ac	1	7	5	4	GC	Single Family Detached	
2361201700	0.24	CG	24 du/ac	1	5	4	3	GC	Single Family Detached	
2332320200	0.17	CG	24 du/ac	1	3	2	1	GC	Single Family Detached	
2361202100	0.20	CG	24 du/ac	2	4	3	1	GC	Arterial Commercial	
2362233500	0.15	OS-P	24 du/ac	0	3	2	2	GC	Arterial Commercial	
2361721400	0.17	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	
2333621100	0.33	CG	24 du/ac	1	7	5	4	GC	Arterial Commercial	
2362603700	0.31	CG	24 du/ac	1	7	5	4	GC	Single Family Detached	
2363900200	0.30	CG	24 du/ac	2	7	5	3	GC	Arterial Commercial	
2335021200	0.15	CG	24 du/ac	0	3	2	2	GC	Automobile Dealership	
2364600400	0.23	CG	24 du/ac	1	5	4	3	GC	Other Retail Trade and Strip	
2362603900	0.25	CG	24 du/ac	1	5	4	3	GC	Arterial Commercial	
2362521500	0.86	CG	24 du/ac	2	20	14	12	GC	Other Retail Trade and Strip	OneStop Liquor
2333610500	0.30	CG	24 du/ac	1	7	5	4	GC	Arterial Commercial	
2333711700	0.17	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	
2361122000	0.14	CG	24 du/ac	1	3	2	1	GC	Single Family Detached	
2333711400	0.17	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	
2332310600	0.17	CG	24 du/ac	1	4	3	2	GC	Single Family Detached	
2364600500	0.05	CG	24 du/ac	0	1	1	1	GC	Multi-Family Residential	
2361201900	0.19	CG	24 du/ac	1	4	3	2	GC	Single Family Detached	
2332310200	0.16	CG	24 du/ac	1	3	2	1	GC	Single Family Detached	
2332310800	0.16	CG	24 du/ac	1	3	2	1	GC	Arterial Commercial	
2361122900	0.66	CG/R-4-24	24 du/ac	2	15	11	9	GC	Single Family Multiple-Units	
2335010500	0.15	CG	24 du/ac	1	3	2	1	GC	Single Family Detached	
2335111600	0.32	CG	24 du/ac	0	7	5	5	GC	Arterial Commercial	Esc/11th aging commer
2332321500	0.16	CG	24 du/ac	1	3	2	1	GC	Single Family Detached	

Table B-2: South Escondido Boulevard Area Plan

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2332120500	0.16	CG	24 du/ac	0	3	2	2	GC	Other Retail Trade and Strip	
2361802100	0.13	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	Aging market
2335020100	0.24	CG	24 du/ac	0	5	4	4	GC	Automobile Dealership	Nonnconf use
2332321600	0.17	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	Esc/6th small office
2361121900	0.47	CG	24 du/ac	0	11	8	8	GC	Arterial Commercial	office/comm bldg
2364602700	0.17	CG	24 du/ac	0	3	2	2	GC	Other Retail Trade and Strip	
2332120600	0.16	CG	24 du/ac	0	3	2	2	GC	Other Retail Trade and Strip	
2335120200	0.16	CG	24 du/ac	1	3	2	1	GC	Single Family Detached	
2381302600	0.96	CG	24 du/ac	1	23	16	15	GC	Arterial Commercial	Exp Tr 959
2362233400	0.15	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	
2362520400	0.17	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	
2362520700	0.36	CG	24 du/ac	0	8	6	6	GC	Arterial Commercial	Aging commercial
2362520800	0.17	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	
2332310300	0.16	CG	24 du/ac	1	3	2	1	GC	Single Family Detached	
2362231700	0.15	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	Aging commercial
2335110700	0.32	CG	24 du/ac	0	7	5	5	GC	Arterial Commercial	Aging comm 10th/Escon
2363130200	0.26	CG	24 du/ac	0	6	4	4	GC	Arterial Commercial	
2364601600	1.05	CG	24 du/ac	0	25	18	18	GC	Office (Low-Rise)	SDC CU
2361202800	0.15	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	
2361801800	0.27	CG	24 du/ac	0	6	4	4	GC	Arterial Commercial	Aging commercial
2332410800	0.24	CG	24 du/ac	0	5	4	4	GC	Arterial Commercial	Aging commercial
2332320100	0.18	CG	24 du/ac	2	4	3	1	GC	Single Family Multiple-Units	
2361201500	0.36	CG	24 du/ac	1	8	6	5	GC	Single Family Detached	
2361802200	0.13	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	
2335010400	0.15	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	Aging comm 9th/Orang/Esc
2362600400	0.37	CG	24 du/ac	0	8	6	6	GC	Arterial Commercial	Aging Esc s/of Felicita
2333721400	0.13	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	Esc/9th aging comm

Table B-2: South Escondido Boulevard Area Plan

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2362604100	0.53	CG	24 du/ac	0	12	8	8	GC	Arterial Commercial	RE office esc s/of Felicita
2332310100	0.18	CG	24 du/ac	1	4	3	2	GC	Single Family Detached	
2362524200	0.29	CG	24 du/ac	0	6	4	4	GC	Other Retail Trade and Strip	Aging commercial
2360521400	0.43	CG	24 du/ac	0	10	7	7	GC	Arterial Commercial	CCP/9th auto sales
2335121600	0.16	CG	24 du/ac	0	3	2	2	GC	Automobile Dealership	10th/Esc auto sales
2381303000	1.14	PD-C	24 du/ac	0	27	19	19	GC	Arterial Commercial	Aging center CCP/Citracado
2362520500	0.17	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	S of Felicita
2332310900	0.31	CG	24 du/ac	0	7	5	5	GC	Arterial Commercial	nonconf automotive
2363905400	0.81	CG/R-1-10	24 du/ac	0	19	13	13	GC	Arterial Commercial	Franks welding
2362603600	0.25	CG	24 du/ac	1	5	4	3	GC	Single Family Detached	
2333711200	0.16	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	Auto service 9th/Esco
2361201600	0.18	CG	24 du/ac	1	4	3	2	GC	Single Family Detached	1 SFR
2362237800	0.29	CG	24 du/ac	1	6	4	3	GC	Other Retail Trade and Strip	Artisan bakery
2363905700	1.12	CG	24 du/ac	1	26	18	17	GC	Arterial Commercial	Mohnacky
2332310400	0.17	CG	24 du/ac	1	4	3	2	GC	Single Family Detached	
2361721300	0.18	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	Upholstery shop aging
2362603800	0.24	CG	24 du/ac	1	5	4	3	GC	Single Family Detached	
2361721500	1.00	CG	24 du/ac	0	24	17	17	GC	Arterial Commercial	aging comm Esc/5th
2335121700	0.16	CG	24 du/ac	0	3	2	2	GC	Automobile Dealership	Esc/11th aging commer
2362521000	0.29	CG	24 du/ac	0	6	4	4	GC	Arterial Commercial	Aging commercial
2361201800	0.23	CG	24 du/ac	2	5	4	2	GC	Single Family Detached	
2361722600	0.15	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	
2364606300	1.16	CG	24 du/ac	0	27	19	19	GC	Other Retail Trade and Strip	Auto svcs ctr Esc/Felicita
2381521500	0.68	CG	24 du/ac	0	16	11	11	GC	Arterial Commercial	aging rest. S CCP
2381413300	0.64	CG	24 du/ac	0	15	11	11	GC	Arterial Commercial	aging comm Brotherton/CCP
2364602400	0.29	R-2-12	24 du/ac	2	7	5	3	U2	Single Family Multiple-Units	

Table B-2: South Escondido Boulevard Area Plan

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2362600300	0.19	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	
2381413800	1.79	CG	24 du/ac	0	43	30	30	GC	Office (Low-Rise)	Vet/offices/Elks Esc/Citr
2363901200	0.45	CG	24 du/ac	0	10	7	7	GC	Arterial Commercial	Aging tire shop Esc/Broth
2362607900	0.78	CG	24 du/ac	0	18	13	13	GC	Arterial Commercial	Esc/Vermont comm/office
2381411800	1.61	CG	24 du/ac	0	38	27	27	GC	Arterial Commercial	Canterbury Gardens
2381410300	1.22	CG	24 du/ac	0	29	20	20	GC	Hotel/Motel (Low-Rise)	motel medit
2335010700	0.30	CG	24 du/ac	0	7	5	5	GC	Arterial Commercial	Aging donut shop/comm
2362231400	0.13	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	
2362236100	0.48	CG	24 du/ac	0	11	8	8	GC	Arterial Commercial	
2364607700	0.46	CG	24 du/ac	0	11	8	8	GC	Arterial Commercial	Market 15th/Esco
2333620100	0.33	CG	24 du/ac	0	7	5	5	GC	Religious Facility	Part of curch 7th/Esco
2362520900	0.18	CG	24 du/ac	1	4	3	2	GC	Arterial Commercial	
2381303100	1.05	PD-C	24 du/ac	0	25	18	18	GC	Arterial Commercial	nwc citr/ccp Aging
2381303700	0.81	PD-C	24 du/ac	0	19	13	13	GC	Arterial Commercial	Preschool Citr/CCP
2363112800	0.29	CG	24 du/ac	0	7	5	5	GC	Arterial Commercial	Aging comm esc s/of Vermont
2363113200	0.30	CG	24 du/ac	0	7	5	5	GC	Arterial Commercial	Glaser Baley engrav aging
2335010600	0.16	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	Pkg lot Esc/9th
2381413700	0.89	CG	24 du/ac	0	21	15	15	GC	Office (Low-Rise)	Pkg lot for adj Elks
2364601900	0.75	CG	24 du/ac	5	17	12	7	GC	Multi-Family Residential	
2333720100	0.16	CG	24 du/ac	0	3	2	2	GC	Arterial Commercial	Radio Shack Esc/8th
2381301100	0.24	CG	24 du/ac	1	5	4	3	GC	Single Family Detached	
2361202700	0.14	CG	24 du/ac	1	3	2	1	GC	Single Family Detached	
2332421400	0.34	CG	24 du/ac	0	8	6	6	GC	Arterial Commercial	Aging mkt Esc/7th
2361720600	0.31	CG	24 du/ac	0	7	5	5	GC	Arterial Commercial	Aging Esc/13th
2361202000	0.24	CG	24 du/ac	0	5	4	4	GC	Arterial Commercial	aging market n/of 13th
2364600300	0.13	CG	24 du/ac	1	3	2	1	GC	Single Family Detached	

Table B-2: South Escondido Boulevard Area Plan

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2362604800	0.42	CG	24 du/ac	0	9	6	6	GC	Arterial Commercial	Aging 7-11
2364607800	0.19	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	Market 15th/Esco
2332410900	0.18	CG	24 du/ac	0	4	3	3	GC	Arterial Commercial	
2364605400	0.68	CG	24 du/ac	10	16	11	1	GC	Multi-Family Residential	
2332310500	0.16	CG	24 du/ac	1	3	2	1	GC	Single Family Detached	
2361120300	0.20	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2332121100	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361110800	0.14	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361110600	0.22	R-4-24	24 du/ac	1	5	4	3	U4	Single Family Detached	
2360520900	0.17	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2361120400	0.19	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2332410200	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361710100	0.19	R-4-24	24 du/ac	2	4	3	1	U4	Single Family Multiple-Units	
2333710400	0.17	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2333520700	0.06	R-4-24	24 du/ac	1	1	1	0	U4	Single Family Detached	
2361711500	0.07	R-4-24	24 du/ac	1	1	1	0	U4	Single Family Detached	
2332410400	0.15	R-4-24	24 du/ac	2	3	2	0	U4	Single Family Multiple-Units	
2333611000	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361711000	0.60	R-4-24	24 du/ac	9	14	10	1	U4	Multi-Family Residential	
2361711200	0.08	R-4-24	24 du/ac	1	1	1	0	U4	Single Family Detached	
2332220900	0.17	R-4-24	24 du/ac	2	4	3	1	U4	Single Family Multiple-Units	
2361120200	0.13	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2333710100	0.17	R-4-24	24 du/ac	3	4	3	0	U4	Single Family Multiple-Units	
2361110200	0.12	R-4-24	24 du/ac	1	2	1	0	U4	Single Family Detached	
2361110300	0.12	R-4-24	24 du/ac	1	2	1	0	U4	Single Family Detached	
2332411600	0.17	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2335010900	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	

Table B-2: South Escondido Boulevard Area Plan

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2361722700	0.36	R-4-24	24 du/ac	5	8	6	1	U4	Multi-Family Residential	
2361722800	0.25	R-4-24	24 du/ac	2	6	4	2	U4	Single Family Multiple-Units	
2361110700	0.25	R-4-24	24 du/ac	1	5	4	3	U4	Single Family Detached	
2361710800	0.13	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361120500	0.13	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361720200	0.17	R-4-24	24 du/ac	2	4	3	1	U4	Single Family Multiple-Units	
2361720500	0.15	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2332311400	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2333420400	0.17	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2332220300	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361122600	0.23	R-4-24	24 du/ac	2	5	4	2	U4	Single Family Multiple-Units	
2335111300	0.17	R-4-24	24 du/ac	2	4	3	1	U4	Single Family Multiple-Units	
2360621100	0.17	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2333611300	0.49	R-4-24	24 du/ac	0	11	8	8	U4	Religious Facility	orange/7th aging church
2332220400	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2333610900	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2360620800	0.23	PD-R 13.15	24 du/ac	1	5	4	3	U4	Single Family Detached	
2361120800	0.18	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2361120700	0.14	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2332221000	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361110900	0.14	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2335011000	0.17	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2333610400	0.32	R-4-24	24 du/ac	4	7	5	1	U4	Single Family Multiple-Units	
2360620900	0.17	R-4-24	24 du/ac	2	4	3	1	U4	Single Family Multiple-Units	
2360621000	0.17	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2361710200	0.19	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	

Table B-2: South Escondido Boulevard Area Plan

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2335011800	0.33	R-4-24	24 du/ac	2	7	5	3	U4	Single Family Multiple-Units	
2361722500	0.19	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2335110800	0.18	R-4-24	24 du/ac	2	4	3	1	U4	Single Family Multiple-Units	
2360521000	0.15	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2360620200	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361720900	0.14	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361710700	0.15	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361710300	0.44	R-4-24	24 du/ac	0	10	7	7	U4	Religious Facility	
2335111100	0.17	R-4-24	24 du/ac	2	4	3	1	U4	Single Family Multiple-Units	
2332220700	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361720400	0.15	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2333611100	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2333610700	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2332311000	0.16	R-4-24	24 du/ac	0	3	2	2	U4	Religious Facility	
2361620600	0.14	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361111000	0.28	R-4-24	24 du/ac	1	6	4	3	U4	Single Family Detached	
2333520500	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361021000	0.79	R-4-24	24 du/ac	9	18	13	4	U4	Multi-Family Residential	
2332121000	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2361110400	0.13	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2332121200	0.16	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2360620700	0.19	PD-R 13.15	24 du/ac	2	4	3	1	U4	Single Family Multiple-Units	
2335110900	0.18	R-4-24	24 du/ac	1	4	3	2	U4	Single Family Detached	
2361722000	0.15	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2335111000	0.17	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2333420500	0.15	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	

Table B-2: South Escondido Boulevard Area Plan										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2360621200	0.13	R-4-24	24 du/ac	1	3	2	1	U4	Single Family Detached	
2333710600	0.25	R-4-24	24 du/ac	1	5	4	3	U4	Single Family Detached	
Underutilized	73.86			198	1,651	1,156	958			

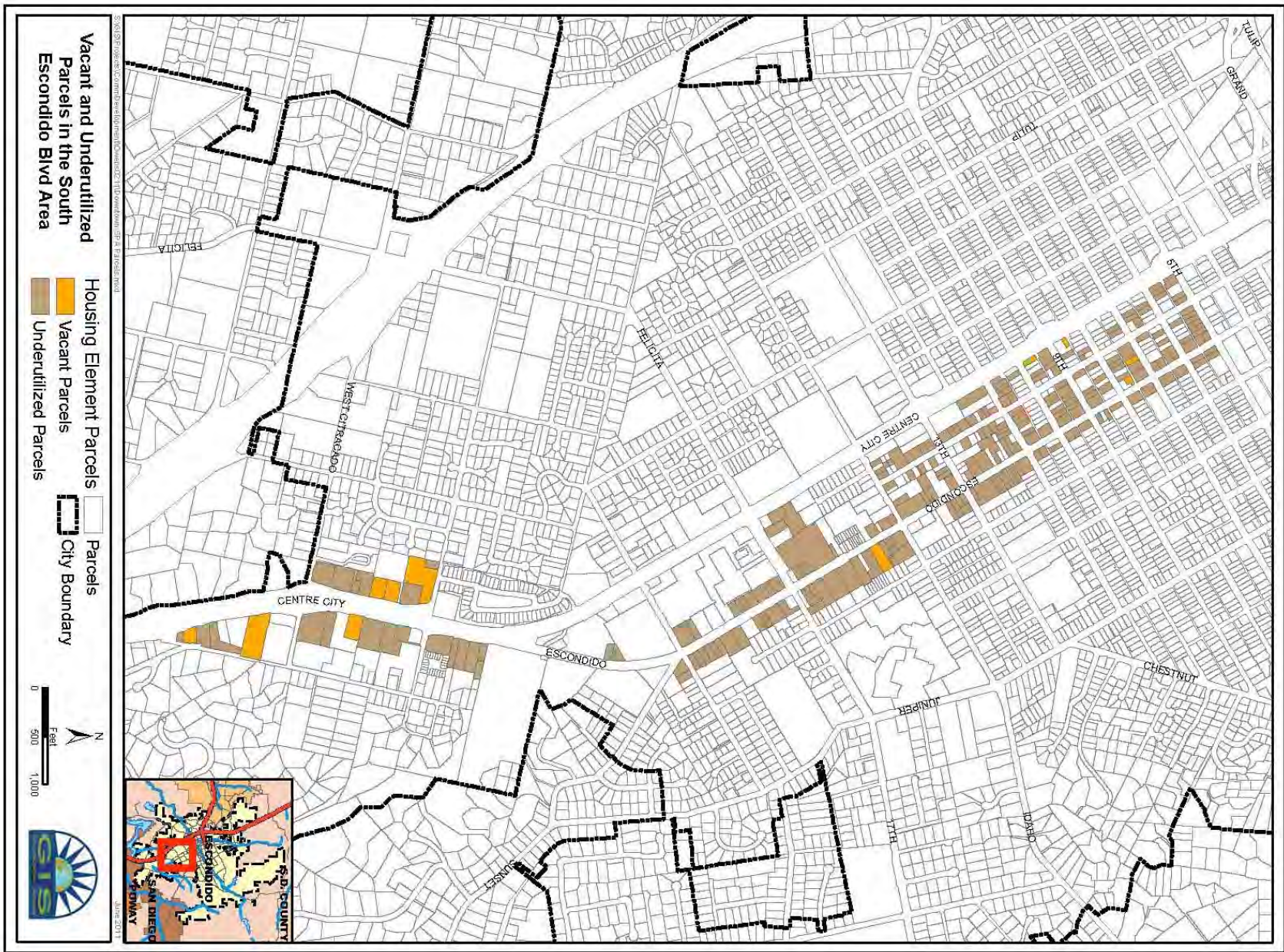


Table B-3: Citywide Sites

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2294500600	10.01	H-P	45du/ac	0	450	300	300	O	Hospital - General	Hospital 150-300 du per MOU
Underutilized	10.01				450	300	300	O	Hospital - General	Hospital 150-300 du per MOU
2331311600	0.50	M-1	45du/ac	0	22	15	15	IO	Industrial Park	Mercado aging commer
2331310500	0.17	M-1	45du/ac	0	7	5	5	IO	Industrial Park	Mercado aging automotive
2331310100	0.31	M-1	45du/ac	1	13	9	8	IO	Industrial Park	Mercado aging commercial
2331310600	0.34	M-1	45du/aac	0	15	11	11	IO	Industrial Park	Mercado aging commercial
2331210200	2.70	PD-I	45du/ac	0	121	85	85	IO	Industrial Park	Lumberyard-Mercado
Underutilized	4.02			1	178	125	124			
2250406800	2.67	R-1-10	Min 10,000 sf/du	0	11	8	8	S	LU = Field Crops	
2243104900	12.77	R-1-10	Min 10,000 sf/du	0	55	39	39	S	LU = Field Crops	
2250410400	3.28	R-1-10	Min 10,000 sf/du	0	14	10	10	S	LU = Orchard or Vinyard	
2353505100	2.03	R-1-10	Min 10,000 sf/du	0	8	6	6	U1	LU = Vacant & Undeveloped Land	
2263804000	2.84	R-1-10	Min 10,000 sf/du	0	12	8	8	S	LU = Vacant & Undeveloped Land	
2250304600	1.23	R-1-10	Min 10,000 sf/du	0	5	4	4	S	LU = Vacant & Undeveloped Land	
2311008200	2.97	R-1-10	Min 10,000 sf/du	0	12	8	8	S	LU = Vacant & Undeveloped Land	
2254804300	1.26	R-1-10	Min 10,000 sf/du	0	5	4	4	S	LU = Vacant & Undeveloped Land	
2263301500	4.36	R-1-10	Min 10,000 sf/du	0	19	13	13	S	LU = Vacant & Undeveloped Land	
2241423500	3.21	R-1-10	Min 10,000 sf/du	0	13	9	9	S	LU = Vacant & Undeveloped Land	
2263701100	5.08	R-1-10	Min 10,000 sf/du	0	22	15	15	S	LU = Vacant & Undeveloped Land	
2352700300	4.15	R-1-10	Min 10,000 sf/du	0	18	13	13	S	LU = Vacant & Undeveloped Land	
2263701800	2.38	R-1-10	Min 10,000 sf/du	0	10	7	7	S	LU = Vacant & Undeveloped Land	
2271802700	2.08	R-1-10	Min 10,000 sf/du	0	9	6	6	S	LU = Vacant & Undeveloped Land	
1873706500	5.62	R-1-10	Min 10,000 sf/du	0	24	17	17	S	LU = Vacant & Undeveloped Land	
2252703000	1.02	R-1-10	Min 10,000 sf/du	0	4	3	3	S	LU = Vacant & Undeveloped Land	
2263302400	2.03	R-1-10	Min 10,000 sf/du	0	8	6	6	S	LU = Vacant & Undeveloped Land	
2363323400	0.90	R-1-10	Min 10,000 sf/du	0	3	2	2	S	LU = Vacant & Undeveloped Land	

Table B-3: Citywide Sites										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2352700600	1.97	R-1-10	Min 10,000 sf/du	0	8	6	6	S	LU = Vacant & Undeveloped Land	
2252702300	1.02	R-1-10	Min 10,000 sf/du	0	4	3	3	S	LU = Vacant & Undeveloped Land	
2343907000	3.14	R-1-10	Min 10,000 sf/du	0	13	9	9	S	LU = Vacant & Undeveloped Land	
2351502100	0.84	R-1-12	Min 12,000 sf/du	0	3	2	2	S	LU = Vacant & Undeveloped Land	
2274302000	22.50	R-1-15	Min 15,000 sf/du	0	65	46	46	E1	LU = Orchard or Vinyard	
2273202400	0.87	R-1-15	Min 15,000 sf/du	0	2	1	1	S	LU = Vacant & Undeveloped Land	
2364902100	2.82	R-1-20	Min 20,000 sf/du	0	6	4	4	E2		
2275403700	1.49	R-1-6	Min 6,000 sf/du	0	10	7	7	U1	LU = Communications and Utilities	
2311200500	0.94	R-1-6	Min 6,000 sf/du	0	6	4	4	U2	LU = Vacant & Undeveloped Land	
2252705400	3.20	R-1-6	Min 6,000 sf/du	0	23	16	16	U1	LU = Vacant & Undeveloped Land	
2353003500	0.94	R-1-7	Min 7,000 sf/du	0	5	4	4	U1	LU = Orchard or Vinyard	
2290710700	1.19	R-1-7	Min 7,000 sf/du	0	7	5	5	U1	LU = Vacant & Undeveloped Land	
2290721100	0.92	R-1-7	Min 7,000 sf/du	0	5	4	4	U1	LU = Vacant & Undeveloped Land	
2362005200	0.92	R-1-7	Min 7,000 sf/du	0	5	4	4	U1	LU = Vacant & Undeveloped Land	
2280505200	1.03	R-1-8	Min 8,000 sf/du	0	5	4	4	U1	LU = Vacant & Undeveloped Land	
2280506300	0.70	R-1-8	Min 8,000 sf/du	0	3	2	2	U1	LU = Vacant & Undeveloped Land	
Vacant	104.36			0	422	295	295			
2261901000	1.72	R-1-10	Min 10,000 sf/du	0	7	5	5	S	LU = Communications and Utilities	
2250410300	6.92	R-1-10	Min 10,000 sf/du	1	30	21	20	S	LU = Warehousing	
2271801900	1.00	R-1-10	Min 10,000 sf/du	1	4	3	2	S		
2257200100	1.16	R-1-10	Min 10,000 sf/du	1	5	4	3	S		
2314700300	2.88	R-1-10	Min 10,000 sf/du	1	12	8	7	S		
2273300100	1.96	R-1-10	Min 10,000 sf/du	1	8	6	5	S		
2263702800	3.98	R-1-10	Min 10,000 sf/du	1	17	12	11	S		
2381411600	1.31	R-1-10	Min 10,000 sf/du	1	5	4	3	U1		
2263702500	2.83	R-1-10	Min 10,000 sf/du	1	12	8	7	S		
2351003500	1.24	R-1-10	Min 10,000 sf/du	1	5	4	3	S		

Table B-3: Citywide Sites

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2313502600	1.67	R-1-10	Min 10,000 sf/du	1	7	5	4	S		
2280505100	1.10	R-1-10	Min 10,000 sf/du	1	4	3	2	U1		
2304103400	1.26	R-1-10	Min 10,000 sf/du	1	5	4	3	S		
2263700900	2.63	R-1-10	Min 10,000 sf/du	1	11	8	7	S		
2314700200	1.01	R-1-10	Min 10,000 sf/du	1	4	3	2	S		
2353505200	1.49	R-1-10	Min 10,000 sf/du	2	6	4	2	U1		
2314702200	1.34	R-1-10	Min 10,000 sf/du	1	5	4	3	S		
2314702800	1.70	R-1-10	Min 10,000 sf/du	1	7	5	4	S		
2321701200	1.92	R-1-10	Min 10,000 sf/du	1	8	6	5	S		
2336231100	1.06	R-1-10	Min 10,000 sf/du	1	4	3	2	S		
2311007900	1.34	R-1-10	Min 10,000 sf/du	1	5	4	3	S		
2250305600	1.27	R-1-10	Min 10,000 sf/du	1	5	4	3	S		
2263701300	1.46	R-1-10	Min 10,000 sf/du	1	6	4	3	S		
2241423300	1.29	R-1-10	Min 10,000 sf/du	2	5	4	2	S		
2363801700	1.44	R-1-10	Min 10,000 sf/du	1	6	4	3	S		
2263303800	2.64	R-1-10	Min 10,000 sf/du	1	11	8	7	S		
2241423000	1.36	R-1-10	Min 10,000 sf/du	1	5	4	3	S		
2263701900	2.25	R-1-10	Min 10,000 sf/du	1	9	6	5	S		
2241421300	2.86	R-1-10	Min 10,000 sf/du	1	12	8	7	S		
2252705800	2.61	R-1-10	Min 10,000 sf/du	1	11	8	7	S		
2252700500	1.18	R-1-10	Min 10,000 sf/du	1	5	4	3	S		
2263302500	1.05	R-1-10	Min 10,000 sf/du	1	4	3	2	S		
2363321700	1.03	R-1-10	Min 10,000 sf/du	1	4	3	2	S		
2351214100	1.32	R-1-10	Min 10,000 sf/du	1	5	4	3	S		
2261901200	2.21	R-1-10	Min 10,000 sf/du	1	9	6	5	S		
2271228500	1.12	R-1-15	Min 15,000 sf/du	1	3	2	1	S		
2273400700	1.01	R-1-6	Min 6,000 sf/du	1	7	5	4	U1	LU = Vacant & Undeveloped Land	

Table B-3: Citywide Sites

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2333002422	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002402	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002406	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612116	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2310701100	1.95	R-1-6	Min 6,000 sf/du	2	14	10	8	U1		
2253612124	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612119	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612108	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002420	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612107	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612110	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2256106300	1.01	R-1-6	Min 6,000 sf/du	3	7	5	2	U1		
2333002413	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002401	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002410	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612112	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002408	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2256106201	1.49	R-1-6	Min 6,000 sf/du	4	10	7	3	U1		
2271440700	2.01	R-1-6	Min 6,000 sf/du	5	14	10	5	U1		
2333002415	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612115	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612102	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2316604300	1.35	R-1-6	Min 6,000 sf/du	1	9	6	5	U1		
2253612114	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002421	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612101	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002418	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		

Table B-3: Citywide Sites

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2333002416	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612106	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002409	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612113	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612120	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612122	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002405	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2273407800	0.90	R-1-6	Min 6,000 sf/du	1	6	4	3	U1		
2271440400	1.06	R-1-6	Min 6,000 sf/du	1	7	5	4	U1		
2333002412	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2333002407	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612121	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612105	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612123	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2310703600	1.33	R-1-6	Min 6,000 sf/du	1	9	6	5	U1		
2256106202	1.49	R-1-6	Min 6,000 sf/du	4	10	7	3	U1		
2317905000	0.70	R-1-6	Min 6,000 sf/du	1	5	4	3	U1		
2333002404	1.55	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612111	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612117	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612118	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612103	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2253612104	1.63	R-1-6	Min 6,000 sf/du	1	11	8	7	U1		
2310710600	1.20	R-1-6	Min 6,000 sf/du	1	8	6	5	U1		
2247300203	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2247300201	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2247300208	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		

Table B-3: Citywide Sites

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2247300202	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2247300216	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2247300222	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2247300221	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2247300218	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2247310467	1.08	R-1-7	Min 7,000 sf/du	1	6	4	3	U1		
2290610600	0.88	R-1-7	Min 7,000 sf/du	1	5	4	3	U1		
2247300207	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2247300205	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2247300211	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2290610900	0.89	R-1-7	Min 7,000 sf/du	1	5	4	3	U1		
2247310474	1.08	R-1-7	Min 7,000 sf/du	1	6	4	3	U1		
2247310470	1.08	R-1-7	Min 7,000 sf/du	1	6	4	3	U1		
2251600300	0.94	R-1-7	Min 7,000 sf/du	1	5	4	3	U1		
2323403600	0.84	R-1-7	Min 7,000 sf/du	1	5	4	3	U1		
2247300217	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2251606100	1.43	R-1-7	Min 7,000 sf/du	1	8	6	5	U1		
2271431400	0.83	R-1-7	Min 7,000 sf/du	1	5	4	3	U1		
2365100100	0.96	R-1-7	Min 7,000 sf/du	1	5	4	3	U1		
2251600200	3.38	R-1-7	Min 7,000 sf/du	1	21	15	14	U1		
2247300212	5.79	R-1-7	Min 7,000 sf/du	1	36	25	24	U1		
2350505800	5.74	R-1-7	Min 7,000 sf/du	1	35	25	24	U1		
2247310469	1.08	R-1-7	Min 7,000 sf/du	1	6	4	3	U1		
2247310473	1.08	R-1-7	Min 7,000 sf/du	1	6	4	3	U1		
2280602200	2.71	R-1-8	Min 8,000 sf/du	1	14	10	9	U2		
2275206600	1.03	R-1-8	Min 8,000 sf/du	1	5	4	3	U1		
2274104200	1.76	R-1-8	Min 8,000 sf/du	1	9	6	5	U1		

Table B-3: Citywide Sites

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2285004700	2.25	R-1-8	Min 8,000 sf/du	1	12	8	7	U1		
Underutilized	250.17			133	1,449	1,014	881			
2290401400	0.57	R-2-12	12 du/ac	0	6	4	4	U2	LU = Vacant & Undeveloped Land	
2282205000	0.83	R-2-12	12 du/ac	0	10	7	7	U2	LU = Vacant & Undeveloped Land	
2295122100	0.17	R-2-12	12 du/ac	0	2	1	1	U2	LU = Vacant & Undeveloped Land	
Vacant	1.57			0	18	13	13			
2262110200	0.76	R-2-10	10 du/ac	1	7	5	4	U2		
2290101021	2.64	R-2-12	12 du/ac	1	31	22	21	U2	Stacked Parcels	
2290400400	0.62	R-2-12	12 du/ac	1	7	5	4	U2		
2282200300	0.44	R-2-12	12 du/ac	0	5	4	4	U2		
2365201500	0.58	R-2-12	12 du/ac	0	7	5	5	U2		
2280604900	1.02	R-2-12	12 du/ac	1	12	8	7	U2		
2291015500	0.94	R-2-12	12 du/ac	0	11	8	8	U2		
2310222400	0.66	R-2-12	12 du/ac	1	7	5	4	U2		
2363133300	0.26	R-2-12	12 du/ac	1	3	2	1	U2		
2322900900	0.43	R-2-12	12 du/ac	1	5	4	3	U2		
2280743300	0.51	R-2-12	12 du/ac	1	6	4	3	U2		
2291521700	0.86	R-2-12	12 du/ac	2	10	7	5	U2		
2300101700	0.45	R-2-12	12 du/ac	1	5	4	3	U2		
2310222200	0.33	R-2-12	12 du/ac	1	3	2	1	U2		
2290400500	0.55	R-2-12	12 du/ac	1	6	4	3	U2		
2280801603	0.28	R-2-12	12 du/ac	1	3	2	1	U2		
2290400600	0.52	R-2-12	12 du/ac	2	6	4	2	U2		
2362610400	0.50	R-2-12	12 du/ac	1	6	4	3	U2		
2291210300	0.53	R-2-12	12 du/ac	1	6	4	3	U2		
2360730100	6.20	R-2-8	8 du/ac	15	49	34	19	U2		
Underutilized	19.09			33	195	137	104			

Table B-3: Citywide Sites										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2301032200	0.37	R-3-18	18 du/ac	0	6	4	4	U3	LU = Vacant & Undeveloped Land	
Vacant	0.37			0	6	4	4			
2361201200	0.59	R-3-18	18 du/ac	3	10	7	4	U3		
2300415300	0.59	R-3-18	18 du/ac	1	10	7	6	U3		
2303802200	0.79	R-3-18	18 du/ac	1	14	10	9	U3		
2314304000	0.41	R-3-18	18 du/ac	0	7	5	5	U3		
2361301600	0.31	R-3-18	18 du/ac	1	5	4	3	U3		
2300520700	0.47	R-3-18	18 du/ac	1	8	6	5	U3		
2292204100	0.38	R-3-18	18 du/ac	1	6	4	3	U3		
2301020300	0.18	R-3-18	18 du/ac	1	3	2	1	U3		
2303804200	0.38	R-3-18	18 du/ac	1	6	4	3	U3		
Underutilized	4.09			10	69	48	38			
2350720800	0.96	R-4-24	24 du/ac	1	22	15	14	U4		
Underutilized	0.96			1	22	15	14			
1900801800	34.44	RA-10	Min 10 ac/du	0	3	2	2	R1	LU = Orchard or Vinyard	
2401115300	12.96	RA-10	Min 10 ac/du	0	1	1	1	E2	LU = Orchard or Vinyard	
2401008300	15.72	RA-10	Min 10 ac/du	0	1	1	1	E2	LU = Orchard or Vinyard	
2401008400	15.19	RA-10	Min 10 ac/du	0	1	1	1	E2	LU = Orchard or Vinyard	
1900802700	31.59	RA-5	Min 5 ac/du	0	6	4	4	R1	LU = Orchard or Vinyard	
2400103000	5.13	RA-5	Min 5 ac/du	0	1	1	1	R1	LU = Orchard or Vinyard	
2400104100	7.51	RA-5	Min 5 ac/du	0	1	1	1	R1	LU = Vacant & Undeveloped Land	
2380211100	18.46	RA-5	Min 5 ac/du	0	3	2	2	R1	LU = Vacant & Undeveloped Land	
2380210500	9.78	RA-5	Min 5 ac/du	0	1	1	1	R1	LU = Vacant & Undeveloped Land	
2400101900	36.05	RE-170	Min 170,000 sf/du	0	9	6	6	R1	LU = Vacant & Undeveloped Land	
2400102600	6.14	RE-170	Min 170,000 sf/du	0	1	1	1	E1	LU = Vacant & Undeveloped Land	
2336111000	1.66	RE-20	Min 20,000 sf/du	0	3	2	2	E2	LU = Communications and Utilities	

Table B-3: Citywide Sites

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2250408200	1.02	RE-20	Min 20,000 sf/du	0	2	1	1	S	LU = Field Crops	
2250408400	1.01	RE-20	Min 20,000 sf/du	0	2	1	1	S	LU = Field Crops	
2250408300	1.04	RE-20	Min 20,000 sf/du	0	2	1	1	S	LU = Field Crops	
2250400400	0.96	RE-20	Min 20,000 sf/du	0	2	1	1	S	LU = Field Crops	
2340301400	9.77	RE-20	Min 20,000 sf/du	0	21	15	15	E2	LU = Field Crops	
2241513500	1.51	RE-20	Min 20,000 sf/du	0	3	2	2	E2	LU = Field Crops	
2250408900	1.90	RE-20	Min 20,000 sf/du	0	4	3	3	S	LU = Field Crops	
2402001900	11.54	RE-20	Min 20,000 sf/du	0	25	18	18	E2	LU = Intensive Agriculture	
2380712300	2.66	RE-20	Min 20,000 sf/du	0	5	4	4	E2	LU = Orchard or Vinyard	
2311402900	10.17	RE-20	Min 20,000 sf/du	1	22	15	14	S	LU = Orchard or Vinyard	
2274201100	6.83	RE-20	Min 20,000 sf/du	0	14	10	10	E2	LU = Orchard or Vinyard	
2371310200	15.47	RE-20	Min 20,000 sf/du	0	33	23	23	E2	LU = Orchard or Vinyard	
2371310100	23.50	RE-20	Min 20,000 sf/du	1	51	36	35	E2	LU = Orchard or Vinyard	
2241435000	2.91	RE-20	Min 20,000 sf/du	0	6	4	4	E2	LU = Orchard or Vinyard	
2241410900	3.72	RE-20	Min 20,000 sf/du	0	8	6	6	E2	LU = Vacant & Undeveloped Land	
2325121600	1.10	RE-20	Min 20,000 sf/du	0	2	1	1	E2	LU = Vacant & Undeveloped Land	
2344601000	5.40	RE-20	Min 20,000 sf/du	0	11	8	8	E2	LU = Vacant & Undeveloped Land	
2241514800	1.14	RE-20	Min 20,000 sf/du	0	2	1	1	E2	LU = Vacant & Undeveloped Land	
2242602300	4.20	RE-20	Min 20,000 sf/du	0	9	6	6	E2	LU = Vacant & Undeveloped Land	
2381013600	5.85	RE-20	Min 20,000 sf/du	0	12	8	8	E2	LU = Vacant & Undeveloped Land	
2363343500	1.05	RE-20	Min 20,000 sf/du	0	2	1	1	E2	LU = Vacant & Undeveloped Land	
2381024100	6.33	RE-20	Min 20,000 sf/du	0	13	9	9	E2	LU = Vacant & Undeveloped Land	
2363601500	2.64	RE-20	Min 20,000 sf/du	0	5	4	4	S	LU = Vacant & Undeveloped Land	
2242604700	1.37	RE-20	Min 20,000 sf/du	0	2	1	1	E2	LU = Vacant & Undeveloped Land	
2241433200	2.41	RE-20	Min 20,000 sf/du	0	5	4	4	E2	LU = Vacant & Undeveloped Land	
2241515100	10.39	RE-20	Min 20,000 sf/du	0	22	15	15	E2	LU = Vacant & Undeveloped Land	
2242604600	1.10	RE-20	Min 20,000 sf/du	0	2	1	1	E2	LU = Vacant & Undeveloped Land	

Table B-3: Citywide Sites										
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2304103300	3.94	RE-20	Min 20,000 sf/du	0	8	6	6	S	LU = Vacant & Undeveloped Land	
2391310900	3.44	RE-20	Min 20,000 sf/du	0	7	5	5	E2	LU = Vacant & Undeveloped Land	
2274304800	1.19	RE-20	Min 20,000 sf/du	0	2	1	1	E2	LU = Vacant & Undeveloped Land	
2363334100	1.94	RE-20	Min 20,000 sf/du	0	4	3	3	S	LU = Vacant & Undeveloped Land	
2401009000	0.96	RE-20	Min 20,000 sf/du	0	2	1	1	E2	LU = Vacant & Undeveloped Land	
2280504100	1.38	RE-20	Min 20,000 sf/du	0	3	2	2	E2	LU = Vacant & Undeveloped Land	
2325121500	1.31	RE-20	Min 20,000 sf/du	0	2	1	1	E2	LU = Vacant & Undeveloped Land	
2241006100	1.92	RE20/R1-10	Min 20,000 sf/du	0	4	3	3	E2	LU = Vacant & Undeveloped Land	
2401906500	14.49	RE20/RE80	Min 20,000 sf/du	0	31	22	22	R2	LU = Orchard or Vinyard	
2254801800	10.66	RE-210	Min 210,000 sf/du	0	2	1	1	R1	LU = Orchard or Vinyard	
2254802900	5.09	RE-210	Min 210,000 sf/du	0	1	1	1	R1	LU = Orchard or Vinyard	
2380730600	8.77	RE-40	Min 40,000 sf/du	0	9	6	6	E1	LU = Vacant & Undeveloped Land	
2390511000	1.02	RE-40	Min 40,000 sf/du	0	1	1	1	E2	LU = Vacant & Undeveloped Land	
2380733800	4.50	RE-40	Min 40,000 sf/du	0	4	3	3	E1	LU = Vacant & Undeveloped Land	
2384923800	1.05	RE-40	Min 40,000 sf/du	0	1	1	1	E1	LU = Vacant & Undeveloped Land	
2350810900	4.73	RE-40	Min 40,000 sf/du	0	5	4	4	E2	LU = Vacant & Undeveloped Land	
2380735500	4.34	RE-40	Min 40,000 sf/du	0	4	3	3	E1	LU = Vacant & Undeveloped Land	
2383606800	5.90	RE-40	Min 40,000 sf/du	0	6	4	4	E1	LU = Vacant & Undeveloped Land	
2271013600	3.44	RE-40	Min 40,000 sf/du	0	3	2	2	E1	LU = Vacant & Undeveloped Land	
2380734900	6.68	RE-40	Min 40,000 sf/du	0	7	5	5	E1	LU = Vacant & Undeveloped Land	
2242605100	4.13	RE40/RE80	Min 40,000 sf/du	0	4	3	3	E1	LU = Vacant & Undeveloped Land	
Vacant	422.49			2	428	300	298			
2371306500	2.50	RE-20	Min 20,000 sf/du	1	5	4	3	E2		
2401002300	2.69	RE-20	Min 20,000 sf/du	1	5	4	3	E2		
2271013700	5.65	RE-20	Min 20,000 sf/du	1	12	8	7	E2		
2250408500	2.45	RE-20	Min 20,000 sf/du	1	5	4	3	S		

Table B-3: Citywide Sites

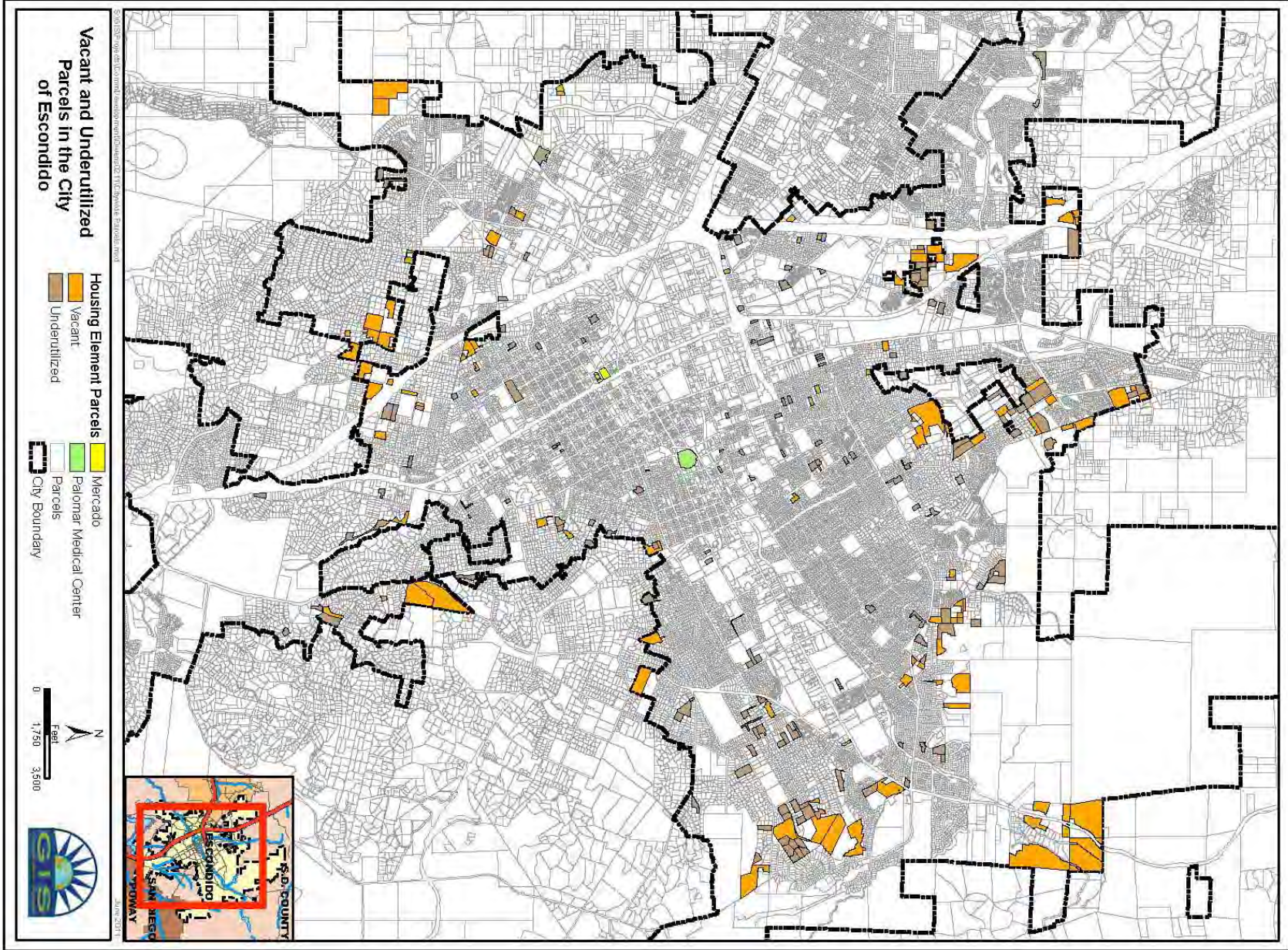
APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2241432800	2.02	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2312021500	4.79	RE-20	Min 20,000 sf/du	1	10	7	6	E2		
2402001100	2.60	RE-20	Min 20,000 sf/du	1	5	4	3	E2		
2241514100	2.86	RE-20	Min 20,000 sf/du	1	6	4	3	E2		
2391311000	5.62	RE-20	Min 20,000 sf/du	1	12	8	7	E2		
2312105600	2.08	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2313604900	1.62	RE-20	Min 20,000 sf/du	0	3	2	2	S		
2336306300	1.47	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2271013800	3.14	RE-20	Min 20,000 sf/du	1	6	4	3	E2		
2350901600	1.42	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2402001200	1.89	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2241410200	8.62	RE-20	Min 20,000 sf/du	1	18	13	12	E2		
2241412300	4.50	RE-20	Min 20,000 sf/du	4	9	6	2	E2		
2384701500	2.28	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2311402000	4.21	RE-20	Min 20,000 sf/du	1	9	6	5	S		
2363334500	4.73	RE-20	Min 20,000 sf/du	0	10	7	7	S		
2401007400	2.61	RE-20	Min 20,000 sf/du	1	5	4	3	E2		
2402002200	2.06	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2401901800	2.26	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2350823000	1.84	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2401703500	2.20	RE-20	Min 20,000 sf/du	2	4	3	1	E2		
2275821600	1.48	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2401006900	1.89	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2401002100	4.33	RE-20	Min 20,000 sf/du	1	9	6	5	E2		
2271020300	1.80	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2402002100	1.91	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2341805100	1.62	RE-20	Min 20,000 sf/du	1	3	2	1	E2		

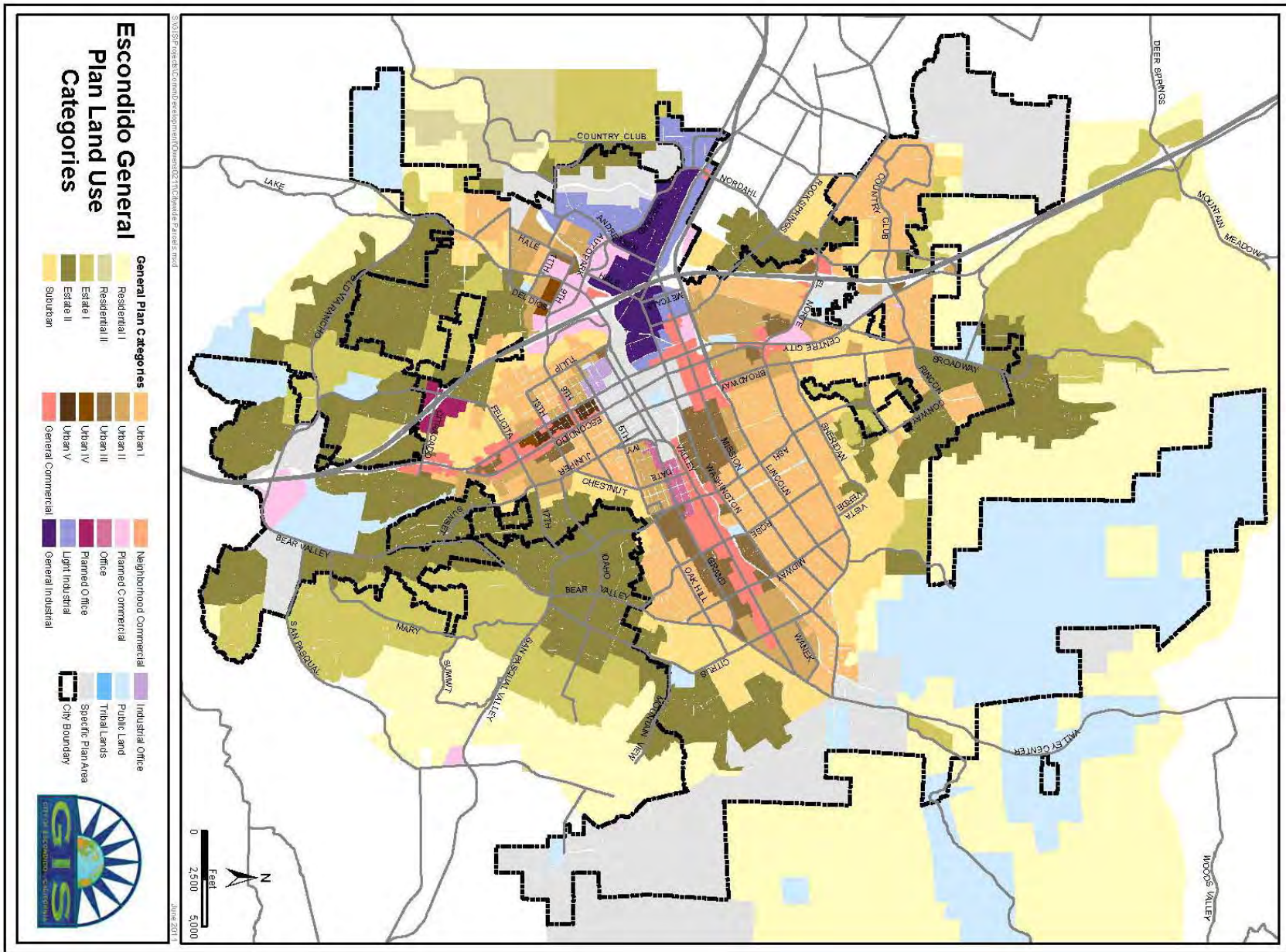
Table B-3: Citywide Sites

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2313602000	1.49	RE-20	Min 20,000 sf/du	1	3	2	1	S		
2311413100	3.69	RE-20	Min 20,000 sf/du	1	8	6	5	E2		
2402002300	2.15	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2384610800	1.91	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2336113700	2.11	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2250402200	4.99	RE-20	Min 20,000 sf/du	1	10	7	6	S		
2313601900	2.29	RE-20	Min 20,000 sf/du	1	4	3	2	S		
2393920400	1.43	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2350822900	1.52	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2401008600	1.41	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2710213800	1.64	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2402002700	2.31	RE-20	Min 20,000 sf/du	1	5	4	3	E2		
2402002500	2.60	RE-20	Min 20,000 sf/du	1	5	4	3	E2		
2336112400	1.49	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2312304200	4.27	RE-20	Min 20,000 sf/du	1	9	6	5	E2		
2312401100	2.03	RE-20	Min 20,000 sf/du	1	4	3	2	S		
2241412500	1.94	RE-20	Min 20,000 sf/du	2	4	3	1	E2		
2241433000	7.11	RE-20	Min 20,000 sf/du	2	15	11	9	E2		
2241514900	1.98	RE-20	Min 20,000 sf/du	1	4	3	2	E2		
2402002400	3.01	RE-20	Min 20,000 sf/du	1	6	4	3	E2		
2363333200	2.81	RE-20	Min 20,000 sf/du	1	6	4	3	S		
2405301200	1.67	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2392202000	1.64	RE-20	Min 20,000 sf/du	1	3	2	1	E2		
2402002600	2.35	RE-20	Min 20,000 sf/du	1	5	4	3	E2		
2305202800	3.06	RE-20	Min 20,000 sf/du	2	6	4	2	E2		
2392015600	3.50	RE-30	Min 30,000 sf/du	0	5	4	4	E2		
2390200700	2.74	RE-30	Min 30,000 sf/du	1	3	2	1	E2		

Table B-3: Citywide Sites

APN	Acres	Zoning	Zoning Density	Existing Dwelling Units	Allowable Units	70% max density	Net Units	GP	Notes	Existing On-site
2241007300	3.27	RE40	Min 40,000 sf/du	1	3	2	1	E2		
2250200400	4.40	RE-40	Min 40,000 sf/du	1	4	3	2	E1		
2250201400	6.16	RE-40	Min 40,000 sf/du	1	6	4	3	E1		
2242400100	10.34	RE-80	Min 80,000 sf/du	1	5	4	3	R2		
Underutilized	184.46			66	337	236	170			





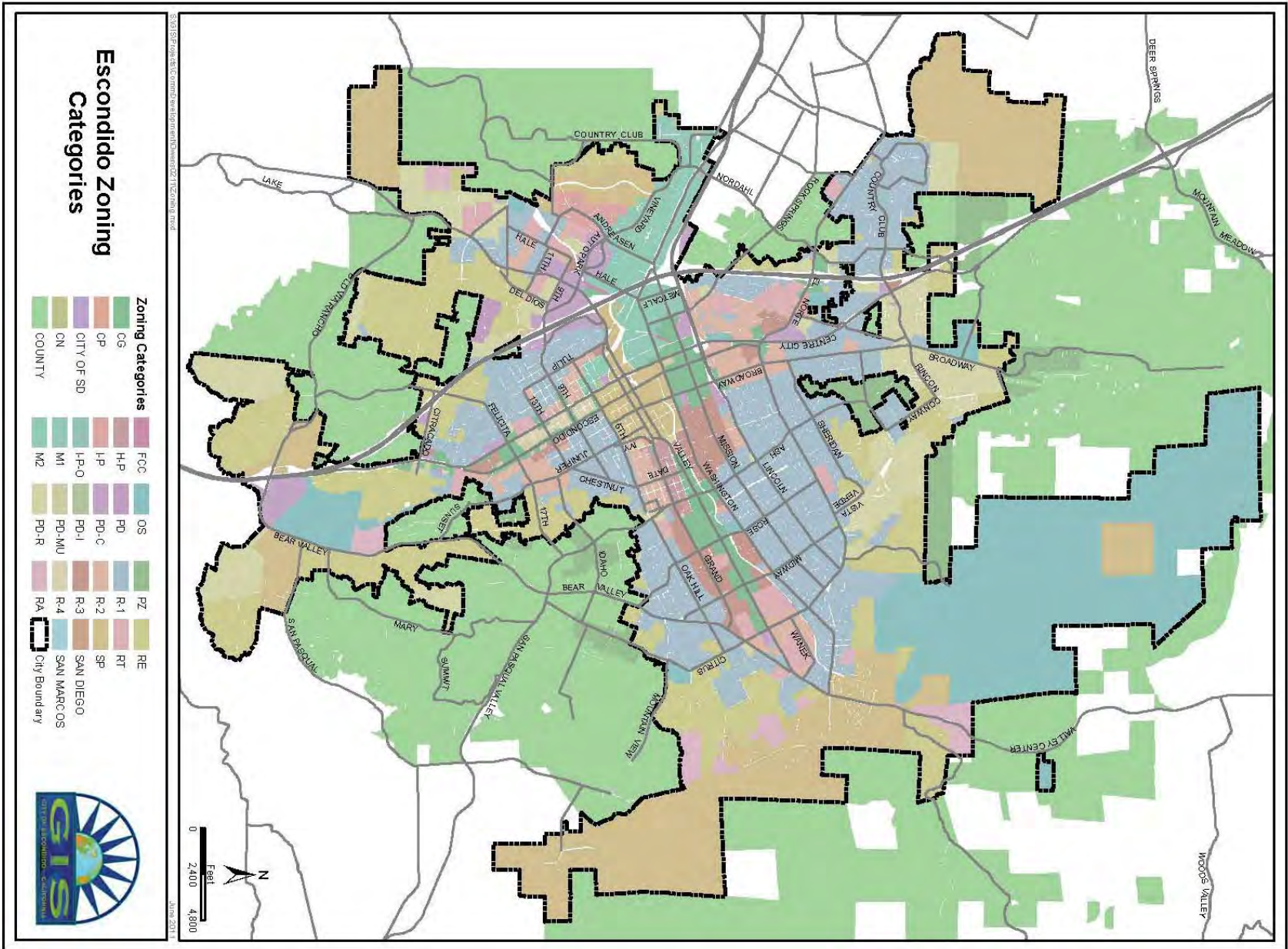


EXHIBIT G

5TH CYCLE REGIONAL HOUSING NEEDS ASSESSMENT (RHNA) FACT SHEET



2019 Household Income Categories for a Family of Four

Very Low Income =
\$53,500 or less

Low Income =
\$53,501 - \$85,600

Moderate Income =
\$85,601 – \$103,550

Above Moderate Income =
\$103,551 or more

The Regional Housing Needs Assessment (RHNA) is a state mandated process that quantifies existing and future housing needs within a region and requires local governments to plan for enough housing to meet the region's need. The San Diego Association of Governments (SANDAG) is responsible for overseeing the RHNA process for the San Diego region. The RHNA process has four main components:

- » RHNA Determination – The California Department of Housing and Community Development (HCD), in consultation with SANDAG, calculates a regionwide housing need determination based on projections about headship, vacancy rates, household size, and other factors. The housing need is divided into four income categories: very low, low, moderate, and above moderate.
- » RHNA Plan Methodology – SANDAG and the 19 jurisdictions in the region (18 cities and the County of San Diego) prepare a methodology that distributes the RHNA Determination to each jurisdiction while furthering state objectives and factors.
- » RHNA Plan Allocation – Using the methodology, the RHNA Plan includes an allocation of housing units to each jurisdiction in four income categories.
- » Housing Element Updates – Each jurisdiction updates the housing element in its general plan to accommodate the RHNA Plan allocation.

Senate Bill 375 requires consistency between the RHNA Plan and the development pattern of the Sustainable Communities Strategy (SCS). It also requires that the SCS land use pattern, and therefore the RHNA, assist the region in meeting the greenhouse gas (GHG) reduction targets set by the California Air Resources Board.

5th Cycle

The RHNA Determination for the 5th Housing Element Cycle required the San Diego region to plan for 161,980 housing units during the period between January 1, 2013 and December 31, 2020. The development of the 5th Cycle RHNA Plan took place over a 12-month period during numerous public meetings conducted by the Regional Planning Technical Working Group, Regional Planning Committee, and SANDAG Board of Directors.

The 5th Cycle RHNA Plan was approved by the Board in October 2011 and incorporated into San Diego Forward: The Regional Plan in October 2015.

The 5th Cycle RHNA Plan distributes housing in accordance with the land use pattern in the 2050 Regional Transportation Plan and SCS and the four RHNA objectives in state law:

- » reflecting the region's commitment to planning for housing for all income levels in all jurisdictions
- » balancing jobs and housing
- » focusing development in our urban areas
- » protecting our rural areas, open space, and habitat lands.

Each jurisdiction has updated the housing element in its general plan and continues to implement the 5th Cycle RHNA Plan.

To read more about the RHNA, visit: sandag.org/rhna.



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Regionwide Distribution of RHNA Determination by Income Category

January 1, 2010 – December 31, 2020
(RHNA Projection Period)

Income categories	%	units
Very low	22.5%	36,450
Low	17.1%	27,700
Moderate	18.9%	30,610
Above moderate	41.5%	67,220
TOTAL		161,980

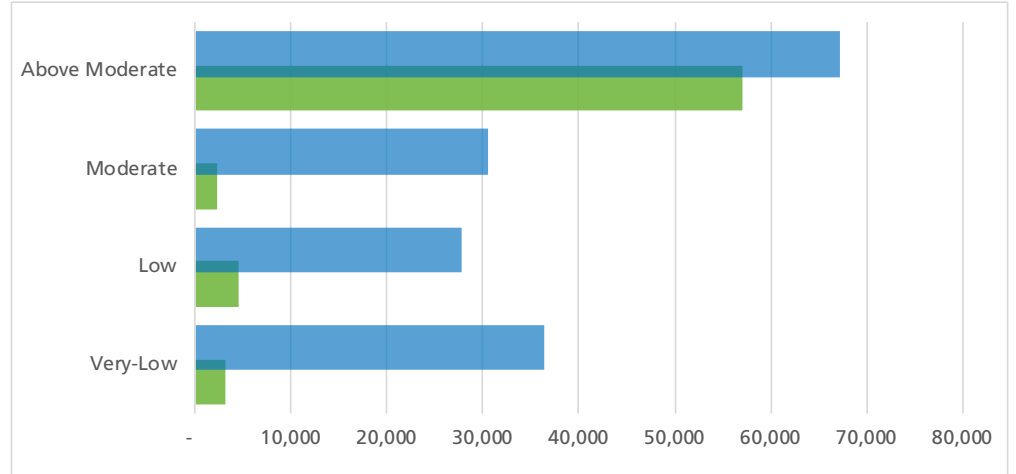


Final RHNA Methodology and Allocation

Regional Housing Needs Assessment for 5th Housing Element Cycle (2010–2020)

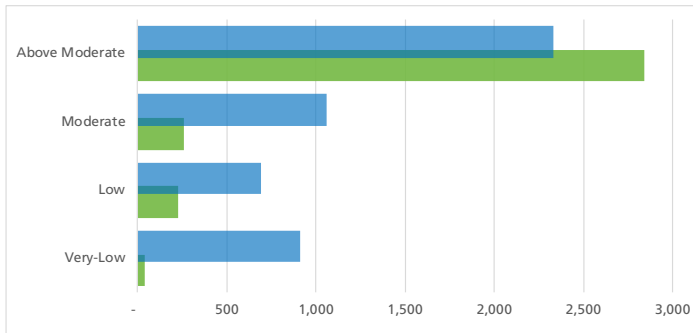
■ RHNA Allocation
■ Permits Issued (2010–2018)

SAN DIEGO REGION TOTALS

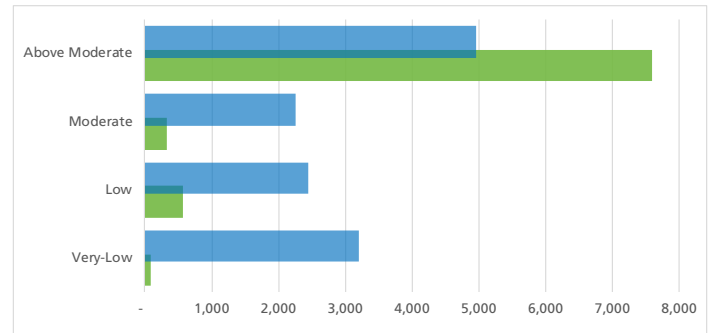


By Jurisdiction

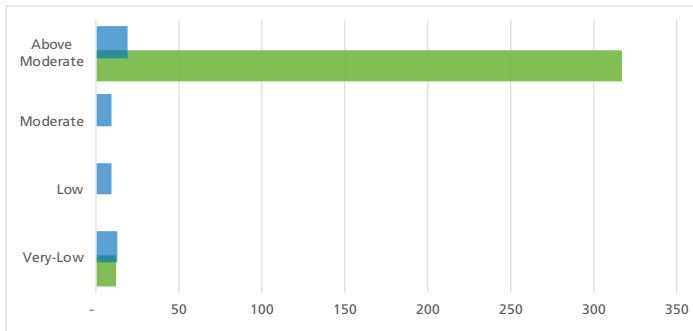
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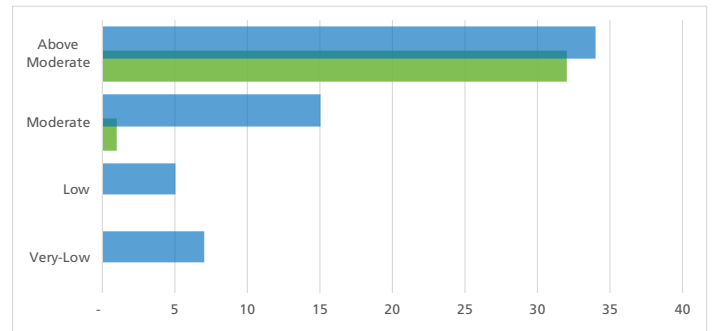
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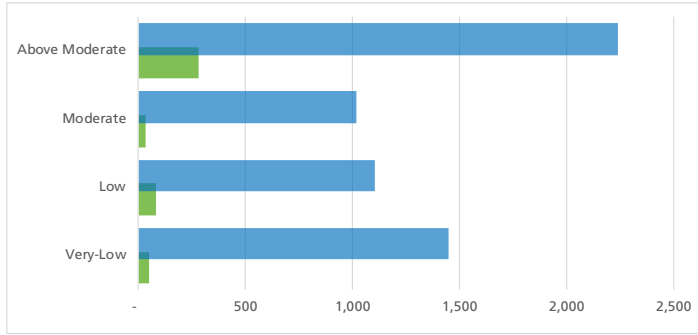
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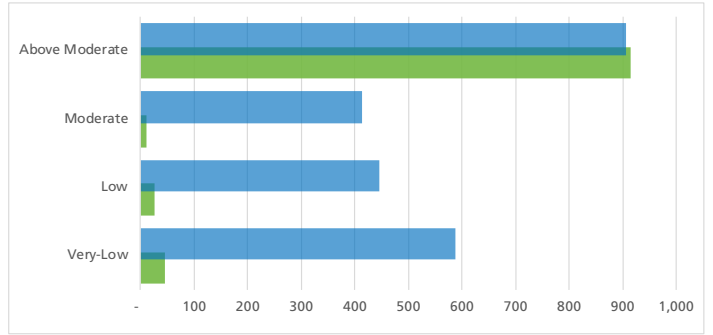
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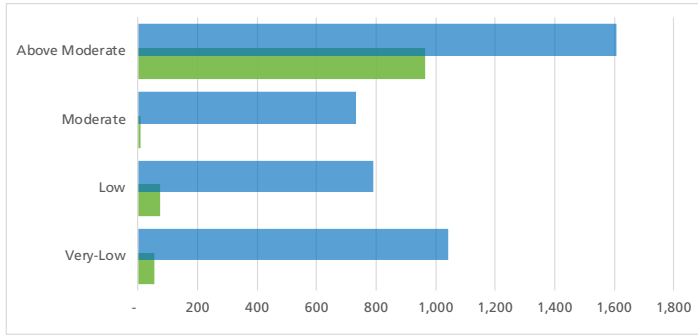
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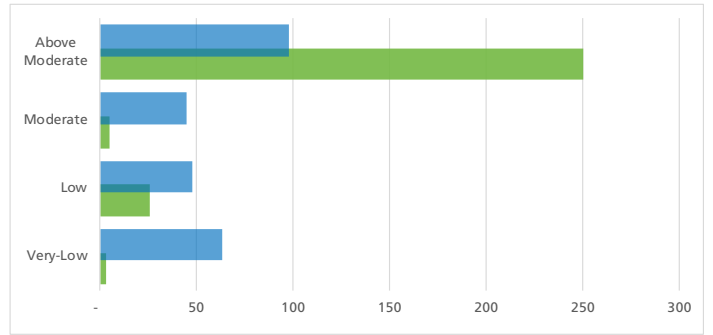
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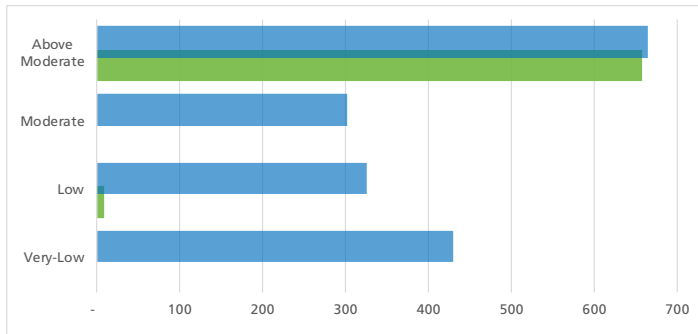
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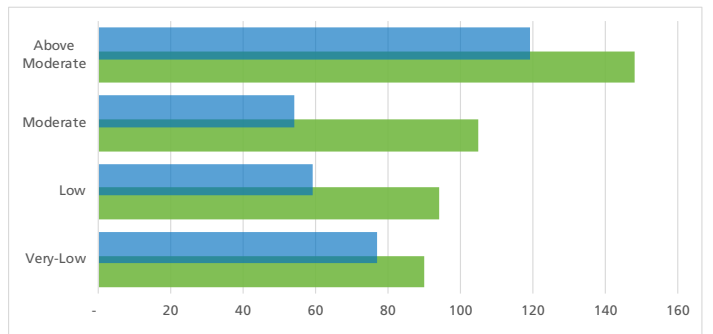
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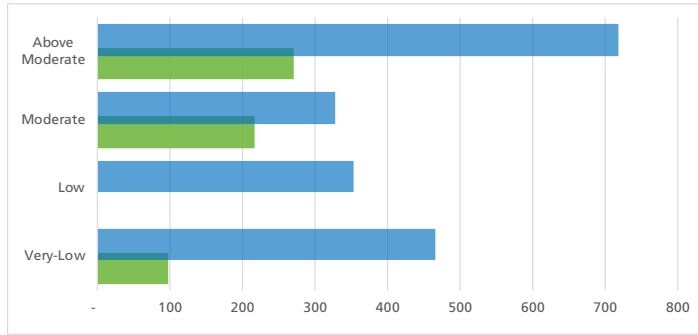
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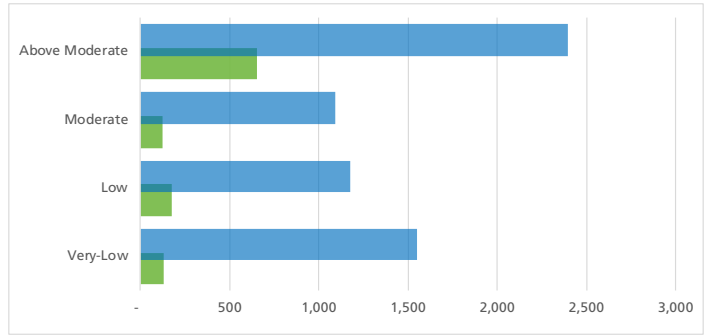
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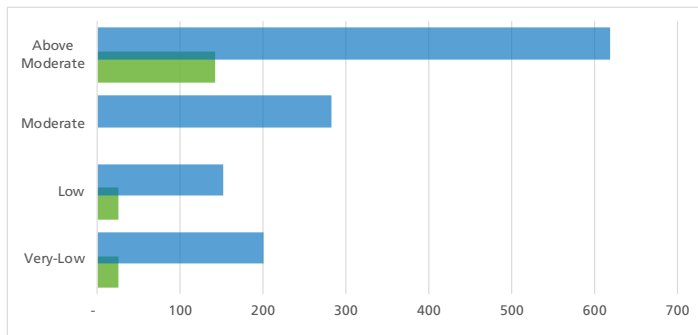
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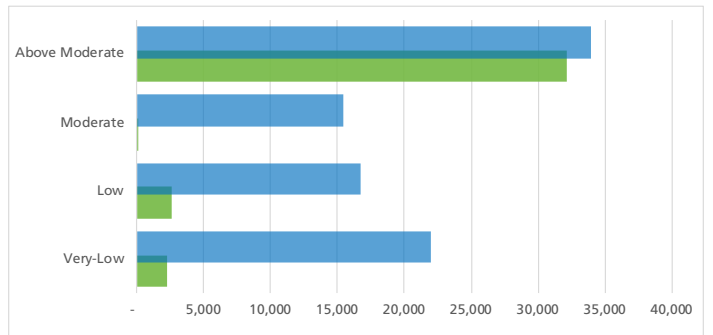
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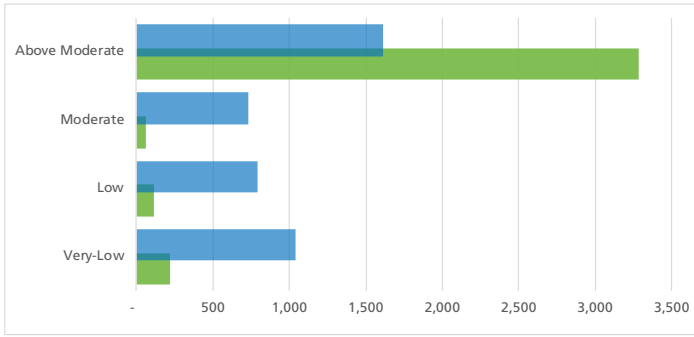
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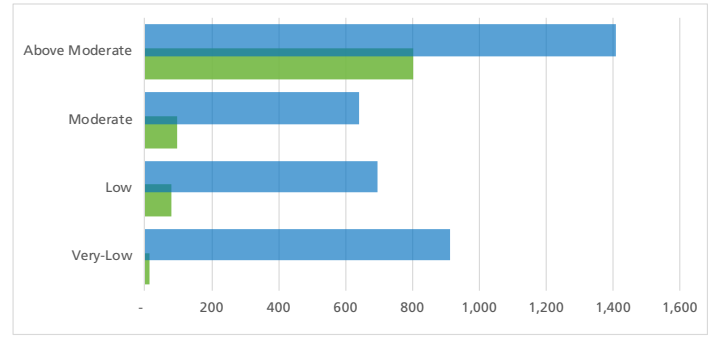
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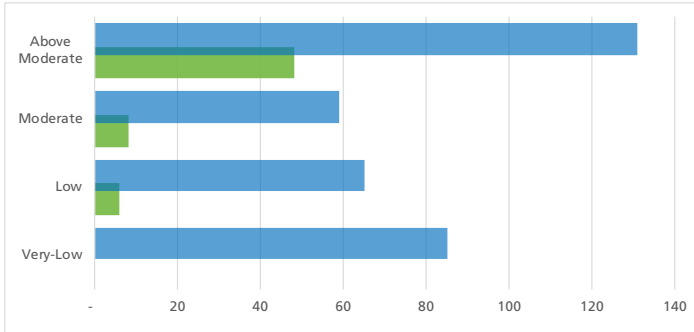
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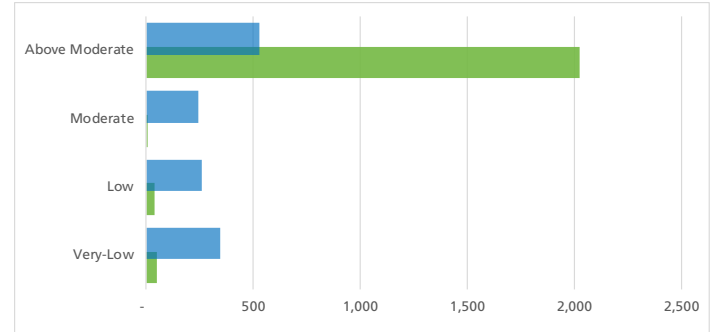
SANTEE



SOLANA BEACH



VISTA



UNINCORPORATED

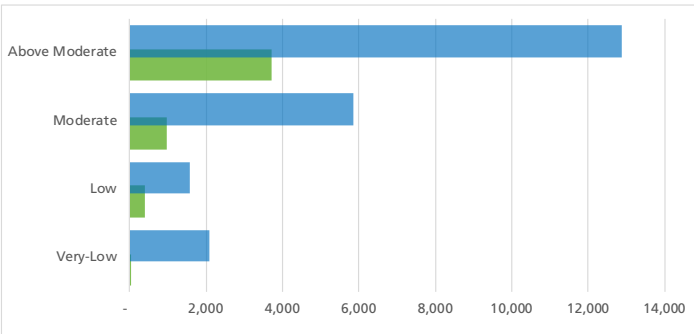


EXHIBIT H

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
 (CCR Title 25 §6202)

Jurisdiction City of Escondido
 Reporting Period 1/1/2017 - 12/31/2017

Table A
Annual Building Activity Report Summary - New Construction
Very Low-, Low-, and Mixed-Income Multifamily Projects

Housing Development Information							Housing with Financial Assistance and/or Deed Restrictions		Housing without Financial Assistance or Deed Restrictions		
1	2	3	4				5	5a	6	7	8
Project Identifier (may be APN No., project name or address)	Unit Category	Tenure R=Renter O=Owner	Affordability by Household Incomes				Total Units per Project	Est. # Infill Units*	Assistance Programs for Each Development	Deed Restricted Units	Note below the number of units determined to be affordable without financial or deed restrictions and attach an explanation how the jurisdiction determined the units were affordable. Refer to instructions.
			Very Low- Income	Low- Income	Moderate- Income	Above Moderate- Income			See Instructions	See Instructions	
Veterans' Village	5+	R	29	19			48	48	Other	Reg Agmt	
Solutions for Change	5+	R	17	15		1	33	33	RDA, TCAC	Reg Agmt	
(9) Total of Moderate and Above Moderate from Table A3			5	409							
(10) Total by income Table A/A3			46	34	5	410	Total:	495			
(11) Total Extremely Low-Income Units*			17								

* Note: These fields are voluntary

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
 (CCR Title 25 §6202)

Jurisdiction City of Escondido
Reporting Period 1/1/2017 - 12/31/2017

Table A2
Annual Building Activity Report Summary - Units Rehabilitated, Preserved and Acquired pursuant to GC Section 65583.1(c)(1)

Please note: Units may only be credited to the table below when a jurisdiction has included a program in its housing element to rehabilitate, preserve or acquire units to accommodate a portion of its RHNA which meet the specific criteria as outlined in GC Section 65583.1(c)(1)

Activity Type	Affordability by Household Incomes				(4) The Description should adequately document how each unit complies with subsection (c)(7) of Government Code Section 65583.1
	Extremely Low-Income*	Very Low-Income	Low-Income	TOTAL UNITS	
(1) Rehabilitation Activity				0	
(2) Preservation of Units At-Risk				0	
(3) Acquisition of Units				0	
(5) Total Units by Income	0	0	0	0	

* Note: This field is voluntary

Table A3
Annual building Activity Report Summary for Above Moderate-Income Units
(not including those units reported on Table A)

	1. Single Family	2. 2 - 4 Units	3. 5+ Units	4. Second Unit	5. Mobile Homes	6. Total	7. Number of infill units*
No. of Units Permitted for Moderate	0	0	0	5	0	5	
No. of Units Permitted for Above Moderate	233	0	176	0		409	

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation
 (CCR Title 25 §6202)

Jurisdiction City of Escondido
Reporting Period 1/1/2017 - 12/31/2017

Table B

Regional Housing Needs Allocation Progress

Permitted Units Issued by Affordability

Enter Calendar Year starting with the first year of the RHNA allocation period. See Example.		2013	2014	2015	2016	2017	2018	2019	2020		Total Units to Date (all years)	Total Remaining RHNA by Income Level
Income Level	RHNA Allocation by Income Level	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8			
Very Low	Deed Restricted	1,042	7	0	0	0	46				53	989
	Non-deed restricted											
Low	Deed Restricted	791	28	0	11	0	34				73	717
	Non-deed restricted		1									
Moderate	Deed Restricted	733	0	0	0	0					0	727
	Non-deed restricted					1	5					
Above Moderate		1,609	108	56	7	163	410				744	865
Total RHNA by COG. Enter allocation number:		4,175	144	56	18	164	495				877	3,298
Total Units ▶ ▶ ▶												
Remaining Need for RHNA Period ▶ ▶ ▶ ▶ ▶												

Note: units serving extremely low-income households are included in the very low-income permitted units totals.

Jurisdiction City of Escondido

Reporting Period 1/1/17-12/31/17

Table C
Program Implementation Status

Program Description (By Housing Element Program Names)		Housing Programs Progress Report - Government Code Section 65583 Describe progress of all programs including progress in removing regulatory barriers.	
Name of Program:	Objective	Timeframe in H.E.	Status of Program Implementation as of 12-31-17
1.1: Project Development Create increased supply of affordable housing units for lower income households, including those households with extremely low incomes. Every effort will be made to accomplish this through redevelopment and acquisition/rehabilitation.	Anticipated impact: Increased supply of rental units for extremely low-, very low- and low-income residents 300 units	Ongoing	The City recently contracted with both Community HousingWorks and Solutions for Change to develop affordable rental projects consisting of acquisition/rehabilitation of existing units (CHW) and new construction (Solutions for Change). The CHW project was completed in April 2017, and consists of 11 HOME affordable units out of 200 total affordable units in the project. Solutions for Change completed construction of a new, affordable rental project consisting of 33 units (32 affordable) in July 2017. 32 new affordable units were completed in 2017.
1.2: Lot Consolidation Encourage consolidation of small lots to utilize land more efficiently and facilitate the development of mixed use and affordable multi-family developments	Anticipated impact: Facilitate development as envisioned in the General Plan.	Ongoing	A ministerial process is utilized for basic lot consolidation. The City continues to encourage consolidation of lots to facilitate mixed-use and affordable developments.
1.3 Infill New Construction Support new construction of homeownership and rental units and redevelopment/revitalization on infill sites. The City also encourages recycling and revitalizing of sites for a variety of housing types and income levels.	Anticipated impact: New housing opportunities for homeownership and rental for low- and moderate-income households.	Ongoing	Solutions for Change completed construction on an affordable rental project of 33 units on an infill site on South Escondido Boulevard, in July 2017.

Name of Program:	Objective	Timeframe in H.E.	Status of Program Implementation as of 12-31-17
<p>1.4 City-owned Sites Facilitate the redevelopment/development of affordable housing on City-owned sites</p>	<p>Anticipated impact: Sites for affordable housing. Use City-ownership as a potential inducement for rehabilitation of more affordable housing</p>	<p>Ongoing</p>	<p>The Housing and Neighborhood Services Division, the Engineering Services Department and the City's Real Property Agent continue to review City-owned properties when they become available as potential sites for redevelopment as affordable housing.</p>
<p>1.5 Density Bonus Amend Density Bonus Ordinance to be consistent with State law</p>	<p>Anticipated impact: Additional housing opportunities for low- and moderate-income households.</p>	<p>0-3 years from HE adoption</p>	<p>City Planning staff completed an amendment to the Zoning Code in May 2017 to modify the Density Bonus provisions so they are in conformance with State law.</p>
<p>2.1 Housing Rehabilitation: Renter Occupied Continue to explore potential rental rehabilitation programs</p>	<p>Anticipated impact: Increase rental rehabilitation for lower income households (25 units).</p>	<p>Ongoing</p>	<p>Staff will continue to explore funding opportunities for a new renter-occupied rehabilitation program. Funding from a CalHOME grant allowed the City to re-establish an owner-occupied rehabilitation program for low-income households in single-family residences and mobilehomes in 2015. 4 loans were funded in 2016. One loan was funded in 2017, prior to the program ending in September 2017.</p>
<p>2.2 Acquisition/Rehabilitation Continue to explore ways to encourage the recycling of deteriorated and older structures for affordable housing opportunities</p>	<p>Anticipated impact: Additional affordable housing opportunities for lower income households. (200 Units)</p>	<p>Ongoing</p>	<p>Recycling of existing, dilapidated structures continues to be a priority in Escondido. An RFP was sent out in August 2014 for affordable housing developers, which resulted in contracts with two developers who developed affordable rental projects consisting of acquisition/rehabilitation of existing units. Community HousingWorks completed 11 units within a 200-unit development in 2017, and Urban Housing Communities rehabilitated a 44-unit development, which was completed in 2015. Interfaith Community Services responded to an RFP in 2017 and is in the process of completing acquisition/rehabilitation of an existing 4-unit residential project for affordable units.</p>

Name of Program:	Objective	Timeframe in H.E.	Status of Program Implementation as of 12-31-17
<p>2.3 Focus on Neighborhoods Collaborate with departments to channel resources and efforts into improvement of neighborhood quality of life, including code enforcement, housing rehabilitation and capital improvements.</p>	<p>Anticipated impact: The concentration of City resources to one neighborhood and the opportunity for significant community impact both in physical improvement and improvement in quality of life for neighborhood residents. (Low- and moderate-income categories). Continue collaborative efforts through funding resources, policies and community outreach.</p>	<p>Ongoing</p>	<p>Currently there are 18 recognized neighborhood groups. Project NEAT was started in 2010 to assist residents in solving their own neighborhood problems at a neighborhood (rather than Code Enforcement) level, such as maintenance, graffiti, minor repairs and trash. This effort utilizes Community Development Block Grant (CDBG) funding.</p> <p>The joint efforts to combine resources in targeted neighborhoods, including CDBG funding, grants, and outside financing, will continue, including coordination of public improvements with proposed affordable developments, and neighborhood oriented clean-up projects. Neighborhood collaboration also will be coordinated with the Police Department and other City Departments through the Neighborhood Transformation Project (NTP).</p> <p>In 2017 the City Council approved the 2017-2018 City Council Action Plan, which includes a Neighborhood Improvement element. This element includes strategies for improving aging neighborhoods, including increasing code enforcement activity, addressing issues related to homelessness, improving neighborhood appearance, improving traffic flow, developing more recreation opportunities for youth, and improving park, public works and library facilities.</p>

Name of Program:	Objective	Timeframe in H.E.	Status of Program Implementation as of 12-31-17
<p>2.4 Preservation of at-Risk Housing Continue to explore means to continue housing affordability for lower income households that would be impacted by the conversion of subsidized projects to market-rate housing</p>	<p>Anticipated impact: Continued affordability of subsidized housing developments.</p> <p>If owner wishes to sell, contact potential buyers who would want to extend affordability and, if unsuccessful, follow-up with Section 8 and relocation potential</p>	Ongoing	<p>The City will continue to monitor at-risk units, particularly those identified in the Housing Element. This effort is ongoing. The City worked with Community HousingWorks to preserve the affordability of 200 units in Cypress Cove (now Manzanita) while extending affordability on 11 of the units using HOME funds. No at-risk units were lost in 2017.</p>
<p>3.1: First-Time Homebuyer/Home Entry Loan Program (HELP) Provide low-interest loans to lower income households for closing costs and down payment, of lesser of 5% of purchase price or \$25,000, using federal HOME loans.</p>	<p>Anticipated impact: Increased homeownership opportunities for lower income households (150 households).</p>	Ongoing	<p>0 HELP loans funded during 2017 0 HELP loans funded during 2016 4 HELP loans funded during 2015 2 HELP loans funded during 2014 <u>3 HELP loans funded during 2013</u> 9 Total</p> <p>In December 2017, Housing and Neighborhood Services staff met with local real estate professionals to discuss possible impediments to FTHB loans and possible solutions.</p>
<p>3.2 First-Time Homebuyer/Mortgage Credit Certificates Provide mortgage credit certificates to first-time homebuyers to reduce federal income taxes and more easily qualify for a loan.</p>	<p>Anticipated impact: Additional homeownership opportunities for low- and moderate-income households (20 households).</p>	Ongoing	<p>Although MCCs will remain available to Escondido residents, the local MCC administrator retired and MCCs will not be reported locally after 2014.</p>

Name of Program:	Objective	Timeframe in H.E.	Status of Program Implementation as of 12-31-17
<p>3.3 Rental Subsidy Provide households with affordable rents through rent subsidy programs for households with incomes not exceeding 50% of the Area Median Income.</p>	<p>Collaborate with HUD (and the Housing Authority of San Diego County) toward the provision of Section 8 Rental Subsidy to households earning 50% or less of the median income</p> <p>Provide rental subsidy to low-income seniors and persons with disabilities in mobilehomes parks and apartments</p> <p>Anticipated impact: Rental Assistance for very low-income households, 1,200 households, with Housing Choice Vouchers. 110 very low income senior/disabled households for rent subsidies</p>	<p>Ongoing</p>	<p>Ongoing. During 2017, 1,066 Escondido households were assisted with a Section 8 Rental Subsidy (Housing Choice Voucher). An additional 10,046 are on the wait list in Escondido.</p> <p>During 2016, 26 senior households (or persons with a disability) in mobilehome parks, and another 11 in apartments, for a total of 37, were receiving a monthly rental subsidy while waiting for HUD Section 8 eligibility. Eligibility for the Rental Subsidy program was tightened in 2012 due to the loss of redevelopment funds. Continuation of the program in the future is uncertain.</p>
<p>3.4 Mobilehome Park Conversion Provide technical assistance to mobilehome resident groups in the conversion of existing parks to resident ownership</p>	<p>Anticipated impact: Continued mobilehome resident ownership opportunities for lower income residents. Continue to work with City policies and procedures to assist in conversion</p>	<p>Ongoing</p>	<p>The City continues to provide technical assistance to mobilehome parks considering conversions to resident ownership. No recent conversions have been requested. The City continues to manage the remaining city-owned spaces in Escondido Views (5 lots) and Mountain Shadows (23 lots).</p>
<p>3.5 Mobilehome Rent Review Rent review via the Rent Review Board of applications for increases in mobilehome parks</p>	<p>Anticipated impact: Stabilized rents for mobilehome residents, many of whom are lower income.</p>	<p>Ongoing</p>	<p>During 2017, four short-form rent review hearings and no long-form rent review hearing were held. Average monthly increases approved for short form applications ranged from \$6.79 to \$14.30.</p>

Name of Program:	Objective	Timeframe in H.E.	Status of Program Implementation as of 12-31-17
<p>3.6: Fair Housing Actively engage in furthering fair housing for all residents through specific education outreach and monitoring activities</p>	<p>Anticipated impact: Continued enforcement of the Fair Housing Plan which will prevent discrimination in housing and disputes between landlords and tenants</p>	<p>Ongoing</p>	<p>In 2017 the City contracted with the Legal Aid Society of San Diego, Inc. to provide fair housing services to Escondido residents, including counseling, mediation in landlord/tenant disputes, and bilingual assistance.</p> <p>City staff continues to disperse information at public counters, review potential impediments to fair housing, and meet with other jurisdictions to discuss and address potential regional impediments. The City of Escondido has been working collaboratively with other jurisdictions in the San Diego County region to address the requirements for Affirmatively Furthering Fair Housing. Following HUD's current requirements, an Analysis of Impediments (AI) will be completed for the region.</p>
<p>4.1 Emergency Shelters Amend the Zoning Code to permit emergency shelters by right, consistent with State law.</p>	<p>Anticipated impact: Provision of shelter for families/individuals with special needs. Consistency with state law.</p>	<p>Within one year of Housing Element adoption</p>	<p>The City's Emergency Shelter Overlay, in compliance with State law, was approved by the City Council on October 23, 2013. Although staff was asked to re-evaluate the location and size of the Overlay in 2015, the City Council left the overlay unchanged and the City is in compliance. A year round shelter operated by Interfaith Community Services currently operates outside the Overlay area.</p>
<p>4.2: Transitional/Supportive Housing Amend the Zoning Code to differentiate transitional/supportive housing operated as group quarters versus a regular housing development. Uses will be permitted where housing is otherwise permitted.</p>	<p>Anticipated impact: Increased housing opportunities for special needs persons.</p>	<p>0-3 years from HE adoption</p>	<p>An amendment to the Zoning Code to define transitional and supportive units as specified in State law, and to permit them where residential units are otherwise permitted, was completed in June 2017.</p>
<p>4.3: Senior Housing Ordinance Amend the Zoning Code to permit senior housing by right where housing is permitted.</p>	<p>Anticipated impact: Increased housing opportunities for seniors</p>	<p>0-3 years from HE adoption</p>	<p>An amendment to the Zoning Code to permit senior housing by right where housing is permitted, was completed in June 2017.</p>

<p>4.4: Monitoring of Growth Management Measure Periodically monitor and evaluate Proposition S for its impacts on the cost, supply and timing of affordable housing. Analyze the ability to accommodate the city's regional housing need, constraints on supply and affordability of housing.</p>	<p>Anticipated impact: Increased public awareness of the City's housing needs and obligations under state law.</p>	<p>Ongoing</p>	<p>The Housing Element shows that the City's RHNA can be accommodated. In 2017 it does not appear that existence of Proposition "S" discouraged or prevented construction of market or affordable units. City will continue to monitor RHNA progress annually to determine whether growth management policies impact the city's ability to accommodate the affordable housing need.</p>
<p>Name of Program:</p>	<p>Objective</p>	<p>Timeframe in H.E.</p>	<p>Status of Program Implementation as of 12-31-17</p>
<p>5.1: Affordable Housing Financing Continue to pursue a variety of funding sources to support affordable housing in the community.</p>	<p>Anticipated impact: Acquisition, rehabilitation, preservation or construction of affordable housing for lower and moderate income households.</p>	<p>Ongoing</p>	<p>Staff continues to pursue all available opportunities to utilize additional funding sources for potential projects and programs, including tax credits and grants.</p>
<p>5.2: Housing Information and Referral Update public information in many formats identifying the City's housing programs and provide opportunities to market those programs.</p>	<p>Anticipated impact: More effective and targeted housing programs (especially for lower income households).</p>	<p>Ongoing</p>	<p>Housing program and project information is updated as needed and is distributed via a variety of avenues, such as the City website, brochures, mailers, referral cards and at City Hall. The city website was updated in late 2010 and again at the beginning of 2018. Updates to the website are ongoing as needed. In 2016 the Housing and Neighborhood Services Divisions were merged into the Housing and Neighborhood Services Division under the Housing and Neighborhood Services Manager. This allows for streamlined assistance to the public. Staff continues to seek additional ways to distribute information to the public.</p>

CONSTRAINTS

The 2013-2020 Housing Element listed the following governmental constraints. The specific issue, page number, action and status are listed below.

Issue	Page #	Action	Status
Land Use Controls Residential designations, specific plans, growth management controls, overlay zones/districts, and the density bonus ordinance	IV-67	Evaluate land use issues for direct impact on provision of housing for all economic sectors of the community.	The City's General Plan comprehensive update was completed in 2012, including increasing densities with a new Urban V designation and introducing minimum floor densities in some urban areas. The Downtown Specific Plan was updated in 2013, including increasing residential densities (up to 100 du/ac) in the downtown core, which should lead to an increase in production of multi-family units. The City is currently working with a consultant to update the South Escondido Boulevard Area Plan, which will incorporate smart growth principles, allowing additional opportunities for mixed-use and transit oriented development. The Plan is anticipated to be completed in early 2018.
Residential Development Standards	IV-76	Evaluate residential development standards to ensure they are not unreasonably limiting the number of units that may be constructed.	Development standards and parcel requirements offer flexibility to encourage development. With the adoption of the revised density bonus and residential incentive ordinance in 2017 more flexibility will be available to affordable housing developers. In 2017 standards for developing Accessory Dwelling Units were modified and brought into compliance with the State. During 2017 many other sections of the Zoning Code were updated for consistency with state law. Development standards will continue to be reviewed as needed.

<p>Provision for a Variety of Housing Opportunities</p>	<p>IV-80</p>	<p>A jurisdiction must encourage the development of a variety of housing types for all economic segments of the population.</p>	<p>The General Plan calls for establishing a minimum density for each district, to promote efficient use of land. The Escondido Zoning Code has provisions for ADUs, mobilehomes, multi-family dwellings, and residential care facilities. Also, SROs and farmworker housing. In 2013, the City approved a zoning overlay where emergency shelters are permitted by right, in accordance with state law. Similar code amendments were completed in 2017 for transitional/supportive housing and some clean-up language for senior housing. There are no other known policies or regulations that constrain development of housing for persons with disabilities.</p>
<p>Development Conditions and Fees Fees and exactions to process permits and provide services and facilities can be a constraint to the development of housing due to the additional cost borne by developers.</p>	<p>IV-90</p>	<p>The City periodically reviews fees to ensure they reflect current impacts and necessary impacts.</p>	<p>Escondido's residential development fees have been reviewed and have not been found to act as a constraint to the development of housing. They are lower than those of many other north county cities. The development fees will continue to be reviewed periodically and modified as needed.</p>
<p>On- and Off-Site Improvements Existing infrastructure, development standards for new infrastructure, requirements for on-and off-site improvements.</p>	<p>IV-92</p>	<p>Requirements for on- and off-site improvements vary depending on the presence of existing improvements, as well as the size and nature of the proposed development.</p>	<p>Requirements are reviewed as necessary.</p>
<p>Building Codes and Enforcement</p>	<p>IV-94</p>	<p>The 2016 California Building Codes and Green Building Standards Code have been adopted by the City.</p>	<p>The City has no local ability to waive provisions of State building codes. However, there is an appeal process to challenge interpretations of the building code requirements.</p>
<p>Permits and Processing Times Certainty and consistency in permit processing procedures and reasonable processing times to ensure that developers are not discouraged.</p>	<p>IV-95</p>	<p>The existing design review and conditional use permit processes have been streamlined, and do not serve to constrain housing development.</p>	<p>The City continues to explore ways to streamline processing of applications and reduce fees for affordable, fair market and mixed use housing. During the current HE cycle the Design Review Board was consolidated into the Planning Commission in an effort to streamline processing. Other options to streamline development are being reviewed.</p>

EXHIBIT I

CITY OF ESCONDIDO

ACTION MINUTES OF THE REGULAR MEETING OF THE
ESCONDIDO PLANNING COMMISSION

April 9, 2019

The meeting of the Escondido Planning Commission was called to order at 7:00 p.m. by Chairman Spann, in the City Council Chambers, 201 North Broadway, Escondido, California.

Commissioners present: James Spann, Chairman; Don Romo, Vice-chairman; Michael Cohen, Commissioner; Joe Garcia, Commissioner; James McNair, Commissioner; Mark Watson, Commissioner; and Stan Weiler, Commissioner.

Commissioners absent: None.

Staff present: Bill Martin, Director of Community Development; Owen Tunnell, Principal Engineer; Adam Phillips, Senior Deputy City Attorney; Peggy Chapin, Contract Planner; Jay Paul, Senior Planner; Adam Finestone, Principal Planner; and Kirsten Peraino, Minutes Clerk.

MINUTES:

Moved by Commissioner Watson, seconded by Commissioner Cohen to approve the Action Minutes of the March 26, 2019 meeting. Motion carried unanimously (7-0-0)

WRITTEN COMMUNICATIONS: – Received.

FUTURE NEIGHBORHOOD MEETINGS: – None.

ORAL COMMUNICATIONS: – None.

PUBLIC HEARINGS:

1. **DOWNTOWN SPECIFIC PLAN AMENDMENT TO ALLOW DENSITY TRANSFER CREDITS WITHIN THE DOWNTOWN SPECIFIC PLAN AREA – PHG 17-0024 (Continued from March 26, 2019):**

REQUEST: A proposed amendment to the Downtown Specific Plan (DSP) to create a Density Transfer Program that would enable the City to transfer residential density from undeveloped or underutilized properties (sending areas) to developing properties (receiving areas) within the DSP. The overall amount of permitted residential development within the DSP would remain unchanged at a maximum of 5,275 dwelling units previously established in the General Plan. The proposal also includes the adoption of an addendum to the previously certified Environmental Impact Report for the 2012 General Plan and Downtown Specific Plan Update.

PROPERTY SIZE AND LOCATION: Approximately 475 acres extending from I-15 and West Valley Parkway to Palomar Hospital Downtown, between Washington and Fifth Avenues.

ENVIRONMENTAL STATUS: Addendum to the Escondido General Plan Update, Downtown Specific Plan Update, and Climate Action Plan Final Environmental Impact Report for the Proposed Density Transfer Program was prepared for the DSP Amendment by Harris & Associates, March 1, 2019.

COMMISSIONER DISCLOSURE: Commissioner Romo shared that he is a board member of the Chamber of Commerce. Commissioner Romo stated that he did not participate in recent conversations by the Chamber of Commerce regarding the Density Transfer Program, and that the Board’s discussion of the Density Transfer Program did not influence his decision as a Commissioner.

Director of Community Development Bill Martin shared staff’s recent public outreach efforts regarding the Density Transfer Program including a flyer, posted on the City of Escondido website, and a presentation at an “open house” workshop on April 8, 2019. Bill Martin also apologized for mischaracterizing the Old Escondido Neighborhood comments and explained why comments from the Historic Preservation Commission meeting were not included in the original staff report.

PUBLIC SPEAKERS:

Alex McLachlan, Downtown Business Association (DBA), spoke in support of project.

Todd Stevens, Grand Avenue business owner spoke in support of project.

Dan Forester, Downtown Business Association (DBA) and Grand Avenue business owner spoke in support of project.

Diana Gil, Filippi's Pizza Grotto, spoke in opposition to the project voicing concerns about downtown parking.

Carol Rea, Historic Preservation Committee (HPC), spoke in opposition to the project stating it will destroy the character of downtown.

Tom Stamos, Chamber of Commerce board member, expressed support for the project.

Maya Rosas, Circulate San Diego Policy Director, spoke in favor of project.

Nicole Purvis, Historic Preservation Commission (HPC), voiced her opposition to the project.

Patricia Borchmann, spoke in opposition to the project but appreciated staff and Commission's efforts to increase public participation.

Lisa Walker, voiced concern about the project and asked Commissioners to ask for conditions if approved.

COMMISSIONER DISCUSSION AND QUESTIONS

The Commissioners discussed the various aspects of the project.

COMMISSION ACTION:

Moved by Commissioner Weiler, seconded by Commissioner Romo to approve the staff's recommendation. Motion carried (6-1-0) Ayes: Cohen, Garcia, McNair, Romo, Watson and Weiler. Noes: Spann.

**2. MODIFICATION TO A MASTER DEVELOPMENT PLAN AND
CONDITIONAL USE PERMIT – PHG 19-0003:**

REQUEST: A Modification to a previously approved Master Development Plan and a Conditional Use Permit to allow for the installation of a drive-through lane for an existing out-pad building within the Felicita Town Center. A reduction in the amount of parking spaces required for the commercial center is requested in order to support the drive-through lane, landscape features, and construction of a new trash enclosure. A request to encroach into the required 10-foot street-side setback also is requested for a proposed architectural feature that would provide a cover over the drive-through pick-up window area.

PROPERTY SIZE AND LOCATION: The approximately 11.2-acre commercial center generally is located towards the southwestern corner of the intersection of South Centre City Parkway and Felicita Avenue, addressed as 1831 Centre City Parkway, in the City of Escondido, County of San Diego, California.

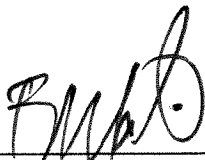
ENVIRONMENTAL STATUS: The Project is Categorically Exempt from the provisions of the California Environmental Quality Act (CEQA), pursuant to Section 15301/Class 1 “Existing Facilities” for additions to existing structures; and Section 15311, Class 11 “Accessory Structures” for the installation of accessory structures (appurtenant to) existing commercial, industrial, or institutional facilities, including but not limited small parking lots, on-premise signs, fencing, etc.

Moved by Commissioner Watson, seconded by Commissioner Cohen to approve staff’s recommendation with the revision to Engineering Condition No. 10 and authorized issuance of the CEQA Notice of Exemption. Motion carried unanimously. (7-0-0)

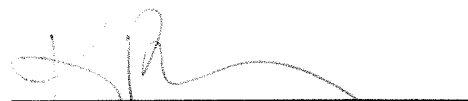
ADJOURNMENT:

Chair Spann adjourned the meeting at 8:18 p.m. to the next regularly scheduled Planning Commission meeting to be held at 7:00 p.m. on Tuesday, April 23, 2019 in the City Council Chambers, 201 North Broadway Escondido, California.

Note: There is no audio available for this meeting due to technical difficulties.



Bill Martin, Acting Secretary to the
Escondido Planning Commission



Kirsten Peraino, Minutes Clerk

EXHIBIT J

DRAFT
Density Transfer Program
March 26, 2019

Program Purpose

The purpose of the Density Transfer Program is to enable the City to transfer densities from undeveloped or underutilized properties (sending areas) within the Downtown Specific Plan (DSP) to developing properties (receiving areas) to enable a developing property to increase its density beyond what current zoning would permit. The transferred density would be held in a Density Credit Pool.

- ***Sending Area*** - Areas identified to be conserved or restrained from further growth or density. This may include an area or property where development has occurred and is currently underutilized and further development is not anticipated. The unused density is transferred to a Density Credit Pool.
- ***Receiving Area*** - Area identified as having additional potential for development beyond that allowed by existing zoning. The increased density can only be utilized by transferring of density from a Density Credit Pool.
- ***Density Credit Pool*** - A Density Transfer Pool consists of unused density from undeveloped or underutilized properties. Available density with the Density Credit Pool could be transferred to a developing parcel to increase the density beyond what is permitted through the current zoning. The overall transfer of density from sending areas to receiving areas would not exceed the overall planned density of a specific area.

Program Administration

The Density Transfer Program would establish a density credit pool. The City would kickstart the density credit pool with unused density from city-owned parcels within the DSP. The City would consider continuing to fill the density credit pool with excess unused density transferred from other undeveloped, developed, or developing properties that are not developing to the maximum density allowed by current zoning (sending areas). A deed restriction would be placed on a sending area property to document the transfer of unused density into the pool.

At a later time, the property owner of a sending property could request reallocation of transferred density should they desire to increase the density on their property if the density units are still available or if there are additional units available in the density credit pool.

Allocation of the density from the pool would only occur when developing properties request additional density beyond that permitted by current zoning. The request for an increase in units would require City Council approval of a Planned Development Permit. Provided there is adequate density available in the Pool, there would be no ceiling on the amount of density that could be requested, but rather each development would be scrutinized through the entitlement and environmental review process to ensure appropriate and desired development within the community.

A property owner or developer who requests density from the Density Credit Pool, would submit an application for a Planned Development Permit to the Planning Division. The Planning Divi-

sion would review the Planned Development application for completion, project design, environmental concerns, CEQA process, zoning compliance, and other City and state regulations.

When a development is approved to receive density from the Density Credit Pool, those density units would be deducted from the density credit pool. Monitoring of the density credit pool would be accomplished by utilizing tables which details information regarding sending and receiving properties and documents available density within the DSP. Comprehensive tables would list pertinent data for each sending and receiving property such as assessor parcel numbers, addresses, ownerships, acreages, existing dwelling units and/or allowable dwelling units, additional dwelling units requested, application dates, approval dates, available number of units within the district pool, and number of units approved, and resolution number approving the allocations.

Administration of the transfer of density between the density credit pool, sending areas, and receiving areas would be routinely monitored to ensure that the number of dwelling units for the DSP would not be permitted to exceed the buildout of 5,275 units. An annual report to the City Council regarding the DSP density pool would be presented by staff to outline approved projects, constructed projects, balance left in the density pool and recommendations for the upcoming year.

Density Transfer Program Benefits

The benefits of a Density Transfer Program and a Density Credit Pool include:

1. Simple effective method for maximizing density in the urban core to support an established business community.
2. City maintains oversight for managing transfers and density accounting.
3. There is no assumed "taking" property rights as only excess density is transferred into pool.
4. It is a mechanism that can transfer density without the expenditure of public funds.
5. The deed restriction is absolute as long as there is available density so there is no taking of property rights.
6. Consideration of requesting density is an option to each property owner who may have utilized only a portion of their density and may request additional density at later time.
7. There is no need to conduct costly appraisals or property evaluations.
8. It reduces negotiation of value of density but rather focus on benefits to the DSP.
9. It reduces administration time of monitoring sending and receiving areas, how much has been utilized, how much is left, has deed restrictions been prepared, recorded, monitored, etc.
10. Increased residential activity to the DSP would improve its financial viability and City's goals.
11. Improvements within DSP would further the goals of the DSP.
12. The City would realize increased property values and tax revenues.
13. It encourages new residential and mixed-use development because of the simplification of the process as it does not involve complex appraisals and negotiations.
14. It allows opportunities for a variety of housing for various income levels by increasing the amount of density in a development.

Adam Finestone

From: Mike Strong
Sent: Thursday, January 24, 2019 3:51 PM
To: Adam Finestone
Subject: FW: Palomar Height Project

Please save correspondences like this. At the end of the process we can batch all comments and have a viewing file or attachment.

We will also need to separately save CEQA comments submitted during circulation period.

From: Julie Procopio <jprocopio@escondido.org>
Sent: Thursday, January 24, 2019 3:41 PM
To: 'Rick Paul' <rickpaul01@yahoo.com>
Cc: Mike Strong <mstrong@escondido.org>
Subject: Palomar Height Project

Rick,
Thank you for your email regarding the proposed Palomar Heights project. It is my understanding that the developer's traffic consultant will be evaluating bicycle and pedestrian connectivity to the site and making recommendations for any needed improvements. We certainly see this as an opportunity to enhance walkability.
Thank you for reaching out.

Julie Procopio, P.E.
Engineering Services Director/City Engineer
City of Escondido
(760) 839-4001



From: Rick Paul <rickpaul01@yahoo.com>
Sent: Thursday, January 24, 2019 3:32 PM
To: Julie Procopio <jprocopio@escondido.org>
Subject: Sidewalks

Hi Julie,
There are some locations in the city where sidewalks just abruptly end.
There is at least one of these near the old hospital.
I would like to ask that this be addressed during the review/approval of the new housing development on that site.
Thanks
Rick Paul
760-505-9840

Adam Finestone

From: Laura Hunter <earthlover@sbcglobal.net>
Sent: Thursday, May 9, 2019 2:08 PM
To: Bill Martin
Cc: Kristin Blackson; Adam Finestone
Subject: Re: Max units at Palomar Heights

Ack! ha ha, so sorry. Looking again at my message, I obviously put the comma in the wrong spot. I meant 1,380. Sorry to give you a heart attack. ☹️

i've got it right now.

Laura

Sent from my iPhone

On May 9, 2019, at 12:56 PM, Bill Martin <bmartin@escondido.org> wrote:

Hi Laura-

Can you tell me where you're seeing that number? It's not part of our NOP.

The maximum allowable number of units for the site would be approximately 1,350.

Thanks!

Bill Martin, AICP
Director of Community Development
City of Escondido
(760) 839-4557
bmartin@escondido.org
<image001.png>

From: Laura Hunter <earthlover@sbcglobal.net>
Sent: Thursday, May 09, 2019 12:07 PM
To: Kristin Blackson <kblackson@escondido.org>
Cc: Bill Martin <bmartin@escondido.org>
Subject: Max units at Palomar Heights

Hi Kristin,

I hope you are well. I'm working on understanding the Palomar Heights proposal. Am I reading it correcting that the maximum units that are currently allowable for that site would be 13,800? I understand that Integral is only proposing 510, but want to be accurate on the maximum allowed. Thanks for any info you can offer.

Thanks

Laura Hunter

NCG Sierra Club Conservation Committee

Short comments on strategies learned from the Chula Vista Bayfront Master Plan development and potential application to Palomar Heights

The successful effort to entitle and implement the Chula Vista Bayfront Master Plan (CVBMP) has many commonalities for efforts to increase the density at the Palomar Heights (PH) development in Escondido.

For example, we had a massive and expensive blight to deal with. We had a mix of public and private interests. We had very differing views on what should be done by the gov, community, enviros, and the developers. We had frustration on the part of the city in how long they had spent trying to develop their bayfront.

In the case of the CVBMP, our campaign resulted in a 550 acre development plan, 1600 hotel rooms in high rises, and 1500 DU in high rises in the coastal zone being approved with a **unanimous Coastal Commission vote, a positive staff recommendation, and not a single person in opposition at the hearing.**

I was the lead negotiator for the seven environmental organizations and I think aspects of this model can be used to get the density we need at Palomar Heights (PH).

Authority

I have heard it said that the city doesn't have much it can do because it doesn't own the land. I don't agree with this. The city just needs to be clear about its expectation and the **discretionary** approval authority vested in them is the key. I urge the city to be clear early with the Palomar Hospital Board and maybe the option holder and offer to negotiate either a new agreement or amend the current, in effect, MOA.

Need for assurances

Everyone wanted 'assurances' about what would happen so we developed legally binding vehicles to address this.

We had Stipulated Settlement Agreements among public groups and government and public groups and the developer. These were:

- Bayfront Settlement Agreement- between 7 enviro groups, City of CV, Port of SD, and CV Redevelopment (when it existed) for conditions on the public land development— Attached.
- Seven Enviro groups had a settlement agreement with Pacifica for the private development.

RECEIVED
JUN 04 2019
PLANNING DIVISION

- PLAs for construction and operations were signed between Pacifica and Unite HERE and building trades.
- MOA between Port, City, and Crossroads a community group.
- A JPA was created between the Port, City, and RDA for oversight and cost and revenue sharing

Dealing with an expensive blight

We had some similarities with the PH situation. There was a big, expensive blight that needed to be removed (19th C looking Industrial Power Plant), The South Bay Power Plant was a 'must-run' facility when we started, meaning we could not get rid of it. No one wanted to develop on the Bayfront with that blight.

As a result of the agreements, we all worked together, using our resources, political relationships, and focus to get the RMR removed, permits granted for demo, and the plant down and removed. The need to remove the old hospital seems like this. It is possible there could be 'brownfield' redevelopment money available at the state that we should investigate for the revitalization of downtown, creation of needed low and mid-range housing, housing in transit corridors, etc... This is an important and timely issue/story we have to tell and some powerful state electeds who we should engage on our behalf.

Issue	CVBMP	Palomar Heights Potential
The Vehicle:	Settlement Agreements JPA	The Esco/Palomar MOU? Or an engagement in a development or other binding agreement JPA?
Non-governmental partners:	Environmental, community groups, labor unions, downtown business group	
Governments and quasi govt	Port of San Diego, City of Chula Vista	Escondido, Palomar Hospital
Developer	Pacifica and Gaylord (until they left, but then they came back)	Integral or some developer who is willing to build high-rise, high density
Discretionary approval requirements	Coastal Commission approval	Esco Council approval
Land ownership	A mix of Public and private land.	Hospital Board ?

	We developed and secured a 'land swap' where we wanted to trade public and private parcels.	
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We developed a strong, effective **bi-partisan, multi-stakeholder** movement to make this project happen. We can do it here as well.

If you want to verify any of this, please contact Gary Halbert, City Manager of Chula Vista or Randa Coniglio, Port President. You could also talk to Steve Padilla who is a Coastal Commissioner and on the CV City Council. Also, Tom Lemmon is also knowledgeable about it. I can be called any time next week or later.

Adam Finestone

From: Adam Finestone
Sent: Monday, July 22, 2019 3:51 PM
To: 'Leon Ramsey, Jr.'
Cc: Mitchell Tsai; Kristin Blackson
Subject: RE: [EXT] Fwd: Palomar Heights Project [SCH No: 2019059013]

Good afternoon Mr. Ramsey,

Below is a link to the Palomar Heights project webpage. Updated information will be provided on this page as it becomes available.

<https://www.escondido.org/palomarheights.aspx>

At this time, the project is still under review. An EIR will be prepared and circulated for public review prior to the project being brought forward for consideration by the City Council.

I will add your name to our notification list for mailings related to the project. You should expect to see something when the EIR has been released for public review, prior to the Planning Commission's public hearing on the project, and again before the City Council public hearing.

Please let me know if you have any questions. Thank you.

Adam Finestone, AICP
Principal Planner
City of Escondido

From: Leon Ramsey, Jr. <leon@mitchtsailaw.com>
Sent: Monday, July 22, 2019 3:29 PM
To: Adam Finestone <afinestone@escondido.org>
Cc: Mitchell Tsai <mitch@mitchtsailaw.com>
Subject: [EXT] Fwd: Palomar Heights Project [SCH No: 2019059013]

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Good afternoon, Mr. Finestone:

Please see the below email regarding the above-referenced project. Our office would like to know more information. Could you please advise?

Thank you,

Leon Ramsey Jr.
Paralegal / Office Manager
Mitchell M. Tsai, Attorney At Law
155 South El Molino Avenue
Suite 104

Pasadena, CA 91101
Office: (626) 381-9248
Phone: (626) 389-8320
Fax: (626) 389-5414
Email: leon@mitchtsailaw.com
Website: <http://www.mitchtsailaw.com>

*** Our Office Has Recently Moved. Please Note New Mailing Address ****

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----- Forwarded message -----

From: **Leon Ramsey, Jr.** <leon@mitchtsailaw.com>
Date: Thu, Jul 18, 2019 at 3:24 PM
Subject: Palomar Heights Project [SCH No: 2019059013]
To: <kblackson@escondido.org>

Good Afternoon Ms. Blackson,

Our office is interested in the above-referenced project and would like to know if you could provide us with any updates? Also, can you confirm whether any appeals have been filed in relation to this project to City Council? Lastly, is there a mailing list I may be included on for future updates? Your attention to this matter is greatly appreciated.

Sincerely,

Leon Ramsey Jr.

Paralegal / Office Manager
Mitchell M. Tsai, Attorney At Law
155 South El Molino Avenue
Suite 104
Pasadena, CA 91101
Office: (626) 381-9248
Phone: (626) 389-8320
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recipient, or a person responsible for delivering it to the intended recipient, you are hereby notified that any disclosure, copying, distribution or use of any of the information contained in or attached to this message is STRICTLY PROHIBITED and may violate applicable laws including the Electronic Communications Privacy Act. If you have received this transmission in error, please immediately notify us by reply e-mail at mitch@mitchsailaw.com or by telephone at (626) 381-9248 and destroy the original transmission and its attachments without reading them or saving them to disk. Thank you.

Adam Finestone

From: Ken Erickson <kenericksonarchitect@gmail.com>
Sent: Monday, July 29, 2019 12:01 PM
To: Adam Finestone
Subject: [EXT] Re: Palomar Heights July Exhibits

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I forgot to add that the applicant needs to provide elevations from the street. These are absolutely critical for all those reviewing the project to understand the visual impact of this project.

Thanks,

Ken Erickson, Architect
122 1/2 S. Kalmia St
Escondido, CA 92025
760-518-8403

On Jul 29, 2019, at 11:52 AM, Ken Erickson <kenericksonarchitect@gmail.com> wrote:

Adam,

From my review of the Palomar Heights July '19 submittals, I'm forwarding the following observations and comments.

Overall, many of the comments in my June 3rd letter still apply.

1) As with the first submittal, the site and grading design disregards the existing site topography and surrounding context resulting in significant grade change along street edges and public sidewalks. This has the negative effect of isolating the project physically and visually from the surrounding neighborhoods and does not provide the pedestrian environment which is a central goal of the Downtown Specific Plan and the downtown experience.

2) The "Villas" and "Rowhomes", just as with the first submittal, are a suburban product. And, being vehicular oriented, the surface parking, drive aisles and driveways result in these homes (the "Villas" in particular) being surrounded by significant areas of asphalt.

3) Building 1: In total is approximately 315' long. Though the length is mitigated somewhat by the building plan being angled, from most street perspectives, it will still appear to be 300' plus in length—five stories tall. Looking closely at the floor plans, the lower floor offsets, from unit to unit, range from 0' to 6" to 1'. The second level has recessed balconies, but the third and fourth floors, similar to the first floor, have little offset. This will appear as a very long flat five-story building. The elevations show a fifth level, which, I presume is the mezzanine? If so, they should to provide a mezzanine building plan and sections to clarify.

4) Building 18: Approximately 175' in length, the comments from Building 1 apply. The minimal offsets in the design offer little architectural interest, character.

5) Building 23: Including the portion of the commercial piece that is closest to Valley Boulevard, the approximate building length along Valley Boulevard will be over 350' +/- . Similar to Buildings 1 & 18, the offsets from unit to unit appear to be 0", 6" and occasionally 18". The minimal offsets offer little relief from it's height and length and, with the 2'-10' high retaining walls along the property line, this building, as designed, will be overwhelming in mass and scale.

6) Building 23 Commercial:

– The building is sited some distance back from this important corner. The distances vary from approximately 5.8' -11.9' at the building's corners with a much greater distance to the sidewalk at the corner. What is planned for this space? With this distance and the approximately 2'-7' high retaining walls at the property lines, how can the commercial uses and pedestrians interact? This solution does not meet the DTSP's guideline of locating buildings where they engage pedestrians and the street edge.

– The architectural intent is unclear. The open steel structure with glass cube tower element will likely be seen as decoration. The floor plans provided do not show storefronts or entry points, which are critical to how this building relates to the public realm.

7) Building 24:

– Approximately 350' in length, at the ground level, there is only one offset in the building which results in a very long flat building plane.

– On the front elevation provided, shadows are shown suggesting offsets from the second to first floor, but the building plans do not appear to show these offsets. This needs to be clarified for accurate review.

– With the exception of the commercial unit and one residential unit, the first floor is parking. On the front elevation, for the length of the parking, openings for ventilation are shown. It seems likely that without mechanical ventilation, these openings will in fact become larger. In either case and with the lower floor below the sidewalk by 2'-4', there will be views into the parking area and, with minimal storefront and no unit entries activating the building, this does not meet the DTSP's goal of an pedestrian active downtown.

– The elevations and project summary show this building as being a four-story building. The building plans have first and second floor building plans. Are the third and fourth floors exactly the same as the second floor?

– The commercial end piece appears below the sidewalk by 2'-4', which, along with it's angled orientation does little to engage the pedestrian and downtown life.

– What will be the use of the leftover triangular piece of land to the west of the commercial area?

8) As with the first submittals, for Staff and the public to accurately review and assess the mass and scale, architecture, the relationship to the existing fabric and character of the Downtown, and the goals and visions of the DTSP, the following exhibits must be provided:

– Site sections: At a minimum, four accurate and detailed site sections should be provided.

Sections need to show building profiles with heights, retaining walls, slope banks and streets. As a minimum, two in the north-south direction, two in the east-west direction. The sections provided show the existing topography only. Partial sections where grade change is most severe including building profiles should be provided as well.

–The exterior elevations and perspectives provided do not include important context, such as drive aisles, retaining walls, etc. The flat park-like context shown does not depict the proposed grading solutions. Exhibits with accurate context must be provided for a truthful depiction of what is proposed.

– Overall building and offset dimensions need to be shown on the building plans.

– Ground level finish floor elevations, for Buildings 1, 18, 23 & 24, need to be noted.

9) Specific to the DTSP Visions and Goals

- The ground floors of Buildings 1,12-18 and 23 adjacent to E. Valley Parkway, Valley Boulevard and Grand Ave. are either above or below the street/sidewalk level. These elevation differences appear to range from between a few feet and 14' +/-.
- Most buildings adjacent to Grand Ave. and Fig Street are oriented with their building fronts away from adjacent streets.

These are in conflict with the goals of building entry points being visible, majority of building walls along the street being in close proximity to the street edge to provide street-level and human-scale, activate the street and sidewalks that prioritize the pedestrian experience.

10) Conclusions:

- This or any project built at this site, will be there, unchanged, for a generation.
- Every building matters, each one (good or bad) is part of the visual fabric that expresses Escondido's character and values. We should not accept, just for the sake of adding more housing, especially at this once-in-a-generation-site, to settle for compromised site planning, grading design and architecture.
- We live in an age of indistinguishable architecture that erodes the differences and distinctiveness of city's and neighborhoods. This site, our historic downtown and Escondido residents deserve a project designed for this specific site, in a unique neighborhood and city.
- The project as proposed, does not add to the character, scale and established walkable rhythm of downtown, in fact, to be direct, it's the antithesis of what was and envisioned by the Downtown Specific Plan.

I'm sure there is more, but given the days and time I had, these are my thoughts. Thanks for your consideration of the public's input.

Ken Erickson, Architect
122 1/2 S. Kalmia St
Escondido, CA 92025
760-518-8403

Adam Finestone

From: Greg Danskin <danskin.greg@gmail.com>
Sent: Monday, July 29, 2019 11:50 AM
To: Adam Finestone
Subject: [EXT] Palomar Heights Project - Impressions of Current Proposal

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Hello Adam,

I understand the Planning Department will be reviewing the current submitted drawings for this project today, and am submitting my impressions of those exhibits as an interested member of the public.

As you know, I am an architect with my business located in Escondido since 1994, and have sat on various boards and commissions, such as the Design Review Board, the Downtown Business Association Design Advisory Committee, the Historic Preservation Commission, and the Downtown Specific Plan Committee.

This particular site has a rich history, and also a unique position in the city due to its location and topography, making it an important component of Escondido. It is with that perspective in mind that I offer my views on what is being presented.

THE SUBMITTED EXHIBITS

The drawings and information submitted lack completeness in both scope and content to adequately review the proposal.

Preliminary Grading Plans

Only 2 Site Sections have been submitted (and those only in the north-south direction), describing the existing grades and not the proposed. There is no way to understand the impact of the proposed grading, not only on the Project Site, but also (and as importantly) on the neighboring properties and streetscape. Additionally, the proposed street and driveway sections, while describing possible civil engineering solutions, in no way describe the impact on the adjacent properties, be they either the development site or neighboring properties.

Tentative Map

In general, this contains much information that is necessary but premature for the level of review at present.

Architectural Plans

The exhibits show isolated building solutions without placing them in context. There is no way to understand the impact on the Project Site, on neighboring properties as well as on the adjacent streetscape.

With this in mind, the following comments are based on what I was able to glean from the documents provided:

COMMENTS ON THE DESIGN

Site Organization

The Conceptual Master Plan reveals a solution that is more suburban than urban. A tremendous amount of the surface is then required to be devoted to vehicular traffic and parking, the net result being an environment that is not in keeping with the vision set forth in the DTSP.

The apex of the site, being devoted to this suburban product, misses the opportunity the topography provides in

Streetscape

The project proposes significant retaining walls adjacent to the sidewalk

Internal Site Design

The 'Villas' and 'Rowhomes'

Streetscape - Valley Blvd

Buildings over 300 feet long and 5/6 stories tall along both edges create an environment along the street that is not a pedestrian-friendly and walkable experience. No relief of building massing, no retail cadence, and street-level views of parking, parking garage, and drive lanes, presents an uninviting space, and not in keeping with the vision of the DTSP. This will not be a pleasant 'Boulevard'. In addition, the acoustics of this street will not be pleasant.

Grand Avenue

The corner commercial block appears to have a street entry presence, but no indication of how pedestrians will interact with this space is presented. Vehicular access and delivery with appears to be via the basement parking garage, which may pose problems of access for non-pedestrian and delivery vehicles.

The westerly ingress/egress on Grand, while being a primary entrance/exit, is designed more like a secondary access point. Traffic flow, stacking, public transit provisions, and signaling must be understood, which as presented appears awkward and forced. At commute times this may become overly congested.

The Grand Avenue street edge and transition between Building 18 and Building 17 must be studied as it will be in reality. They transition between the two has potential to be awkward, creating an uninviting space for the rowhomes and a disorganized street scene dropping abruptly from an urban six-story apartment building to a four-story suburban rowhome within roughly 20 feet.

Because the rowhomes require an alleyway for access, the grades along Grand will in turn required retaining walls as much as 10 feet tall, creating such a 'well' as on Building 15 so as to be a particularly uninviting space.

Valley Parkway

The comments on Valley Blvd apply to a large extent here, in that the bustling length, no massing relief, and retaining wall heights required, mask this portion of the street edge an uninviting space for the pedestrian.

The 'Villas'

3/5's of the Villas will have no useable space at grade, a result of needing to devote most of the site to vehicular paving.

SUMMARY

The exhibits presented have the appearance that this proposal is seen by the applicant to be a primarily civil engineering problem. However, while the civil engineering issues must of course be solved, the proposal lacks any description/depiction of the environment created by the proposal. I would strongly recommend full rendered views of the streetscapes, and a physical mass model, in order to understand the environment created on the edges and in the interior.

At over 4,000 feet of edge along streets and neighboring properties, this project will have large and varied impacts along those edges. Overall site sections and perspective views at street level must be presented in order to understand the project impacts on the character of the adjacent streets and the environment it will create, whether the result is a pleasing, walkable, pedestrian-oriented solution in keeping with the vision set forth in the Downtown Specific Plan.

The current proposal, in my view, falls so far short of the vision of the DTSP, and the potential of this important site, as to be unacceptable. It does not appear to me that the problems created by this solution can be in any way resolved within the present design approach. The mass, scale, and impact that this project will have on Escondido requires a well-thought out solution that enhances not only the immediate site, but by its nature, influence in a positive way the surrounding area, in keeping with that vision. It will infect influence the character of the surrounding are for many decades.

Sincerely,

Greg Danskin
Architect

--

GREG DANSKIN ARCHITECT
760.532.2361 (M)
WWW.DANSKINARCHITECTURE.COM

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10-2-19

Adam Finestone

City of Escondido Planning Department

Palomar Heights Comments

(These comments follow my comments of 7-31-19 in response to the previous submittal.)

The former Palomar Hospital site is a critical component to the fabric of Escondido, and has the opportunity to connect that site to the downtown retail core as well as create a pedestrian-friendly connection to the east. The current proposal is lacking in a few critical areas, outlined below.

1. DENSITY

The proposal is offering 37 du/ac. It appears that the main reason for this is the building type that is being proposed, which is a suburban vehicle-oriented product. On what is arguably one of the premier urban sites in Escondido, the solution should be overtly urban in nature. Escondido has a large inventory of suburban housing projects, a type that does not allow for the urban experience called for on this site.

2. OPEN SPACE

The hard surface parking and driveway needs of this configuration significantly limit the useable outdoor space for residents, giving just 2,520 sf for 'recreation' (primarily devoted to a pool, which may tend to be underutilized by the majority of residents). The grading required to accommodate this product type requires many retaining walls, many unusable outdoor spaces, and a significant amount hardscape to navigate the topography. This solution will result in a living experience defined by paving, devoting almost all of the outdoor space to the automobile. An urban solution would accommodate those grade changes within the structure, seek ways to minimize the impact of the automobile, and encourage an urban walkable community, with a variety of uses represented (The DTSP discusses this as its vision statement and throughout).

3. PEDESTRIAN EXPERIENCE

The street edge is by necessity of the topography and the building type proposed populated by retaining walls, resulting in a non-pedestrian-friendly experience. The opportunity for graffiti is obvious and promises to be a constant maintenance problem. The current solution does not create an environment conducive to a walkable community.

SUMMARY

The result of choosing to employ a suburban building type is to create a project that appears more like a suburban HOA-governed insular project, as opposed to an urban public/private pedestrian-oriented focal point at the east end of the Downtown Retail Core. This site has the unique once-in-a-generation opportunity to set the tone for future development in Escondido, and as such should be approached with the goals outlined in the DTSP, both the numerical (density, height, multi-use) goals as well as the equally important goals of a pedestrian-friendly, aesthetically appropriate solution fitting Escondido and adding to the fabric while looking to the future.

Respectfully Submitted,

Greg Danskin, Architect

7-31-19

Adam Finestone

City of Escondido Planning Department

Palomar Heights – Review 7-29-19 (*italics added where the original required completion*)

Hello Adam,

I understand the Planning Department will be reviewing the current submitted drawings for this project today, and am submitting my impressions of those exhibits as an interested member of the public.

As you know, I am an architect with my business located in Escondido since 1994, and have sat on various boards and commissions, such as the Design Review Board, the Downtown Business Association Design Advisory Committee, the Historic Preservation Commission, and the Downtown Specific Plan Committee.

This particular site has a rich history, and also a unique position in the city due to its location and topography, making it an important component of Escondido. It is with that perspective in mind that I offer my views on what is being presented.

THE SUBMITTED EXHIBITS

The drawings and information submitted lack completeness in both scope and content to adequately review the proposal.

Preliminary Grading Plans

Only 2 Site Sections have been submitted (and those only in the north-south direction), describing the existing grades and not the proposed. There is no way to understand the impact of the proposed grading, not only on the Project Site, but also (and as importantly) on the neighboring properties and streetscape. Additionally, the proposed street and driveway sections, while describing possible civil engineering solutions, in no way describe the impact on the adjacent properties, be they either the development site or neighboring properties.

Tentative Map

In general, this contains much information that is necessary but premature for the level of review at present.

Architectural Plans

The exhibits show isolated building solutions without placing them in context. There is no way to understand the impact on the Project Site, on neighboring properties as well as on the adjacent streetscape.

With this in mind, the following comments are based on what I was able to glean from the documents provided:

COMMENTS ON THE DESIGN

Site Organization

The Conceptual Master Plan reveals a solution that is more suburban than urban. A tremendous amount of the surface is then required to be devoted to vehicular traffic and parking, the net result being an environment that is not in keeping with the vision set forth in the DTSP.

The apex of the site, being devoted to this suburban product, misses the opportunity the topography provides in *its natural topography*.

Streetscape

The project proposes significant retaining walls adjacent to the sidewalk, *creating an uninviting and decidedly pedestrian unfriendly experience, in effect becoming fortress-like, and harsh.*

Internal Site Design

The 'Villas' and "Rowhomes", *as a product type, are forced on this site, requiring such retaining so as to render much of the open space unusable.*

Streetscape - Valley Blvd

Buildings over 300 feet long and 5/6 stories tall along both edges create an environment along the street that is not a pedestrian-friendly and walkable experience. No relief of building massing, no retail cadence, and street-level views of parking, parking garage, and drive lanes, presents an uninviting space, and not in keeping with the vision of the DTSP. This will not be a pleasant 'Boulevard'. In addition, the acoustics of this street will not be pleasant.

Grand Avenue

The corner commercial block appears to have a street entry presence, but no indication of how pedestrians will interact with this space is presented. Vehicular access and delivery appears to be via the basement parking garage, which may pose problems of access for non-pedestrian and delivery vehicles.

The westerly ingress/egress on Grand, while being a primary entrance/exit, is designed more like a secondary access point. Traffic flow, stacking, public transit provisions, and signaling must be understood, which at presented appears awkward and forced. At commute times this may become overly congested.

The Grand Avenue street edge and transition between Building 18 and Building 17 must be studied as it will be in reality. The transition between the two has potential to be awkward, creating an uninviting space for the rowhomes and a disorganized street scene dropping abruptly from an urban six-story apartment building to a four-story suburban rowhome within roughly 20 feet.

Because the rowhomes require an alleyway for access, the grades along Grand will in turn require retaining walls as much as 10 feet tall, creating such a 'well' as on Building 15 so as to be a particularly uninviting space.

Valley Parkway

The comments on Valley Blvd apply to a large extent here, in that the building length, no massing relief, and retaining wall heights required make this portion of the street edge an uninviting space for the pedestrian.

The 'Villas'

3/5's of the Villas will have no useable space at grade, a result of needing to devote most of the site to vehicular paving.

SUMMARY

The exhibits presented have the appearance that this proposal is seen by the applicant to be a primarily civil engineering problem. However, while the civil engineering issues must of course be solved, the proposal lacks any description/depiction of the environment created by the proposal. I would strongly recommend full rendered views of the streetscapes at pedestrian level, and a physical mass model, in order to understand the environment created on the edges and in the interior.

At over 4,000 feet of edge along streets and neighboring properties, this project will have large and varied impacts along those edges. Overall site sections and perspective views at street level must be presented in order to understand the project impacts on the character of the adjacent streets and the environment it will create, whether the result is a pleasing, walkable, pedestrian-oriented solution in keeping with the vision set forth in the Downtown Specific Plan.

The current proposal, in my view, falls so far short of the vision of the DTSP, and the potential of this important site, as to be unacceptable. It does not appear to me that the problems created by this solution can be in any way resolved within the present design approach. The mass, scale, and impact that this project will have on Escondido requires a well-thought out solution that enhances not only the immediate site, but by its nature, influence in a positive way the surrounding area in keeping with that vision. It will in fact influence the character of the surrounding area for many decades.

Sincerely,

Greg Danskin
Architect

Adam Finestone
Principal Planner
City of Escondido Planning Division
201 N. Broadway
Escondido, CA 92025

October 2, 2019

Re: Palomar Heights Project

I am concerned about several issues with the Palomar Heights project as submitted:

1. The Palomar Heights project conflicts with the Downtown Specific Plan and Zoning Code in that it is almost entirely residential, a neighborhood about to be inserted into the middle of a commercial zone. The Downtown Specific Plan is a carefully crafted document that should set the standard, without recurrent compromise.
2. The commercial potential for downtown should be expanded rather than restricted, extending the downtown as a larger and more vibrant area to attract potential customers for the entire downtown area. This area could be a feature for downtown, creating an exciting destination that would extend eastward from the proposed arch at Centre City Parkway up Grand to a dynamic development with additional dining and entertainment options on the hill. Residential units could be built on upper floors for a pleasant mix. If the target of more than 5,000 residential units is ever reached in the Downtown Specific Plan, additional shops, restaurants, pharmacies, and grocery stores will be needed to service the additional residents who will otherwise have to leave the area, most likely in their cars, to avoid overcrowded restaurants already seen during Cruisin' Grand and other events. Additional commercial will also bring potential customers to existing downtown businesses and provide interest for pedestrians walking alongside the building.
3. The Palomar Heights project lacks adequate open space for landscaping materials to enjoy from within the dwelling units and for children to play. No playgrounds or play areas are indicated in the plans, only a relatively small "rec area" and very small pockets adjacent to the street.
4. The building design is not compatible with the historic and classically designed buildings downtown. Instead, as shown, they are reminiscent of the 90s and not something that will continue to be appreciated over the decades to come.
5. The Palomar Heights project will exacerbate the parking challenges in the downtown area because there is inadequate parking for those living there in addition to the commercial space customers and employees.
6. Adding thousands of residential units to this area will create a demand on water, electricity, and sewer, as well as other services. The existing population is already asked to/required to reduce electrical and water use.

Sincerely,



Carol Rea
Escondido Resident

Palomar Heights

Palomar Health Downtown Campus

October 2, 2019

Mr. Adam Finestone
Principal Planner
City of Escondido

Dear Adam,

Please forward these observations and comments to the Planning Commissioners.

The approved Downtown Specific Plan (DTSP) was developed over an eight-year period, adopted on August 7, 2013. During this time, residents, downtown business owners, Downtown Business Association, Chamber of Commerce, City staff, Planning Commission and City Council members gave input, discussed and debated with the goal of updating the vision for Downtown.

This effort recognized and respected the historic character of downtown but also considered the future, envisioning an attractive, pedestrian friendly, economically vital city center providing social, cultural and residential focus.

The purpose of DTSP is to direct Downtown development, based on its principles and guidelines to the desired outcome. All proposed projects in the Downtown are reviewed and assessed based on this thoughtful document to ensure that in the future the Downtown will have fulfilled the vision of those that contributed.

Palomar Heights exhibits reviewed are dated September 10 and 11, 2019 and the following comments and observations are based on the approved DTSP.

General Observations:

The proposed suburban project, necessarily employs site and grading designs that ignore existing site topography and the surrounding context resulting in significant grade change along street edges and public sidewalks. This approach, along with the fact that Buildings 1, 18, 23 & 24 propose parking garages on the ground floor level, isolates the project both physically and visually from the surrounding neighborhoods and does not provide the pedestrian environment which is a central goal of the DTSP.

See DTSP: Page II-12, III-1 (2nd paragraph), Page III-6 2 a)

Building 1 Apartments:

- Building One is 325' +/- in length and five stories in height. Along East Valley Parkway, there are retaining walls (2'-14' in height) and slope banks that result in the ground-floor being an average of 11' above the sidewalk
- Distances from building to street and sidewalk range between 20' and 35' +/- and at one point 10'
- Apartment units are not located on the street level or ground floor, in fact, with the exception of stairs to some second-floor units, the ground floor is a parking garage. Some second-floor units facing East Valley Parkway do have doors to their stairs but will appear secondary rather than the unit's entry door.
- Considering the length, elevation above street level and distances from building to the sidewalk and units located above the ground level, the proposed design does not provide the pedestrian environment which is a central goal of the Downtown Specific Plan.
See DTSP: Pages I-2 9., III-1 (2nd paragraph), III-7 b

The "Villas" and "Rowhomes"

- The Villas and Rowhomes are automobile-orientated suburban solutions. With surface parking, drive aisles and driveways, these buildings (the "Villas" in particular) will be surrounded by large areas of asphalt.
- The majority of Villas have unit entries located on drive aisles where cars access garages. The landscaping in this area amounts to small pockets every 20'. This space, with 3-story buildings on either side, is essentially an alley, which does not provide pedestrian oriented entries.
- Along Fig Street, per site section C-C, with terraced retaining walls of 15' in height and slope banks, the building ground-floor is approx. 20' above the adjacent sidewalk. Adjacent to Grand Avenue, some buildings are approx. 7' away from retaining walls and as much as 8' below street level.
- Based on these observations the proposed design does not provide the physical connection to the surrounding neighborhood nor create the pedestrian environment which is a central of the Downtown Specific Plan
See DTSP: Pages I-2 9., III-1 (2nd paragraph), III-6 2) Guidelines a) & III-7 b

Building 18 Apartments

- Similar to Building 1, apartment units are not located on the ground floor, in fact, with the exception of stairs to some second-floor units, the ground floor is a parking garage. Some second-floor units facing Grand Ave. do have doors to stairs but will appear secondary rather than the unit's primary entrance, doing little to activate the street edge and public realm.
- Based on these observations the proposed design does not provide the physical connection to the surrounding neighborhood nor create the pedestrian environment which is a central of the Downtown Specific Plan
DTSP Page III -7 2) Guidelines: d

Building 23 Apartments

- Building 23 is 430' +/- in length, five stories in height and elevated between 5' -10' above Valley Boulevard.
 - Similar to Buildings 1 and 18, apartment units are not located on the street level or ground floor and, with the exception of stairs to some second-floor units, the ground floor is the parking garage. Some second-floor units that face Valley Boulevard have doors to their stairs which will have the appearance as a secondary rather than the primary entry point.
- Based on these observations the proposed design does not provide the physical connection to the surrounding neighborhood nor create the pedestrian environment which is a central of the Downtown Specific Plan
DTSP Page III -7 2) Guidelines: d
- The intersection of Grand Ave. & Valley Blvd. is one of the most important in Downtown. What is built here will be seen on Grand Avenue from blocks away and will contribute to the larger visual experience.
- The proposed tower would serve the project and Downtown better if located so as to have a strong connection to the ground plane rather than a roof top. And a more solid, slender design, would read as timeless, have a strong sense of permanence and better seen from further away.

Building 24: Senior Apartments

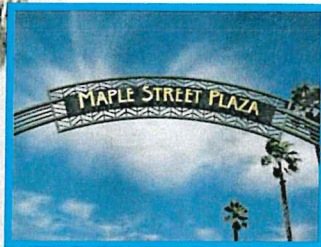
- Similar to Buildings 1, 18 and 23, apartment units are not located on the street level or ground floor. With the exception of stairs to some second-floor units and the small commercial space, once again, the ground floor is a parking garage. Some second-floor units facing Valley Boulevard have doors to their stairs, but with the proximity of the elevator, it seems likely that the doors and stairs will be little used. The small lobby appears to have solid walls with only a door on street side.
 - On the front elevation, several openings for garage ventilation are shown. With the garage floor below the sidewalk level, there will be views into the parking area, which is strongly discouraged in the DTSP
- Based on these observations the proposed design does not provide the physical connection to the surrounding neighborhood nor create the pedestrian environment which is a central of the Downtown Specific Plan
DTSP Page III -7 2) Guidelines: d

Conclusions:

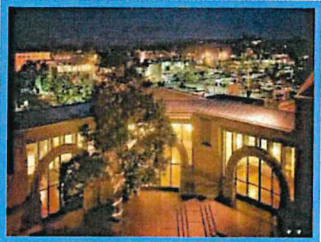
- This site is a once - a- generation opportunity, any project built here, will be there for a generation.
- The project as proposed, is a forced fit, it's a suburban solution that can be found on any flat site, anywhere. It does not add to the character, scale and established walkable rhythm of downtown, in fact, it's the antithesis of what was and envisioned by the Downtown Specific Plan.
- Every building matters, each one (good or bad) is part of the visual fabric that expresses Escondido's character and values. We should not accept, just for the sake of adding more housing, compromised site planning, grading design and architecture.
- We live in an age of indistinguishable architecture that erodes the differences and distinctiveness of cities and neighborhoods. This site, our historic downtown and Escondido residents deserve a project designed specifically for this site, in a unique neighborhood and city.
- We have a thoughtful Downtown Specific Plan that, by employing time tested planning principles, honors the scale and rhythm of the historic character of downtown, yet embraces this current place in time and the future. Again, all proposed projects in the Downtown must be reviewed and assessed based on this document to ensure that in the future Downtown will have fulfilled the vision of the DTSP. If plan is not the measure of whether a project should be approved or denied, what is?

Respectfully,
Ken Erickson, Architect





ESCONDIDO *Downtown Specific Plan*



*Adopted on August 7, 2013
Resolution 2013-85*



File No.: PHG 13-0018

Downtown Specific Plan

VISION STATEMENT & GOALS

B. THIS DOCUMENT'S PURPOSE

The Downtown Specific Plan document provides a comprehensive plan for land use, development regulations, development incentives, design guidelines, pedestrian and mobility improvements, and other related actions aimed at implementing the strategic goals for Downtown Escondido as set forth in the General Plan Goals and Policies. As downtown transitions to a more urban environment involving taller structures, and buildings constructed along the street edge, focused efforts are required to ensure that the unique character is maintained and strengthened. The Vision, Goals, Principles and Guidelines promote a balance of uses, sensitive design techniques, and enhanced pedestrian opportunities.

C. DOWNTOWN SPECIFIC PLAN STRATEGIC GOALS

1. An economically viable Downtown with an appropriate mix of retail, office, residential, entertainment and cultural uses.
2. A local and regional destination for specialty shopping, dining, nightlife, employment, culture, and the arts.
3. A vibrant and exciting environment with land uses that foster an "18-hour" atmosphere, in addition to areas that provide mixed use, office employment and high-density residential opportunities.
4. Development and signage that strengthen the character of Downtown and are architecturally compatible with the existing urban fabric.
5. Street-level and human-scale design elements in new and remodeled developments that improve pedestrian orientation.
6. Preserved historically significant sites and structures that enhance the character of Downtown.
7. Pedestrian-oriented, ground-floor, specialty retail and restaurant uses on Grand Avenue that reinforce and expand its unique character.
8. Higher residential densities in key locations that support Downtown non-residential uses.
9. A pedestrian environment that provides connections, convenient access and opportunities for alternative modes of transportation.



Downtown Specific Plan

LAND USES

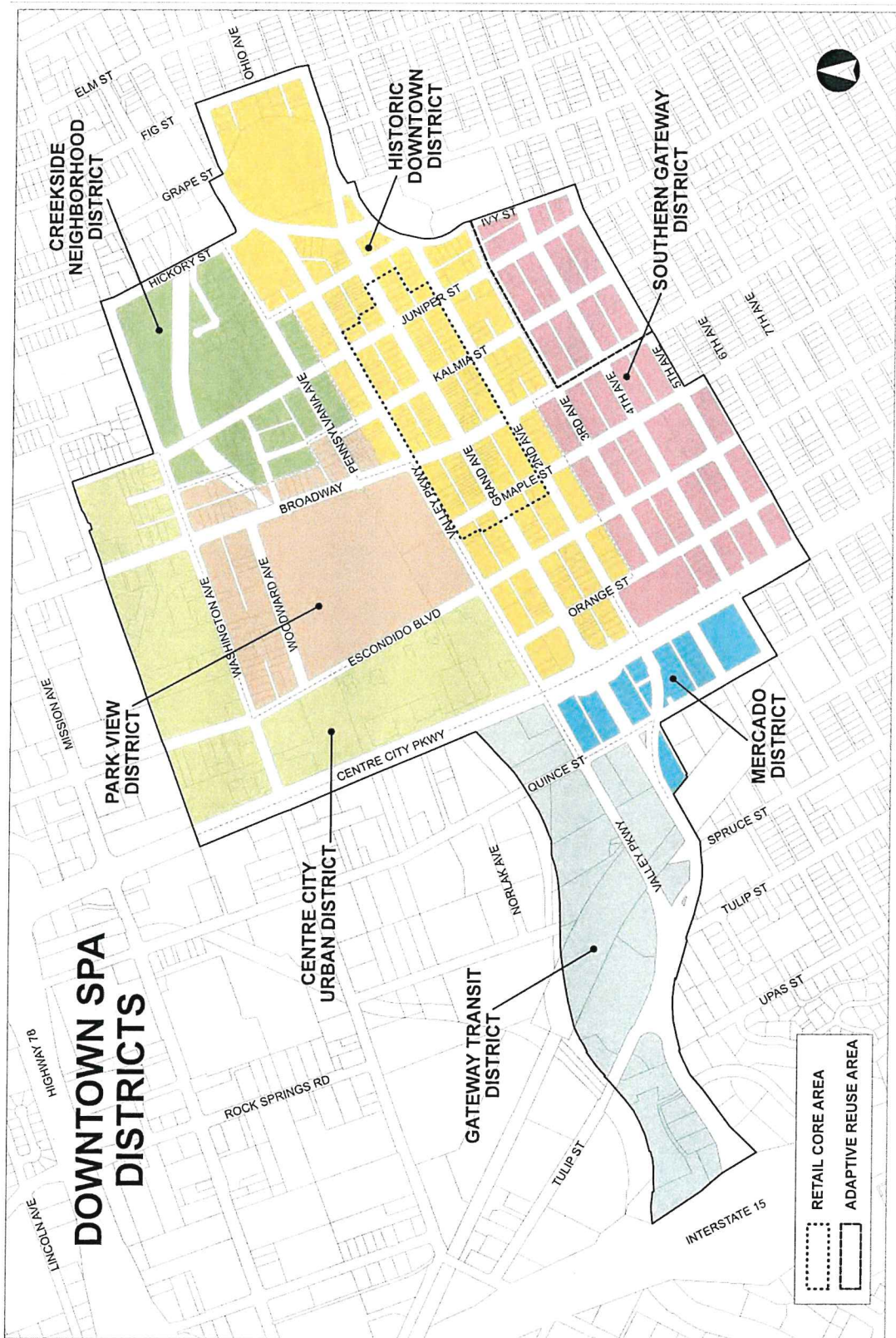


FIGURE II-1

Downtown Specific Plan

LAND USES

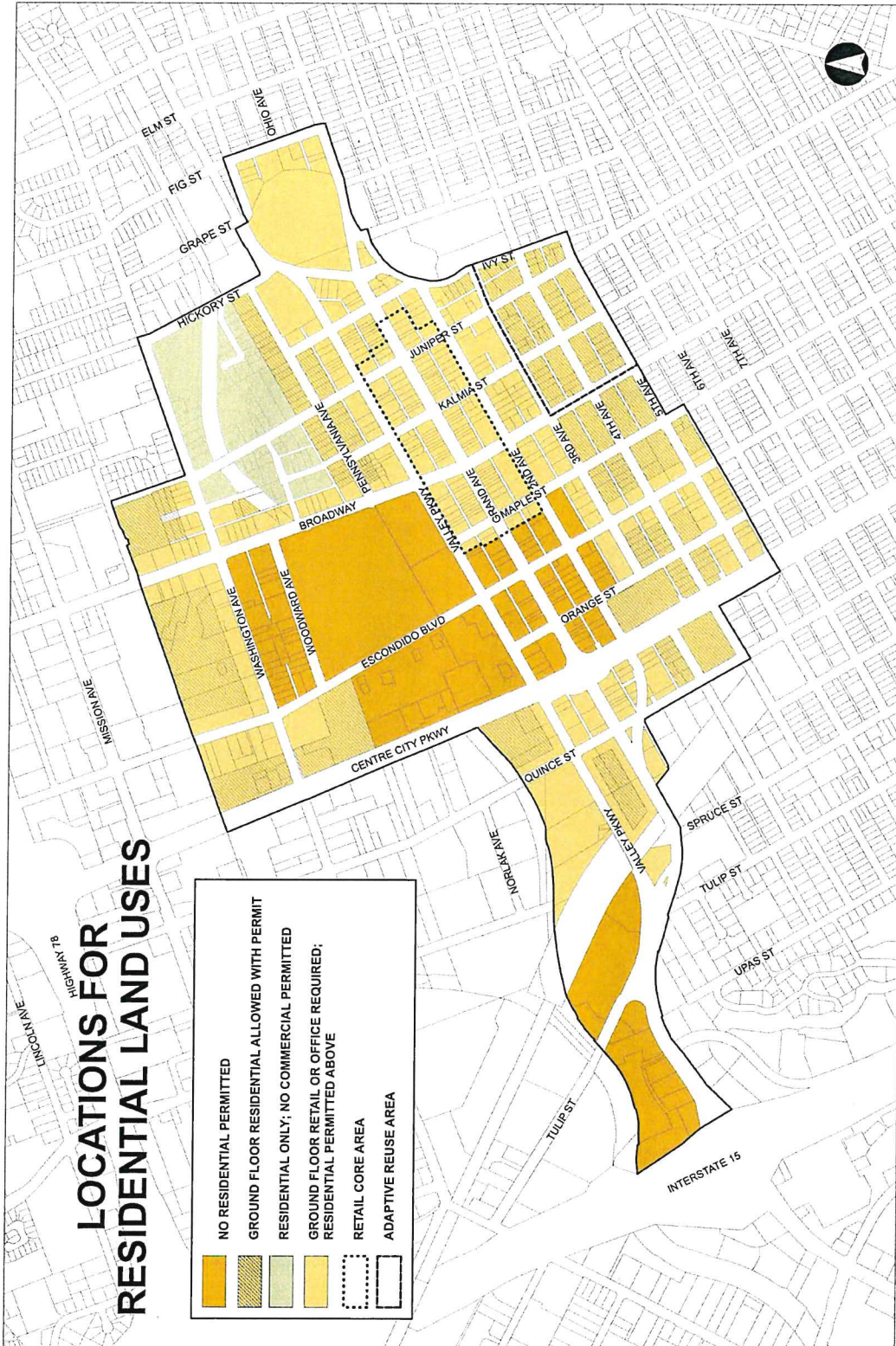


FIGURE II-4

Downtown Specific Plan

DESIGN POLICIES, STANDARDS & GUIDELINES

III. DESIGN POLICIES, STANDARDS, AND GUIDELINES

A. PURPOSE

There exist certain elements of good urban design in the creation of public and private spaces that make up the fabric of a downtown. This document seeks to identify those policies, standards and supportive guidelines, to explain them in a way that is clear, and to give direction on their use. Proposed projects should preserve, respect and promote the existing character, scale, and the patterns of downtown Escondido. In its transition to a more urban environment, efforts should be made to capitalize on the City's unique history, geography and climate.



Downtown's urban atmosphere is envisioned to address the increased intensity of pedestrian and vehicular activity. Emphasis is focused on facilitating an enjoyable 'walkable' experience. Streets accommodate wider sidewalks, transit vehicles making multiple stops, pedestrian crossings, buildings closer to the right of way, and other features that affect vehicular and pedestrian traffic.

Downtown design policies, standards and guidelines embrace strategies representing a shift in focus from 'how to develop vacant land' to 'how to reinvest in existing neighborhoods.' Escondido's General Plan accommodates and guides urban residential growth downtown in order to preserve densities in established single family areas. This strategy helps ensure housing options for all residents and capitalizes on the city's infrastructure investments.

The Downtown SPA also incorporate policies ensuring that transportation planners and engineers consistently design and operate the entire roadway with safety and accessibility of all users – bicyclists, transit vehicles and riders, automobiles, and pedestrians of all ages and abilities, as well as goods and services. These policies shift Escondido's orientation away from building streets primarily for automobiles and facilitate the broader vision of directing Downtown's and the City's circulation system toward a truly 'multimodal' transportation network.

Downtown Specific Plan

DESIGN POLICIES, STANDARDS & GUIDELINES

The goal of this chapter is to encourage appropriate urban design solutions, increase the level of quality projects and to provide the community with a future environment that is as rich as its past. There might be points of discussion on any project for which there is no one clear solution. Preserving the character of Downtown Escondido, along with the area's overall vision, should be the fundamental goal of the design process.

1. SMART GROWTH POLICIES, STANDARDS, AND GUIDELINES

a. "Sense of Place" Policy:

Promote a "sense of place" and enhance the community's historical context.

Project architects and planners should strive to understand the history and character that make Downtown a unique place and how their project design for a specific site would contribute to Escondido being "Somewhere vs. Anyplace."

1) Standards:

- a) The street level shall be enhanced as an inviting place for pedestrians by providing features that are visually interesting and human in scale including seating, public art, outdoor displays, historical plaques and landscaping.
- b) Historically significant facades and architectural features visible from the public right-of-way shall be preserved. Replacement elements on historic buildings shall replicate the original elements as closely as possible in terms of materials, profile, and detail which add to the building's character and the down-town overall. Replication should be based on historic evidence.
- c) Structures proposed for adaptive re-use shall retain the appearance of their original use, particularly if the structure is deemed historically significant. Landscaping, lighting, signage, parking, and other exterior structural additions/modifications, shall be designed to not impact surrounding residential uses.



2) Guidelines:

- a) Proposed projects should preserve, respect and promote the existing character, scale, architecture and the patterns of the historically significant downtown.

Downtown Specific Plan

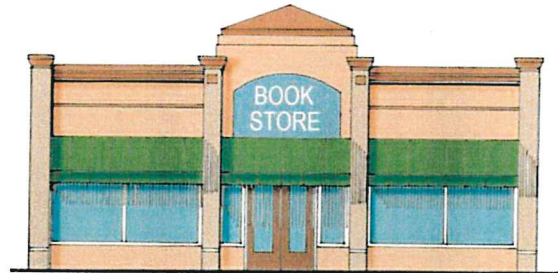
DESIGN POLICIES, STANDARDS & GUIDELINES

- b) Larger projects should be designed to emulate the existing rhythm and scale of the downtown to minimize expansive inactive storefronts.

b. Building Materials Policy:

Utilize appropriate urban-style building materials, textures, colors, signage, lighting, massing and balance.

Well-designed building architecture and signage shall respect and relate to its surroundings in scale, mass, color, use of texture, character, materials, and asymmetrical or symmetrical balance,



EMPHASIS THROUGH MASSING

1) Standards:

- a) Exterior building materials typically associated with urban environments that are durable and timeless (concrete, brick, stone, metal, glass, etc) shall be primarily used.

- b) Colors for building wall surfaces, trim areas, and awnings shall be coordinated and non-garish. Consultation with a color specialist to ensure a harmonious palette is encouraged.

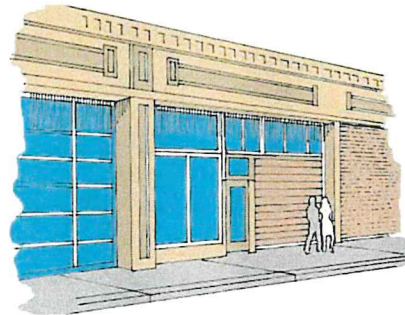
- c) The architectural design of detached buildings shall complement the main structure through the use of compatible details, materials and colors.

- d) Well-designed and appropriate exterior lighting shall be incorporated to provide security, visual comfort for pedestrians, and enhancement of façade details.

- e) Indirect lighting shall be incorporated where appropriate to minimize glare into pedestrians' eyes. Building lighting that blinks, changes, or is otherwise distracting shall be avoided.

- f) Buildings shall have architectural features and patterns that reflect and reinforce the scale; mass, proportion, rhythm, and attention to detail established by existing well-designed structures, as well as provide visual pedestrian-scale interest, reduce massive visual effects (such as avoiding large blank walls, step-back building facades for upper floors, etc.).

THE DIFFERENT FINISHES OF A MATERIAL CREATE TEXTURE



TEXTURES PROMOTE INTIMATE SCALE

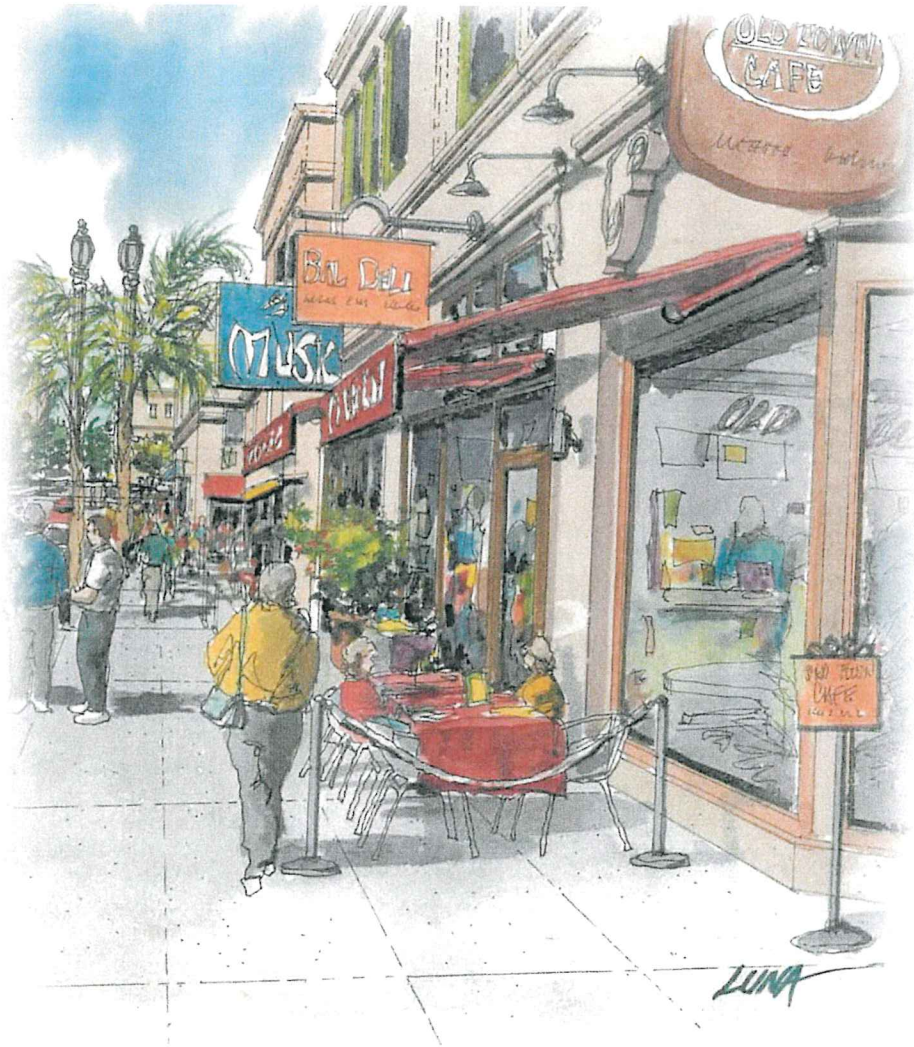
Downtown Specific Plan

DESIGN POLICIES, STANDARDS & GUIDELINES

c. **Building Orientation Policy:**

Orient buildings toward the street to establish a strong connection with the ground plane and immediate surroundings, and to appropriately reflect the building's purpose and use.

A continuous 'street edge' frames and defines the public space, transforming the street into an enjoyable outdoor public space. Buildings with transparent store fronts at the sidewalk engage the pedestrian's interest, attention and curiosity. Conversely, buildings set far back from the street erode the "street edge," disconnect the pedestrian from the building's use and activity, as well as prevent the pedestrian from enjoying attractive building details.



Downtown Specific Plan

DESIGN POLICIES, STANDARDS & GUIDELINES

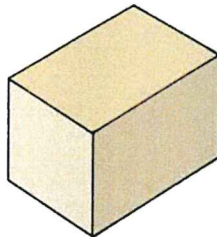
1) Standards:

- a) Building entry points shall be clearly visible. As required by the Specific Plan District, approximately 70% of the building wall along the street shall contact, or be in close proximity to, the street edge to provide an urban look and help activate the street by avoiding the use of columns with cantilevered over-hangs and/or porches along the street edge.

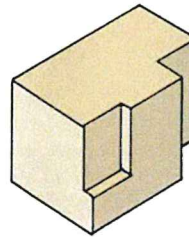


- b) Elements that vary façade planes and create a visual play of light and shadow shall be incorporated along the street edge. Long, uninterrupted, horizontal surfaces and “box-like” appearances shall be avoided. Display windows, store entrances, upper windows and other architectural features are encouraged in these locations.

(BOX-LIKE APPEARANCE)
DISCOURAGED

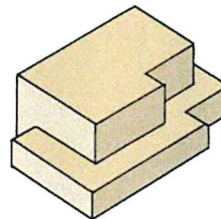


(VERTICAL ARTICULATION)
ENCOURAGED



- c) Building setbacks that transition from the public right of way shall incorporate hardscape materials (pavers, colored / stamped concrete, raised planters, etc.) that are compatible with public right of way improvements to promote comfortable pedestrian activity and accommodate seating and shade as well as protection from the elements.

(VERTICAL ARTICULATION)
ENCOURAGED



2) Guidelines:

- a) A building's main front façade should not be set back far from the street. The majority of a building footprint should, especially at the street edge, contact the ground plane with a design that reflects the retail, office, or residential use.

Downtown Specific Plan

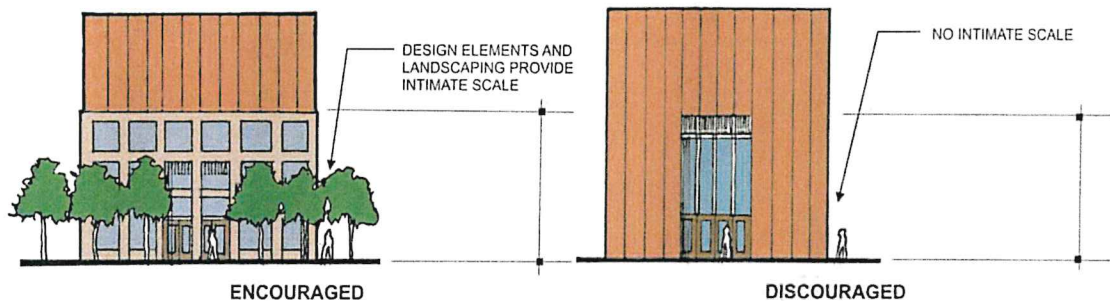
DESIGN POLICIES, STANDARDS & GUIDELINES

- b) Pedestrian-oriented storefront windows should be located on the street edge as well as pedestrian-scale signage, canopies, and awnings. Doors can be offset slightly away from the street to increase window area.
- c) Changes in paving, hedges and walls also should be used to define the street edge in addition to building façades.
- d) Buildings that are elevated to accommodate 'tuck-under' parking are strongly discouraged because they 'disconnect' the building's users from the ground, street and neighborhood.

d. Pedestrian-Oriented Environment Smart Growth Policy:

Incorporate higher building profiles and pedestrian-scaled features that strengthen a compact, pedestrian-oriented environment.

A compact, walkable community is established by incorporating narrow storefronts and lots with increased frequency of entry points in both commercial and residential buildings that limit long expanses of inactivity along the street.



1) Standards:

- a) Projects shall incorporate high-profile and vertical design features sufficient to portray a desirable urban quality and comfortable public realm with adjacent buildings.
- b) The ground-floor portion of buildings shall be architecturally distinguished from the upper façade to form a visual base for the building and to create an intimate scale for the pedestrian environment.
- c) Side and rear facades shall be articulated in a comprehensive design that is compatible with the design of the front façade.
- d) Arcades built over the sidewalk or in front of store windows shall be high enough and open enough not to obscure display windows.

Downtown Specific Plan

DESIGN POLICIES, STANDARDS & GUIDELINES

- b) Landscaping shall not be placed so as to screen the doors and windows of units from the street or from walk-ways leading from the street to the dwelling-unit entries.
- c) On-site parking shall not diminish the defined street edge or detract from the pedestrian experience.
- d) Development shall address residential, guest, and commercial parking needs on-site as well as the appropriateness of gated and/or reserved parking.
- e) Exterior lighting fixtures in parking areas and driveways shall utilize cutoff shields, or other appropriate measures, to conceal the light source from adjacent uses and rights-of-way.
- f) Parking lots shall be landscaped to soften their area and provide a visual buffer. A combination of trees and shrubs in a landscaped strip or planter creates an effective separation where a parking lot abuts a public sidewalk.
- g) Structured parking shall create a visually attractive and active street edge to enhance the pedestrian experience in the following manner:
 - i. Parking structures shall generally be limited to extend no more than one-half story above grade adjacent to the sidewalk, or shall be developed below street level.
 - ii. Parking garage facades shall complement the area's existing architecture.
 - iii. A majority of the parking structure's street frontage shall include sufficient retail or commercial space in non-residential areas to accommodate a variety of pedestrian-oriented uses, or construct the parking structure at the rear of the building.
 - iv. Vehicular entry points into garages should be minimized and located to minimize pedestrian exposure.



2) Guidelines:

- a) Public, semi-private, and private ground-level spaces should be defined by utilizing low walls, landscaping, stoops, porches, and decorative paving.

Downtown Specific Plan

DESIGN POLICIES, STANDARDS & GUIDELINES

- b) Features that can protect pedestrians from inclement weather (umbrellas, awnings, canopies, recessed entries, etc.) are encouraged and should be designed as a building's integral features.
- c) On-site parking should be located at the rear of buildings and be oriented in a manner that facilitates surveillance.
- d) Tandem spaces may be appropriate in residential developments.

f. Housing Smart Growth Policy:

Include a variety of housing types and densities to strengthen residents' vested interest in the success of downtown.

Mixed-use and residential development involving a variety of densities creates vibrancy, provides more housing choices, and reduces the need for automobile dependency. Such variety provides residents opportunities for transitioning to different housing types within the same community and balances economic health.

1) Standards:

- a) The residential density for mixed-use developments shall consider the planned urban vision as well as the existing development pattern as a means to establish compatibility.
- b) Residential development shall be a minimum of two stories and shall maintain a strong edge similar to commercial buildings.
- c) Residential projects, with portions of its underground parking extending above the sidewalk line, shall be designed so that the street edge is still attractive and inviting to pedestrians.
- d) Mixed Use commercial uses wrapping around street corners and architectural details that are differentiated on upper elevations shall be incorporated to establish a strong retail edge.
- e) Shopkeeper development shall be designed for owners to operate their businesses while living in the attached unit, which also provides separate exterior access to the residential portion of the unit.



Downtown Specific Plan

DESIGN POLICIES, STANDARDS & GUIDELINES

- f) The non-residential space of shopkeeper units shall be attached and provide access to the main dwelling unit, which shall be located above and/or behind the non-residential space. Areas devoted for residential use shall not be used as space for conducting business with customers or clients.
- g) Artisan loft and/or shopkeeper units shall not be designed to accommodate leasing or purchasing either the residential or commercial space by separate tenants.
- h) Mixed use retail space shall be developed with sufficient interior areas and ceiling heights to accommodate a wide variety of uses. Storefront widths of 25-30 feet with 42-45+ foot depths (inclusive of handicap accessible restroom areas), and 12- to 13-foot-high ceilings are considered to be sufficient.
- i) Shopkeeper commercial spaces shall be developed with sufficient interior areas and ceiling heights to accommodate a variety of businesses. Shopkeeper widths of 20-25 feet with 30-35 foot depths (inclusive of handicap accessible restroom areas), and 10-11 foot-high ceilings create a sufficient minimum area for shopkeeper uses to operate.
- j) Artisan loft space shall be developed with sufficient interior areas and ceiling heights to accommodate a variety of businesses,. Artisan loft widths of 15-20 feet with 18-25 depths (inclusive of handicap accessible rest-room areas), and 9-10 foot-high ceilings create a sufficient minimum area for artisan uses to operate, although higher ceilings may be appropriate in certain circumstances.



2) Guidelines:

- a) Higher density, pedestrian-oriented and mixed-use projects are encouraged that add to the economic viability of the downtown area.
- b) Porches, stoops, balconies and recessed entries in residential projects are encouraged. Design of these elements should retain a sense of privacy, but still allow interaction with the sidewalk while providing 'eyes on the street.'

Downtown Specific Plan

LAND USE DISTRICTS *Historic Downtown*

2. LOCATION

The Historic Downtown District encompasses approximately 170 acres generally located between Second and Third Avenues on the south, Valley Parkway on the north, Centre City Parkway on the west and Palomar Hospital on the east. The District includes over six blocks on both sides of Grand Avenue, which has been historically classified as Escondido's 'Retail Core Area'. Valley Parkway and Second Avenue provide convenient vehicular access to the Downtown Retail Core and to off-street parking lots, while Grand Avenue brings users to the center of activity and offers convenient on-street parking. A pedestrian trail connects the District to the Escondido Transit Center and citywide trail system, while pedestrian walkways and arcade pass-throughs and 'paseos' provide convenient pedestrian connections within Downtown.

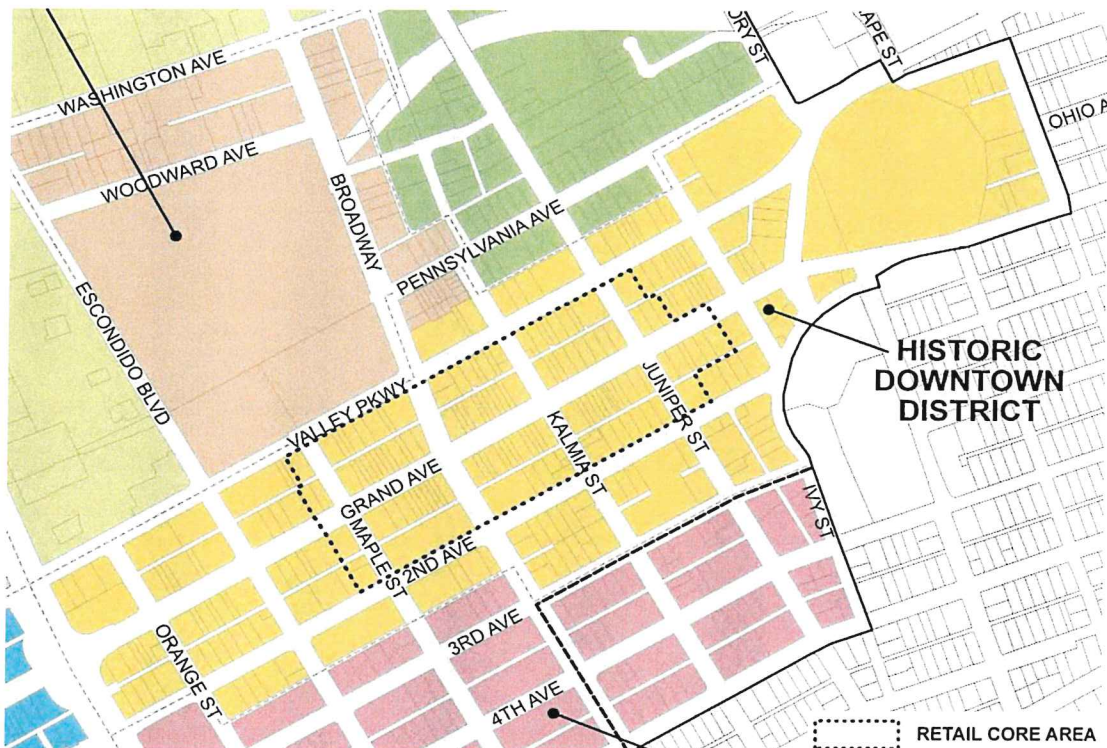


FIGURE V-2

Areas east and west of the Downtown Retail Core provide for expansion and development of offices and services. Businesses in these areas include a full range of professional and medical office uses, but might involve retail establishments based on market demand. Non-residential ground-floor uses are required throughout the Historic Downtown District. Mixed-use developments, with residential uses on upper floors, are encouraged for areas east of Maple Street. A larger concentration of financial and office development is located generally west of Maple Street. This area is intended for more intense non-residential commercial and office development to support a larger downtown workforce.

Downtown Specific Plan

LAND USE DISTRICTS *Historic Downtown*

b. Outside the Retail Core Area

Mixed-use projects are permitted and encouraged for areas east of Ivy Street. Such mixed-uses include: retail and service commercial uses, restaurants, medical, administrative and professional office uses combined with residential uses on upper floors that include opportunities for higher densities.



4. HISTORIC DOWNTOWN DISTRICT DEVELOPMENT STANDARDS

a. Maximum Building Heights, Frontage, Setbacks, Lot Size, Coverage

Refer to Figure III-5 (*Development Standards*).

b. Landscaping

Landscaping shall conform to Article 62 of the Escondido Zoning Code or as determined appropriate through the Planned Development process.

c. Open Space: Mixed-Use Projects

Unless separately established through the Planned Development application process, the minimum usable open space for the residential portion of a mixed-use project shall be 300 square feet per unit. Refer to Chapter III to determine what area(s) may qualify for calculating open space.

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E: mitch@mitchtsailaw.com



155 South El Molino Avenue
Suite 104
Pasadena, California 91101

VIA U.S. MAIL & E-MAIL

October 8, 2019

Adam Finestone – Principal Planner	City of Escondido Planning Commission
City of Escondido Planning Division	City Council Chambers
201 North Broadway	City Hall
Escondido, California 92025	201 North Broadway
Em: afinestone@escondido.org	Escondido, CA 92025

RE: Palomar Heights Project - City Case Numbers: ENV 18-0009, SUB 18-0011, and PHG 18-0049 (City of Escondido)

Dear Sirs/Madams,

On behalf of the Southwest Regional Council of Carpenters (“**Commenter**” or “**Carpenters**”), my Office is submitting these comments on the City of Escondido Planning Commission’s (“**Escondido**” or “**Lead Agency**”) Notice of Preparation of an Environmental Impact Report (“**NOP**”) for the Palomar Heights Project (“**Project**”).

The Southwest Carpenters is a labor union representing 50,000 union carpenters in six states, including in southern California, and has a strong interest in well-ordered land use planning and addressing the environmental impacts of development projects.

Individual members of the Southwest live, work and recreate in the City and surrounding communities and would be directly affected by the Project’s environmental impacts.

Commenter expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

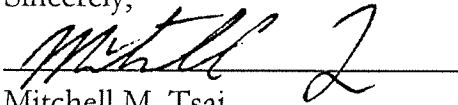
Commenter incorporates by reference all comments raising issues regarding the environmental impact report (“**EIR**”) submitted prior to certification of the EIR for

the Project. *Citizens for Clean Energy v City of Woodland* (2014) 225 CA4th 173, 191 (finding that any party who has objected to the Project’s environmental documentation may assert any issue timely raised by other parties).

Moreover, Commenter requests that the Lead Agency provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (“**CEQA**”), Cal Public Resources Code (“**PRC**”) § 21000 *et seq*, and the California Planning and Zoning Law (“**Planning and Zoning Law**”), Cal. Gov’t Code §§ 65000–65010. California Public Resources Code Sections 21092.2, and 21167(f) and Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency’s governing body.

If the City has any questions or concerns, feel free to contact my Office.

Sincerely,

A handwritten signature in black ink, appearing to read "Mitchell M. Tsai", is written over a horizontal line.

Mitchell M. Tsai

Attorneys for Southwest Regional
Council of Carpenters



Value on Display. Every Day.

November 18, 2019

Mayor Paul McNamara and City Council members
City of Escondido
201 N. Broadway
Escondido, CA 92025



RE: Request for transit-oriented land use development decisions in Escondido

Dear Mayor and City Council,

The undersigned organizations are members of the Quality of Life Coalition committed to building a vibrant, inclusive economy that delivers economic and environmental justice, lifts up communities, creates healthier communities, addresses the climate crisis, and ensures resource conservation.

As leaders of the city, you will make critical decisions about the future of the region in the next few months. From a planning perspective, the city of Escondido is uniquely poised, in time and in place, to be a model for how local government can realize economic and environmental sustainability through land-use decisions.

The city's location on multiple transportation corridors, the urgent need for housing stock that is affordable, the opportunities presented to increase density in the urban core, the need to create good, middle-class jobs for local workers in the region through collective bargaining, including project labor agreements, especially in vulnerable neighborhoods, and the ability to stop the haphazard development in remote and inappropriate areas make your decisions even more critical.

Consider these important facts and issues:

- Escondido has significantly underbuilt housing in the low, moderate, and very low income categories. Of special concern is that Escondido has only built 2.2% of needed housing for moderate-income earners and met only 11% of the low-income need. More density in the urban core would provide more opportunity to address these important needs.
- Increased housing density is needed to support the greater use of transit needed to reduce greenhouse gas emissions. The California Air Resources Board's 2018 report on SB 375 implementation identified a need to provide more affordable housing choices near jobs and transit to help reverse the trend in rising Vehicle Miles Traveled (VMT). Escondido is lucky to have a Sprinter station and well-defined transportation corridors in place. Escondido has vacant and developable areas near and on these corridors where housing density, in accordance with the general and specific plans, should be maximized. Unfortunately, so far, in the places where density is desirable from a planning perspective, the actual projects being built are falling far short.
- The region has cutting-edge, state-approved apprenticeship facilities and a highly skilled, trained and qualified construction workforce. As we have seen many times, linking strong job quality and workforce standards with development projects that provide training and work opportunities for County residents through a Project Labor Agreement with key provisions including participation in state-approved joint labor-management apprenticeship; local hire with enforceable standards targeting vulnerable communities and populations, like veterans; and labor peace result in successful projects that deliver community and local economic benefits.
- Protecting the natural environment, air quality, and creation of open spaces are paramount to creating a livable city. Reducing pressure on significant habitat areas and creating more open space options for residents will result in a city that is more attractive to residents and businesses.

In this light, the undersigned organizations urge the city's elected officials and staff to take actions in the next year to move the city in the direction of sensible land use, creation of housing that is needed, promotion of urban infill, and to move away from inappropriately located development.

Specifically, we request the city take the following actions.

1. Hold-off on decisions related to the proposed redevelopment of Palomar Hospital until a project that includes at least 1,000 units is proposed. The current proposal is less than one third of what is allowable on the site. The location, directly on a transportation corridor and adjacent to downtown, should not be squandered on a low-density, luxury townhome development. This site would be perfect for a public private partnership and should add housing in the ranges needed in the city. The city could also require that some portion of the units be affordable to lower and moderate income families and individuals to help address the goals in the housing element of its General Plan and maximize the opportunity to connect low- and moderate-income households to transit.
2. Initiate a review of development opportunities on parking lots and other areas in transportation corridors to address the need for more affordable units and increase density in the area. These sites, including the hospital site, are prime examples where the Request For Proposals process should be utilized to solicit the kind of partners and development the city and Escondido residents need.

3. Create a stakeholder working group to develop an urban infill/transit oriented development strategy that also addresses the housing needs of lower and moderate income households for downtown and other corridor areas already in the urban footprint prior to making further development decisions. This strategy should then be incorporated into the city's Climate Action Plan Update, to make Escondido the region's leader in implementing the kind of smart growth tools needed at the local level to meaningfully address the climate crisis. We believe the city would have many coalition partners ready to support and help develop the projects needed to activate and enrich Escondido. We would welcome the opportunity to work with you on such an effort.
4. As more development projects come before you, to focus and maximize resources now and to realize a successful transit-oriented future, projects adopted by the city should meet clear objectives. Projects that the city supports should reduce (not increase) VMT; avoid high-risk fire areas; ensure safe evacuation routes for all residents; add to affordable housing stock; qualify as infill developments; contribute to the support of transit; preserve and protect core habitat and open space areas; are on or near transportation corridors; require the job quality and workforce standards referenced above; address climate impacts in the near and long-term; and, implement land use patterns consistent with tenets of good planning. Projects that do not meet these objectives, should not be pursued.

The decisions the city will make soon will set the course for the livability and success of Escondido in the changing world of the future. Whether those decisions will take the city in a positive or negative direction will depend on your actions. Please use these opportunities to bring your development decisions in alignment with transit-supportive land use plans that provide the housing we need for residents of all income levels and in the locations we need them.

We hope you will call on any of our organizations to assist and support the city in these critical decisions.

Sincerely,

Sophie Wolfram, Climate Action Campaign, Chair, QOL Transportation Committee

Rick Bates, UNITE HERE Local 30

Diane Takvorian, Environmental Health Coalition

Bee Mittermiller, Chair Transportation Team, San Diego 350

Tom Lemmon, Business Manager, San Diego County Building & Construction Trades Council

Jennifer Hunt, Advocacy Coordinator, San Diego County Bicycle Coalition

Jeremy Abrams, Business Manager, IBEW 569

George Courser, San Diego Sierra Club

Jim Miller, American Federation of Teachers, Local 1931

Laura Hunter, Escondido Neighbors United

Pamela Heatherington, Environmental Center of San Diego

Cc

Jeff Epp, City Manager

Jay Petrek, Assistant City Manager

Bill Martin, Community Development

Adam Finestone, Planning

Adam Finestone

From: Maria Bowman Real Estate Services <mariabowmanres@gmail.com>
Sent: Sunday, January 13, 2019 4:37 PM
To: Adam Finestone
Subject: Comments on Case No. Sub 18-0011: PHG 18-0049;ENV 18-0009

The Escondido Mercado Association supports this project for the former Palomar Hospital. What we are encouraging is that a traffic plan consider encouraging the traffic that needs to connect to the freeways use East Valley Parkway to go West and 2nd Ave. to enter east. The traffic through the Grand Avenue to be for slower shopping type of traffic with the least speed allowed.

Keeping Grand Avenue as a slow speed. This would be a win/win for residents and business. As a pedestrian friendly Avenue the benefit of an open space / relaxing, walking, eating/shopping.

Currently there does not seem to be signs encouraging through traffic to use the One Way Streets of East Valley Parkway and 2nd Ave. So better management of traffic and no fast traffic through the Grand Avenue, all the way through Quince Street .

Mr. Finestone, please let me know if you have any questions, and thank you in advance for your consideration.

Adam Finestone

From: Leon Ramsey, Jr. <leon@mitchtsailaw.com>
Sent: Wednesday, January 22, 2020 2:49 PM
To: Adam Finestone; Kristin Blackson
Cc: Mitchell Tsai
Subject: [EXT] City of Escondido - Palomar Heights Project [SCH No. 2019059013]

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Good afternoon,

Our office is an interested party who submitted initial comments on the above-referenced project. We would like to know the current status of the project. Has the DEIR been released yet? Are there any hearings coming up?

Also, as indicated in our initial letter, this office would like to be included on the notification list for this project. Can you please confirm that the following email addresses are included: **mitch@mitchtsailaw.com** and **leon@mitchtsailaw.com**?

Your attention to this matter is greatly appreciated.

Thank you,

Leon Ramsey Jr.

Paralegal / Office Manager

Mitchell M. Tsai, Attorney At Law

155 South El Molino Avenue

Suite 104

Pasadena, CA 91101

Office: (626) 381-9248

Phone: (626) 389-8320

Fax: (626) 389-5414

Email: leon@mitchtsailaw.com

Website: <http://www.mitchtsailaw.com>

*** Our Office Has Recently Moved. Please Note New Mailing Address ****

CONFIDENTIALITY NOTICE: This e-mail transmission, and any documents, files or previous e-mail messages accompanying it, may contain confidential information that is legally privileged. If you are not the intended recipient, or a person responsible for delivering it to the intended recipient, you are hereby notified that any disclosure, copying, distribution or use of any of the information contained in or attached to this message is STRICTLY PROHIBITED and may violate applicable laws including the Electronic Communications Privacy Act. If you have received this transmission in error, please immediately notify us by reply e-mail at mitch@mitchtsailaw.com or by telephone at (626) 381-9248 and destroy the original transmission and its attachments without reading them or saving them to disk. Thank you.



Palomar Heights

Palomar Health Downtown Campus

January 30, 2020

Mr. Adam Finestone
Principal Planner
City of Escondido

Adam,

I've reviewed the applicant's 4th submittal. It appears little of significance has changed, so my past conclusions remain the same. The proposed suburban approach simply does not meet the standards and goals fundamental to the DTSP.

My October 2, 2019 letter, with references to applicable DTSP sections, is still relevant.

It is my opinion, until fundamental planning and design changes are made to bring the project into conformance with the DTSP, it should not be scheduled for Planning Commission hearing.

Respectfully,
Ken Erickson, Architect

Adam Finestone

From: Greg Danskin <danskin.greg@gmail.com>
Sent: Thursday, January 30, 2020 4:54 PM
To: Adam Finestone
Subject: [EXT] Palomar Heights Latest review

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Hello Adam,

I have reviewed the latest plans for Palomar Heights on the City website.

The fundamental issues remain unresolved, leaving a proposed project that still does not adequately satisfy the vision of the Escondido Downtown Specific Plan. My previous comments are still valid. I don't see how this project can go forward until the basic nature of the project is brought in line with that vision.

Respectfully,

Greg Danskin

--

GREG DANSKIN ARCHITECT
760.532.2361 (M)
WWW.DANSKINARCHITECTURE.COM

This message and any files attached herewith are confidential and may contain privileged material for the sole use of the intended recipient. Any unauthorized review, distribution, disclosure, copying, use or dissemination, either whole or in part, is strictly prohibited. If you are not the intended recipient of the message, please notify the sender immediately by return email or telephone. Delete the original message including the attachments and destroy all hard copies. If you are the intended recipient, please be aware that since emails can be altered electronically, the integrity of this communication cannot be guaranteed.

Adam Finestone

From: Mark Kalpakgian <mark.kalpakgian@gmail.com>
Sent: Thursday, April 2, 2020 5:19 PM
To: Palomar Heights Project
Cc: Paul McNamara; Olga Diaz; Michael Morasco; Consuelo Martinez
Subject: [EXT] Palomar Heights Community Feedback

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Adam, Mayor Paul, and Members of the City Council:

I was recently interviewed by Ninia Hammond with Integral Communities. She wanted to know my perspective on the Palomar Heights project since I work downtown at The Classical Academies and am a Board Member for the North County Economic Development Council. I thought it might be helpful to share some of my high level comments with you too:

1. A few years ago I took the family to visit DC and spend some time with my brother-in-law's family. He works for the FBI and was living in the "Mosaic District." One of the days we stayed outside the city and spent the afternoon leisurely touring the Mosaic.

<https://mosaicdistrict.com/>

It was truly incredible and awe-inspiring, and I think it could be a model for the Palomar Heights vision. The mosaic integrates the following concepts: live, fun, film, shop, dine, work, services, stay (hotel). The project is pedestrian-oriented and is an exciting place to work, live or play. Very dynamic!

2. The site of the former Palomar Hospital is truly unique because it acts as a gateway to downtown. Additionally, it has the opportunity to stimulate and shape the character of downtown for years to come. For these reasons, I am in favor of a very pedestrian-oriented ground level that invites the community in and engages it on a variety of levels. Again, look at the Mosaic District for an idea of how this is done.

3. The site should encourage residents to live and work downtown.

4. A monolithic apartment building complex with little architectural character isn't ideal for this location. Significant grading and flattening that isolates the complex from the street and community is not ideal either.

5. Having the site composed of mixed-use between business and residential is a great thing for downtown and for our city's future.

6. I am very much in favor of incorporating unique or boutique businesses into the space such as a microbrewery, grocery, restaurant, bakery, downtown hotel etc.

To summarize, I know many local residents that want to see this project successful but also want to see if complement Escondido's unique character and ethos. Having a "walk and enter" feel that invites the community in is of quintessential importance. Incorporating mixed-use residential and commercial is desirable and finally, having a unique architecture that interacts naturally with the environment and respects the downtown specific plan is ideal.

Respectfully,

Mark Kalpakgian
760-535-5189

PALOMAR HEALTH

Passion. People. Purpose.™

May 20, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Re: Palomar Heights Project

Palomar Health is fortunate to be a part of the Escondido Business Community and we would like to thank you for your leadership in our great City.

As an Escondido Employer, a property Owner, and a health care partner, we are writing to you to indicate our support of the Palomar Heights Project as currently presented by Integral Communities.

The Palomar Medical Center Downtown Campus and ancillary offices have been part of Palomar Health for decades. The challenges of this property are not lost on us as we endeavored to rehabilitate this campus prior to commencing construction on our "new hospital". Once the new hospital was identified, we worked with stakeholders, policy makers and neighbors on the Downtown Specific Plan, which calls for this to be revitalized into a mixed-use community of housing and retail.

Based on the current proposal of 510 residential units, 10,000 square feet of commercial and the associated improvements including the marquee corner feature, the reconfiguration of Valley Boulevard, the associated improvements and recreation, our Board is supportive. We have worked with Integral Communities through many plan iterations and community suggestions. The current plan reflects changes in response to community, staff and Planning Commission comments.

Our Board formally extends its support of the project as proposed by Integral Communities.

We are experts in the profession of health care and we are excited about the partnership with Integral Communities and the City of Escondido as experts in their fields of housing and development. Palomar Heights will be a home and landmark community for many Escondido families in the future who will endeavor to support the many Escondido businesses in the Grand revitalization corridor. Palomar Health is very proud of the legacy of the campus and looks forward to seeing it move toward the future!

Sincerely,



Diane L. Hansen, CPA
Palomar Health
President and Chief Executive Officer

Administration

456 East Grand Avenue, Escondido, CA 92025 | T 760.740.6393 | PalomarHealth.org

A California Public Healthcare District



**North San Diego County
Association of REALTORS®**

05/22/2020

To:

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Critical Housing Shortage and Support of Additional Housing

The shortage of housing opportunities in North San Diego County has reached crisis levels. Without adequate housing to meet our regional needs, we will continue to feel increasingly worse economic impacts. Already we are seeing employers expressing concern that their employees can't find places to live that they can afford. This means residents and workers alike will continue to have to share housing and live with relatives. As a result of this, we can see further impacts on traffic, schools, emergency services, and infrastructure without the impact fees that could help resolve these issues.

We have become aware of the housing project on Valley Blvd. at the old hospital called Palomar Heights, which will provide much needed attainable middle-income housing stock as well as valuable senior-focused units. While NSDCAR does not support individual developers, we have looked at this project and believe that it should be approved for construction as it provides much-needed housing for middle income and vulnerable communities in Escondido.

Sincerely,

Taylor Thompson
Government Affairs Director
North San Diego County Association of REALTORS®

Adam Finestone

From: Mike Strong
Sent: Thursday, June 11, 2020 4:56 PM
To: Adam Finestone
Subject: FW: [EXT] Sierra Club Comment letter opposing any extension of escrow for Old Palomar Hospital site
Attachments: 8June2020_SierraCLubNCG_comment letter on Escrow extension.pdf; NCG_DEIR_commentletter_PalHeights.pdf; NCG_PalHts_NOP_commentLetter_20MAY_2019.pdf

For file.

From: earthlover@sbcglobal.net <earthlover@sbcglobal.net>
Sent: Monday, June 08, 2020 3:09 PM
To: nancy.wood@palomarhealth.org
Cc: Paul McNamara <pmcnamara@escondido.org>; Consuelo Martinez <cmartinez@escondido.org>; Olga Diaz <Odiaz@escondido.org>; Michael Morasco <Mmorasco@escondido.org>; Mike Strong <mstrong@escondido.org>
Subject: [EXT] Sierra Club Comment letter opposing any extension of escrow for Old Palomar Hospital site

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Ms. Wood,

Please find attached our comment letter regarding any requests to extend the escrow for the Old Palomar Heights purchase.

Please distribute to the Board members and Executive Director Hansen

I would appreciate if you let me know that you received this communication. I am out of town and cannot attend the Board meeting.

Thank you

Laura Hunter, Chair

NCG Conservation Committee



North County Group
Sierra Club San Diego
P.O. Box 2141
Escondido, CA 92033



June 8, 2020

Dear Chair and Board members
Palomar Hospital Board
Via Email nancy.wood@palomarhealth.org

RE: Request to DENY any further extensions of escrow with Integral and re-issue a Request for Proposals for the Old Palomar Hospital site.

Dear Chair and Board members,

Sierra Club North County Group (NCG) represents 2,600 members in inland North San Diego County and our Chapter has 20,000 members in the County. NCG has a long-standing interest in this issue and we have been very involved in efforts to secure the kind of high-density, transit-oriented infill project the city needs at this location.

We oppose the Palomar Heights proposal for the many reasons outlined in our attached letters. We understand that the Palomar Hospital Board may be considering an extension for escrow for sale of the hospital site at some point. Integral has had almost two years to bring a project to the city that meets its needs and has failed to complete the process in a reasonable time. As a community we need to move on to find a developer who can propose a project that meets the community needs.

For this reason, we believe that any additional extensions of escrow are not in the Palomar Hospital Board's or the public interest.

Sierra Club NCG is a strong supporter of an appropriate, higher-density urban infill project in this signature location in the heart of Escondido. We know we must densify our urban and transportation corridors if we are to effectively address the climate crisis. Further, we must provide housing product for range of income levels.

We join many others in wanting progress on this site and believe the best and the most expedient way to achieve sale of the property and secure a quality project is re-open the option to compete for this site to other development interests.

As a result, **we strongly urge Palomar Hospital Board to end the escrow per current agreement and to re-issue an RFP as soon as possible.** Such an action is best suited to meeting the needs of the Hospital Board, the city, and the residents.

In so many ways, Escondido and the world have changed since the RFP was initially awarded. The region and the city need a partner that reflects those needs and changes. We have seen the

'highest-and-best' proposal from Integral of what their vision for the site is, and it is not the vision of our members or our community.

As a community, we want a developer who sees and is committed to the potential of our city. We should be looking for a developer to celebrate Escondido and that understands the vision and uniqueness of this location, a partner that is a proven producer of transit-oriented development, understands public-private partnerships, labor contracts, environmental issues, and, maybe most importantly, has a proven track record of experience and commitment to high-density, mixed-income infill projects.

There are new realities our city and world face now and there is new interest in our city.

We strongly recommend the escrow be ended as soon as possible and a new RFP be issued so that we can move forward with development of the project on this site that meets the needs of the city.

Sincerely,



Laura Hunter, Chair
Sierra Club NCG Conservation Committee

cc.

Executive Officer Diane Hansen

Nancy Wood nancy.wood@palomarhealth.org

Adam Finestone

From: Heather Thelen <heather@hawthornecountrystore.com>
Sent: Tuesday, June 23, 2020 10:14 AM
To: Palomar Heights Project
Subject: [EXT] support for Palomar heights

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Honorable Mayor Paul McNamara

Deputy Mayor Consuelo Martinez

Council Member Olga Diaz

Council Member Michael Morasco

City of Escondido

City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Honorable Mayor and Council members:

The City of Escondido has a tremendous opportunity to further its mission of planning for more vitality and vibrancy in the downtown area by approving the Palomar Heights project. Today, I would like to pledge my support for Palomar Heights.

The current design features 510 residential units, 10,000 square feet of commercial space and numerous community and resident benefits. Palomar Heights has been carefully crafted to complement businesses like mine and generate the much-needed foot traffic to our downtown corridor, helping our businesses to thrive. In this unpredictable phase all of us are uncertain of what the future holds. The time is now to be united in our support for operators like Palomar Heights who are willing to invest in our city so we can flourish for years to come.

Furthermore, as a business owner of Escondido, I know first-hand the challenges we face with housing shortages, particularly with for-sale units. This project would significantly contribute to our city's housing

supply. From age-targeted senior housing, to for-sale townhomes and apartments for rent Palomar Heights will invite a diverse population into our community to enliven downtown throughout the day and into the night.

I have not always been in favor of all projects in my home town I was born and raised in and now have our business, children and grandchildren here. This project is good for our downtown.

This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,

--
Heather Thelen
Hawthorne Country Store
675 W Grand Ave.
Escondido, CA 92025
760-746-7816

Adam Finestone

From: Nick Pryor <nick@clueavenue.com>
Sent: Friday, June 19, 2020 5:46 PM
To: Palomar Heights Project
Cc: Lori Pike
Subject: [EXT] Palomar Heights Project

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

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This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Kind regards,

Nick Pryor

General Manager • ClueAvenue.com

[760-349-6609](tel:760-349-6609) • nick@clueavenue.com

201 E Grand Ave, Suite 2G, Escondido, CA



Adam Finestone

From: molly@frommollywithlove.com
Sent: Wednesday, June 10, 2020 6:34 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

From: mktucker@gmail.com
Sent: Wednesday, June 17, 2020 5:15 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

From: Jill Reilly <jill@cutecakes.com>
Sent: Monday, June 22, 2020 8:55 PM
To: Palomar Heights Project
Cc: Lori Pike
Subject: [EXT] Escondido Needs This Project

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Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco

City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Honorable Mayor and Council members:

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Furthermore, as a business and property owner in Escondido, I am aware of the challenges we face with housing shortages, particularly with for-sale units. This project would significantly contribute to our city's housing supply. From age-targeted senior housing, to for-sale townhomes and apartments for rent Palomar Heights will invite a diverse population into our community to enliven downtown throughout the day and into the night.

Our historic Grand Avenue has so much potential to be a thriving retail shopping and dining area, but we need to have more feet on the street in order to keep our current businesses alive, and entice new ones to come in and fill the empty spaces. A well thought-out design like Palomar Heights is just what we need to get those people into our city and into our stores and restaurants. This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,

Jill Reilly, CEO & Cake Artist

Cute Cakes

BAKERY & CAFE

p: 760.745.5278 c. 858-518-6315
a: 345 West Grand Ave, Escondido, CA 92025
w: www.cutecakes.com e: Jill@cutecakes.com



June 19, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

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Furthermore, as a business owner of Escondido, I know first-hand the challenges we face with housing shortages, particularly with for-sale units. This project would significantly contribute to our city's housing supply. From age-targeted senior housing, to for-sale townhomes and apartments for rent Palomar Heights will invite a diverse population into our community to enliven downtown throughout the day and into the night.

This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,



John Maloney CEO
Maloney & Assoc.
435 W. Grand Ave
Escondido 92025

June 19, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

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This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,

Helen Maloney, President
Maloney + Associates

435 West Grand Avenue

Escondido CA 92025

760 738-2610 Cell 760 212-2870

June 22, 2020

City of Escondido

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Re: Support for Palomar Heights

I am an investor in multiple downtown Escondido projects including 355 E. Grand Ave which was completely gutted and rebuilt after sitting vacant for approximately 2 years and leased to Classical Academy.

In addition, I was involved in the acquisition and leasing of the 5th Ave. Corporate Center (235 W. 5th Ave) which was completely renovated in 2017 with the entire 2nd floor rebuilt and leased to Finance of America, a subsidiary of the Blackstone Group NYSE: BX) along with the retail center at 426W. 2nd Ave that includes the Phone Repair Store, Best Foot Forward Dance studio and Tortilleria. Most recently, I completed \$2M renovation of another project which sat vacant for over a year (704 E. Grand Ave) and is directly across the street from the east border of Palomar Heights.

The only way I would consider another speculative investment in downtown Escondido, and I know for a fact this sentiment is shared by others, is if the positive momentum of retail renovation is able to regain traction from the COVID meltdown and mature into the stabilized submarket that it is destined to be where one can Live/Work/Eat/Play. The only way that is going to happen is for more jobs and homes to increase foot traffic to this treasure of a community. I can't stress enough how important it is to see the Palomar Heights project approved ASAP. That news alone will be a powerful source of hope for those who have paved the way and for the many who have recently invested their hearts and souls, if not their life savings, to stay the course and not give up on opening or keeping open a most vital part of Downtown Escondido.

Please join me in support of the Palomar Heights project.



Matthew D. Belshin
Managing Member
704 E. Grand Ave., LLC
Del Mar, Ca 92014

Adam Finestone

Sent: Tuesday, June 23, 2020 6:22 AM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

From: fjrdiver@aol.com
Sent: Tuesday, June 23, 2020 7:35 PM
To: Palomar Heights Project
Cc: Lori Pike
Subject: [EXT] Palomar heights

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

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This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,

Francis Ronalds

The Sculpture Salon

401 E. Grand Ave.

Escondido,ca 92025

June 19, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
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Escondido, CA 92025

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Dear Honorable Mayor and Councilmembers:

The City of Escondido has a tremendous opportunity to further its mission of planning for more vitality and vibrancy in the downtown area by approving the Palomar Heights project. Today, I would like to pledge my support for Palomar Heights.

The current design features 510 residential units, 10,000 square feet of commercial space and numerous community and resident benefits. Palomar Heights has been carefully crafted to complement businesses like mine and generate the much-needed foot traffic to our downtown corridor, helping our businesses to thrive. In this unpredictable phase all of us are uncertain of what the future holds. The time is now to be united in our support for operators like Palomar Heights who are willing to invest in our city so we can flourish for years to come.

Furthermore, as a business owner of Escondido, I know first-hand the challenges we face with housing shortages, particularly with for-sale units. This project would significantly contribute to our city's housing supply. From age-targeted senior housing, to for-sale townhomes and apartments for rent Palomar Heights will invite a diverse population into our community to enliven downtown throughout the day and into the night.

This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,



Stephen Lingenfelder
MIYO Business Manager/Owner
949-981-5057

June 19, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Honorable Mayor and Councilmembers:

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Sincerely,



Stephen Lingenfelder
MIYO Business Manager/Owner
949-981-5057

Adam Finestone

From: Louisa Magoon <LouisaM@THEGRANDTEAROOM.COM>
Sent: Wednesday, June 24, 2020 11:58 AM
To: Palomar Heights Project
Cc: Lori Pike
Subject: [EXT] FW: FW: Support Needed For Palomar Heights Project - Please Read
Attachments: Palomar Heights Support Letter.pdf

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Hello,

Below is an email from a business in downtown Escondido called MIYO. Attached is her letter in support of the Palomar Heights project. This project is extremely important to our downtown and we support it wholeheartedly!

Sincerely,

Louisa Magoon
760-233-9500



www.thegrandtearoom.com

Please Like Us on Facebook and comment on Yelp

From: MIYO - Make It Your Own <miyowithgio@gmail.com>
Sent: Wednesday, June 24, 2020 11:46 AM
To: Louisa Magoon <LouisaM@THEGRANDTEAROOM.COM>
Subject: Re: FW: Support Needed For Palomar Heights Project - Please Read

Hi Louisa,

Hope you are well.
Please see attached our signed letter in support.
Let me know if you need anything else.

Cheers,

Stephne Lingenfelder

On Mon, 22 Jun 2020 at 18:28, Louisa Magoon <LouisaM@thegrandtearoom.com> wrote:

Hi everyone,

As you know, plans for the old hospital property downtown have been in the works for some time. The developer is Integral Properties. The project manager, Ninia Hammond did a presentation for our Merchant Mixer in January. It is a beautiful project that includes some commercial businesses and 510 condos of various sizes and types. This would be a huge plus for our downtown. We need the business this would bring to downtown and still keep our unique historic ambiance.

When the project was first introduced to the DBA over a year ago, we suggested some changes that would make the project even more beautiful and accessible to downtown. They made the changes and it looks great. Apparently, there are those who do not support the project so those of us who do need to make our voices heard. Below is an email from one of our businesses in support of the project and attached is a Palomar Heights Support Letter and flyer with a picture of the front of the project and a description of what it would include. I heard that one opponent is insisting on more commercial in the project. The amount of commercial it includes now is enough because it would not take away from our businesses downtown. We need all those folks to come and eat and shop in our businesses.

Below is an email from one of our downtown businesses in support of the project with more instructions on how to make our voices heard.

Please take the time to read her email, the letter provided and the flyer and send your letter of support to our City Council members.

Sincerely,

Louisa Magoon

760-233-9500

From: Melissa Walker <melissa@distinctionart.com>
Sent: Friday, June 19, 2020 9:26 AM
To: Melissa Inez Walker <melissa@distinctionart.com>
Subject: Support Needed For Palomar Heights Project - Please Read

Hello All,

I was recently contacted by the project manager for the Palomar Heights Project in regards to a letter of support I sent to the city in support of the project.

Apparently due to everything that has been going on they have not garnered nearly the support that they hoped for from the community and have had some pushback.

I LOVE this project. It would bring 510 condos to downtown plus a bar, restaurant, secret garden, and more.

I know everyone is swamped right now, but if you can take a few moments to read the flier and then sign your name and business name to the attached letter it would be greatly appreciated. This project would bring a huge amount of people to our downtown businesses.

I am sending this letter to those who I believe will actually follow up and send the letter. Please share it with others that you feel will do the same. The meeting is happening soon so ideally these will get out asap.

Please send the letter to palomarheights@escondido.org and copy lpike@escondido.org

Thank you so much.

Sincerely,

Melissa

I also pasted the letter below for anyone not able to open the pages doc

May 20, 2020

Honorable Mayor Paul McNamara

Deputy Mayor Consuelo Martinez

Council Member Olga Diaz

Council Member Michael Morasco

City of Escondido

City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Honorable Mayor and Council members:

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Furthermore, as a business owner of Escondido, I know first-hand the challenges we face with housing shortages, particularly with for-sale units. This project would significantly contribute to our city's housing supply. From age-targeted senior housing, to for-sale townhomes and apartments for rent Palomar Heights will invite a diverse population into our community to enliven downtown throughout the day and into the night.

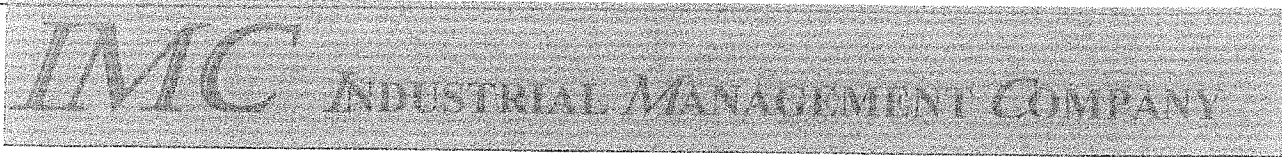
This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,

NAME

ADDRESS/BUSINESS

Melissa Inez Walker
Distinction Gallery
317 E Grand Ave
Escondido, CA 92025
(760) 707-2770
distinctionart.com



BRE License#01290136

June 22, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Re: Palomar Heights Project

I would like to express my support for the Palomar Heights project and ask the City Council to approve this project.

As a commercial broker having experience in Escondido, I have a particular interest in the redevelopment of the old hospital and the revitalization of downtown. Palomar Heights will bring economic vitality to downtown and more particularly this part of Grand Avenue and to the east. As a nearby property owner, I also believe strongly that the 510 residential unit plan with a mix of apartments, and for sale housing will greatly benefit the city, downtown merchants, and surrounding property owners.

Further, this project would help meet the increasing housing demand that the city faces, and provide hundreds of new residents with vested interest in success of downtown Escondido.

Sincerely,

Industrial Management Company

Brandon Keith
President

June 22, 2020

City of Escondido

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

Re: Support for Palomar Heights

We are writing to express our support of the Palomar Heights project based on our review of both the residential and commercial mixed use aspects. This is a project that we think is commercially viable, and that we would be interested in being an operator in and to fully support it any way possible.

This will bring viable uses to downtown Escondido adding to our wonderful Grand commercial atmosphere and the added population of 1400 residents is needed to keep our shops, restaurants and bars in business.

We currently own a 40,000 sq ft office complex, two restaurants of approximately 16,000 sq ft and 107 acres of land with a boutique hotel in San Pasquel Valley. We currently employ approximately 200 people within Escondido with another 200 in the Vista area.

We have advised the developer that are happy to commit contractually to the restaurant sites, sandwich shop and boutique grocery store in this development which we anticipate would create another 100 plus jobs. It is our hope that the restaurants and grocery store would sell local homegrown products from the Escondido and close surroundings.

This is an exciting project! Let's get together and make this happen so we can enjoy a glass of wine at the Sky Lounge as soon as possible.

Brian Bonar
Trucept
Chairman of the Board

Adam Finestone

From: Louisa Magoon <LouisaM@THEGRANDTEAROOM.COM>
Sent: Wednesday, June 24, 2020 7:33 PM
To: Palomar Heights Project
Cc: Lori Pike
Subject: [EXT] Support for Palomar Heights

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

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This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,

Louisa Magoon
760-233-9500



www.thegrandtearoom.com

Please Like Us on Facebook and comment on Yelp

Adam Finestone

From: Cooper, Dolly <dmeas@firstrepublic.com>
Sent: Thursday, June 25, 2020 10:55 AM
To: Palomar Heights Project; Lori Pike
Subject: [EXT] Support for Palomar Heights

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

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This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,

Dolly Meas Cooper

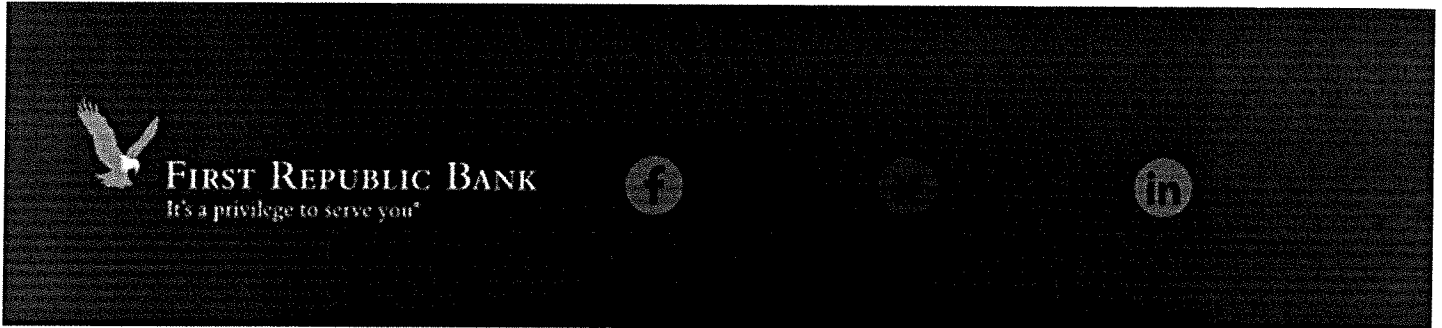
Branch Manager NMLS ID 867292
Preferred Banking Office | FIRST REPUBLIC BANK
116 E Grand Avenue | Escondido, CA 92025
Direct: (760) 839-8941 | Office: (858) 755-5600
dmeas@firstrepublic.com | escondido@firstrepublic.com | www.FirstRepublic.com

- **Go Digital:** Learn what you can do at home with [digital banking at First Republic](#).
- **Special Office Hours:** For our clients aged 60 and over, visit us Monday through Friday from 9:00 a.m. to 10:00 a.m.

- **Uninterrupted Service and Support:** Preferred Banking Office hours are Monday through Friday from 10:00 a.m. to 3:30 p.m.

The highest compliment my clients can give me is the referral of friends, family and business associates.

Please cc Escondido@firstrepublic.com for all wire and transfer request.



The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer. This message cannot be guaranteed to be secure or error-free.

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We reserve the right to monitor and review the content of all email communications sent or received. Emails sent to or from this address may be stored in accordance with regulatory requirements.

Adam Finestone

From: Mark Kalpakgian <mark.kalpakgian@gmail.com>
Sent: Thursday, June 25, 2020 1:30 PM
To: Palomar Heights Project; Lori Pike
Subject: [EXT] Good, But Not Good Enough - Palomar Heights Opposition

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor and City Council Members,

I wanted to take a moment to summarize some basic concerns over the current Palomar Heights project:

1. With the strategic location, it's important to have a mixed-use project that engages and interacts with the community / public. Having 98% of the development dedicated to apartment style residential units, I'm wondering if this is in Escondido's best interest when looking at longterm planning or community engagement.
2. With only 2% commercial included (half of which will be used for their internal staff purposes), this is a huge missed opportunity to engage the community and bring more vitality to downtown.
3. I understand that this unique site is more or less being graded flat with huge portions of slope banks and retaining walls. This doesn't seem to conform to the walkable streets of downtown which I understand to be a fundamental goal of the Specific Plan. Walkable, interactive = better.

What is being proposed seems appropriate for a flat site in a suburban setting, not this this valuable parcel strategically located on the eastern edge of downtown. As such, I think the current development proposal is good, but not good enough. I advocate for further changes and modifications before a final approval is given.

Sincerely,

Mark Kalpakgian

Adam Finestone

From: chickeyrose@aol.com
Sent: Thursday, June 25, 2020 9:02 PM
To: Palomar Heights Project; Lori Pike
Subject: [EXT] Support for Palomar Heights

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Honorable Mayor Paul McNamara

Deputy Mayor Consuelo Martinez

Council Member Olga Diaz

Council Member Michael Morasco

City of Escondido

City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Honorable Mayor and Council members:

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Furthermore, as a resident of Escondido, I know first-hand the challenges we face with housing shortages, particularly with for-sale units. This project would significantly contribute to our city's housing supply. From age-targeted senior housing, to for-sale townhomes and apartments for rent, Palomar Heights will invite a diverse population into our community to enliven downtown throughout the day and into the night.

This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,

Rosemarie Woldin

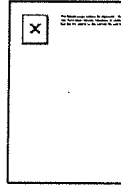
Resident of Escondido. 1471 Vaquero Glen, Escondido, And

Publicity Chair, Escondido Art Association, 121 W. Grand Avenue, Escondido

Adam Finestone

From: Chris McBrearty <chris@equityiq.net>
Sent: Friday, June 26, 2020 5:55 AM
To: Palomar Heights Project; Lori Pike
Subject: [EXT] Fwd: Support for Palomar Heights

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.



Honorable Mayor Paul McNamara

Deputy Mayor Consuelo Martinez

Council Member Olga Diaz

Council Member Michael Morasco

City of Escondido

City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Honorable Mayor and Council members:

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This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Sincerely,

Adam Finestone

Sent: Wednesday, July 8, 2020 12:34 AM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

July 1, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco

City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Please support Palomar Heights

Dear Mayor McNamara and City Councilmembers:

I am writing to you today to encourage you to join me in support of the Palomar Heights project that will be transformative for the downtown area and also provide an essential opportunity for more housing. I spend a tremendous amount of time in Escondido for work and entertainment, but housing options have always been a challenge for me and my family.

The current design features 510 residential units, 10,000 square feet of commercial space and numerous community and resident benefits. Plus, it offers an opportunity for home ownership in a price range that is attainable for a lot of people like me who face a housing market that is consistently low on inventory and is therefore, very competitive.

As a young working professional, I know first-hand the challenges we face with housing shortages, particularly with for-sale units and walkable urban rentals. Furthermore, the for-sale villas at Palomar Heights offer a rate that would make a mortgage payment comparable to what I currently pay in rent. This project would significantly contribute to our city's housing supply and help pave the way for our future generations.

Thank you for the opportunity to submit my support and I encourage you to join me.

Sincerely,

Mayra Salazar

Effinger

34225 Faircrest Street
Murrieta, CA 92563
619-200-3387

July 13, 2020

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco

City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Mayor McNamara and City Councilmembers,

I am writing today in support of the Palomar Heights project which will revitalize the former Palomar Health hospital campus and grow our community in a positive way. As we collectively look toward the future and continue to envision an even better Escondido, Palomar Heights helps to get us closer to that goal. This project is designed to fit in to the downtown specific plan, balance the retail core and provide opportunities for future generations.

I am a member of the Palomar Health Foundation Board. I was formerly a homeowner in downtown Escondido. My daughter and her husband are now Escondido homeowners, and my son and his fiancé are renting in the Old Escondido area, hoping to fulfill their dreams of home ownership in this wonderful town. Palomar Heights could offer to them that home ownership dream in a walkable, urban setting, which something that is tough to find in Escondido. Palomar Heights opens the door to for-sale units that do not exist, especially downtown, and mixes it with a diverse mix of apartments, age targeted senior housing and public amenities, like the innovative Sky Lounge in the icon tower. This is all in addition to the positive impacts to the surrounding businesses who would greatly benefit from an increase in foot traffic.

I am an active member of the Escondido community, involved in various aspects from real estate to the Escondido USD, to volunteering with the Foundation for Senior Wellbeing. Palomar Heights thoughtfully connects downtown and acts as a gateway to the Eastern Valley, a bridge that Escondido should not only welcome but embrace as a means to have more cohesion and inclusion. Please join me in support of Palomar Heights.

Thank you,


Kirk Effinger



Save Our Heritage Organisation
Protecting San Diego's architectural and cultural heritage since 1969

Tuesday, July 14, 2020

City of Escondido
Historic Preservation Commission
201 North Broadway
Escondido, CA 92025-2798

Re: July 16th agenda – Items H.1) 2608 S. Escondido Blvd. and H.2) 121-141 North Fig St.

Historic Preservation Commissioners,

Item H.1) 2608 S. Escondido Boulevard - After reviewing the Initial Study/Mitigated Negative Declaration (MND) and the Historic Structure Assessment for the Paxton Adobe at 2608 South Escondido Boulevard, as well as the HPC staff report, Save Our Heritage Organisation (SOHO) continues to find the Paxton Adobe a unique and significant resource, which is intact and eligible for the California Register of Historical Resources (CRHR) under Criteria 1, 2 and 3 as well as the City of Escondido under all seven criteria.

A MND does not meet the City's legal requirements under the California Environmental Quality Act (CEQA) with regard to this important resource and SOHO finds an Environmental Impact Report (EIR) must be prepared to strategize ways of preserve the adobe building, as well as to devise mitigation that is appropriate for such a significant resource. Potentially subject to a legal challenge, the Paxton Adobe warrants more than HABS documentation and salvaging of materials.

Further, SOHO asserts Findings 1 and 2 under Article 40 have not been made because the City's historical inventory would be diminished through loss of the Paxton Adobe and not all feasible alternatives have been evaluated. First, Finding 1 has not been made due to the Paxton Adobe being a KEY link in the continuity of adobe house construction for the southwestern United States, as well as a model home and office for the Longview Acres Estates subdivision. The staff report notes that "similar adobe resources" of the same time period and style are still existent, however the report does not appear to understand the contextual significance of this specific resource with regard to its various periods of significance, evolutions of use, and association with significant people to Escondido's history. Other adobe resources cannot tell the story of the Paxton adobe because it is unique within the larger historical context and significant beyond its period of construction and style. The staff report should adequately respond to the five other aspects of criteria.

The second Finding also fails because there are options other than demolition. Such a large project already has a budget for mitigation and since the report states \$1,000 would be needed to meet code requirements, it appears inaccurate to assert this is not plausible when HABS documentation to document a demolished building costs more than \$1,000. Further, stating the Paxton adobe cannot be seismically retrofitted is misguided because stabilized adobe resources with short thick walls are inherently stable as well as simple and cost effective to retrofit. SOHO has provided contact information for and encouraged an opinion from respected expert, Tony Court.

SOHO finds the Paxton adobe at 2608 South Escondido Blvd. to be a unique and significant resource that is eligible for the CRHR under Criteria 1, 2, and 3 at the local and state levels. This cultural link represents the continuity of building adobe houses throughout the decades within the entire southwestern region and a MND does NOT meet the City's legal requirement under CEQA. Further, Finding 1 and 2 have not been met. Challengeable under CEQA, SOHO asserts an Environmental Impact Report (EIR) must be prepared for the Paxton adobe, which must include alternatives to preserve the full adobe building.

Item H.2 - 121-141 North Fig St. - After reviewing the Draft Environmental Impact Report (DEIR), Historic Report, and staff report, Save Our Heritage Organisation (SOHO) encourages the project to make every effort to relocate and/or adaptively reuse this Master Architect Russell Forester resource, which is a modest sized building. Mid Century Modernism is part of Escondido's sense of place, especially for the downtown area; this project should seek to complement its neighborhood, by finding an appropriate new location and helping with relocation costs as part of the mitigation.

Thank you for the opportunity to comment,



Bruce Coons
Executive Director
Save Our Heritage Organisation



P: (626) 381-9248
F: (626) 389-5414
E: mitch@mitchtsailaw.com

Mitchell M. Tsai
Attorney At Law

155 South El Molino Avenue
Suite 104
Pasadena, California 91101

VIA U.S. MAIL & E-MAIL

July 16, 2020

Escondido Historic Preservation Commission
City Hall
201 North Broadway
Escondido, CA 92025

Attn: Adam Finestone
City of Escondido Planning Division
201 North Broadway
Escondido, California 92025
Em: palomarheights@escondido.org

RE: Comments on Agenda Item No.: H.2: Palomar Heights—NON-
EMERGENCY DEMOLITION PERMIT- SUB 18-0011; PHG 18-
0049 and ENV 18-0009

Dear Members of the Escondido Historic Preservation Commission and Mr. Finestone:

On behalf of Southwest Regional Council of Carpenters (“**Commenter**” or “**Southwest Carpenters**”), my Office is submitting these comments on the City of Escondido’s (“**City**” or “**Lead Agency**”) request for a non-emergency demolition permit to demolish an International-style medical office building identified by the City as a historic resource for the Palomar Heights Project (“**Project**”).

The Southwest Carpenters is a labor union representing 50,000 union carpenters in six states, including in southern California, and has a strong interest in well-ordered land use planning and addressing the environmental impacts of development projects.

Commenters expressly reserve the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. (Gov. Code § 65009(b); Pub. Resources Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.)

Commenters incorporate by reference all comments raising issues regarding the DEIR or the final Environmental Impact Report (“**EIR**”) submitted prior to certification of the EIR for the Project. (*Citizens for Clean Energy v City of Woodland* (2014) 225 Cal. App. 4th 173, 191 [finding that any party who has objected to the Project’s environmental documentation may assert any issue timely raised by other parties].)

I. **THE CITY SHOULD CONTINUE THIS ITEM UNTIL THE HISTORIC PRESERVATION COMMISSION CAN HEAR LIVE PUBLIC COMMENT**

We ask the City to continue consideration of the Project until the City is able to adopt teleconferencing procedures that allow the public to participate and speak on items directly to the Historic Preservation Commission during meetings.

The Brown Act already contains provisions for conducting public meetings by teleconferencing and video conferencing. Under the Brown Act, “[T]he **legislative body of a local agency may use teleconferencing** for the benefit of the public and the legislative body of a local agency in connection with any meeting or proceeding authorized by law.”(Gov. Code § 54953(b)(1).) The Brown Act defines “teleconference” as “a meeting of a legislative body, the members of which are in different locations, connected by **electronic means, through either audio or video, or both.**” (Gov. Code § 54953(b)(4).)

When a local agency uses teleconferencing, the Brown Act requires that the teleconference information be available on the meeting agenda and that the teleconference be accessible to the public. (Gov. Code § 54953(b)(3).) Importantly, the Brown Act further requires that the agenda “**provide an opportunity for members of the public to address the legislative body directly pursuant to Section 54954.3 at each teleconference location.**” (Gov. Code § 54953(b)(3).) The above requirement of section 54953(b)(3) of the Brown Act allows for the use of teleconferencing to satisfy the requirements of section 54954.3 that members of the public have the opportunity to comment on an agenda item either before or during a meeting. (Gov. Code § 54954.3(a) [“Every agenda for regular meetings shall provide an opportunity for members of the public to directly address the legislative body on any item of interest to the public, before or during the legislative body’s consideration of the item.”].) As such, any public meeting conducted by teleconference but does not allow for public comment during the meeting violates the Brown Act.

The Brown Act does contain emergency provisions—however, none of these provisions provide for prohibiting public comment during a meeting.

First, the Brown Act allows public meetings in certain emergency circumstances with limited (one-hour) or no prior notice. (Gov. Code § 54956.5.) Second, the Brown Act contains authority allowing action on items not included on a posted regular agenda in certain emergency situations. (Gov. Code § 54954.2(b)(2).) Lastly, in certain emergency situations, the Brown Act allows for a public meeting location to change without notice as long as local media is notified “by the most rapid means of communication available at the time.” (Gov. Code § 54954(e).)

Notably, the emergency provisions above in the Brown Act pertain only to notice, location, and agency action. No provision of the Brown Act contemplates abrogating the public’s right to provide comments during a public meeting either in-person or, if necessary, by teleconferencing or video conferencing. (See Cal. Gov. Code §§ 54953(b)(1), (b)(3), (b)(4).)

Even if Governor Newsom’s March 17 EO and March 21 EO were valid under the California Constitution as to the Brown Act, a local agency that does not permit public comment during a public meeting fails to comply with those orders. The March 17 EO explicitly states:

All state and local bodies are urged to use sound discretion and to make reasonable efforts to **adhere as closely as reasonably possible to the provisions of the Bagley-Keene Act and the Brown Act**, and other applicable local laws regulating the conduct of public meetings, **in order to maximize transparency and provide the public access to their meetings**. (March 17 EO, p. 4.)

Many municipalities are allowing public comment during teleconferenced meetings, which shows that adherence to the Brown Act provisions discussed above is possible during the COVID-19 state of emergency. For example, the Cities of San Francisco, Los Angeles, and other cities allow members of the public to directly address the decision-making body through Zoom or other teleconference services during the virtual meeting. Thus, any local agency which does not provide for public comment during a public meeting—teleconferenced or otherwise—violates the California Constitution, article I, section 3(b)(7) and the Brown Act as well as in violation of Governor Newsom’s executive orders.

For the above reasons, we request that the City continue consideration of the Project until after the lifting of the COVID-19 State of Emergency to allow full public participation and full compliance with the Brown Act and the California Constitution.

II. **THE NONEMERGENCY DEMOLITION PERMIT WOULD BE APPROVED OR RECOMMENDED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

A. Background Concerning the California Environmental Quality Act

CEQA has two basic purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (14 California Code of Regulations (“CCR” or “CEQA Guidelines”) § 15002(a)(1).) “Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR ‘protects not only the environment but also informed self-government.’ [Citation.]” (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.) The EIR has been described as “an environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.” (*Berkeley Keep Jets Over the Bay v. Bd. of Port Comm’rs.* (2001) 91 Cal. App. 4th 1344, 1354 (“*Berkeley Jets*”); *County of Inyo v. Yorty* (1973) 32 Cal. App. 3d 795, 810.)

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures. (CEQA Guidelines § 15002(a)(2) and (3); see also, *Berkeley Jets*, 91 Cal. App. 4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553; *Laurel Heights Improvement Ass’n v. Regents of the University of California* (1988) 47 Cal. 3d 376, 400.) The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to “identify ways that environmental damage can be avoided or significantly reduced.” (CEQA Guidelines § 15002(a)(2).) If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has “eliminated or substantially lessened all significant effects on the environment where feasible” and that any unavoidable significant effects on the environment are “acceptable due to overriding concerns” specified in CEQA section 21081. (CEQA Guidelines § 15092(b)(2)(A–B).)

While the courts review an EIR using an “abuse of discretion” standard, “the reviewing court is not to ‘uncritically rely on every study or analysis presented by a project proponent in support of its position.’ A ‘clearly inadequate or unsupported study is entitled to no judicial deference.’” (*Berkeley Jets, supra*, 91 Cal. App. 4th 1344, 1355 [emphasis added, quoting *Laurel Heights*, 47 Cal. 3d at 391, 409 fn. 12]). Drawing this line and determining whether the EIR complies with CEQA’s information disclosure requirements presents a question of law subject to independent review by the courts. (*Sierra Club v. Cnty. of Fresno* (2018) 6 Cal. 5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal. App. 4th 48, 102, 131.) As the court stated in *Berkeley Jets, supra*, 91 Cal. App. 4th at 1355:

A prejudicial abuse of discretion occurs “if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process.

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. The EIR’s function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. (*Communities for a Better Environment v. Richmond* (2010) 184 Cal. App. 4th 70, 80 [quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 449–450].)

B. CEQA Background on Historic and Cultural Resources

Historic resources are given special recognition under CEQA. See *Friends of Sierra Madre v City of Sierra Madre* (2001) 25 C4th 165, 186; *Citizens for a Sustainable Treasure Island v City & County of San Francisco* (2014) 227 CA4th 1036, 1065. Under CEQA, objects of historic significance fall within the definition of the environment that can be affected by a proposed project. Pub Res C §21060.5. Historic resources that are subject to CEQA's requirements are defined by statute, and significant adverse impacts on historic resources are classified as significant environmental impacts. (Pub Res C §21084.1.) .

Architectural and historic resource impacts can be significant impacts that must be studied under CEQA Guidelines App. G. Under Pub. Res. Code § 21084.1, a project may have a significant effect on the environment if it causes a substantial adverse change in the significance of a historical resource. The fact a resource is not listed in a state or local register or identified in a survey does not preclude a lead agency from determining a resource is historically significant. *See* CEQA Guidelines § 15064.5(a)(4). A historical resource is “materially impaired when a project ... [d]emolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion” as a state or local historic resource. (*Id.*, subd. (b)(2)(C).) This is significant under CEQA. (*See e.g.*, Pub. Res. Code § 15064.5(b); *Ocean View Estates v. Montecito Water Dist.* (2004) 116 Cal.App.4th 396, 401; *Quail Botanic Gardens v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1603-1605.)

C. City of Escondido Municipal Code Sec. 33-803 Procedure for Issuance of Nonemergency Demolition Permit

Having made a preliminary finding that the building in question is a significant historical resource, the City must, according to Article 40 of the Zoning Ordinance governing Historical Resources under Sec. 33-803 of the Escondido Municipal Code (“EMC”) provide evidence of the satisfaction of the following requirements to the director of community development or designee:

- (1) Advertisement of the resource’s availability in at least one (1) local newspaper and the San Diego Daily Transcript, published for a minimum period of two (2) weeks prior to the HPC public hearing and/or city council public hearing;
- (2) Research into the feasibility of relocating a significant resource within the community including a licensed contractor’s bid for the cost of moving the resource. For structures the research shall include cost of improving the structure to meet relevant building code standards;
 - (A) In the case of a demolition application involving an income-producing property, whether the owner can obtain a reasonable return from the property without the granting of a demolition permit.

- (c) Findings. The city council may approve a demolition request upon making finding number 1, 4, and 5, and either number 2 or 3:
- (1) That the City of Escondido’s inventory of significant historical resources is not diminished by the demolition of the subject resource, and that there remains in the community a like resource, i.e., use, site, architectural style, or example of an architect’s work;
 - (2) That all feasible economic and physical alternatives to demolition have been evaluated, and that the applicant has shown that there is no alternative left to pursue, other than demolition;
 - (3) That the continued existence of the historical resource is detrimental to the public health, safety and welfare;
 - (4) If the property is approved for demolition, the Historical Society and/or other appropriate historic agency has access to the building to retrieve any historic material, and to provide photo documentation of the resources conducted according to Historic American Building Survey (HABS) specifications;
 - (5) The applicant shall have, or will have a plot plan or development plan approved by the city prior issuance of a demolition permit.
1. *The City Has Not Certified the Final EIR and Recommendation or Approval of the Demolition Permit is Premature*

If agency approval is discretionary rather than ministerial, evaluation of environmental impacts is a necessary condition precedent prior to granting a permit. Cal. Pub. Res. Code. § 21080(a). To determine whether an agency action is discretionary or ministerial, courts apply a functional test that examines "whether the agency has the power to shape the project in ways that are responsive to environmental concerns." (*Friends of Juana Briones House v. City of Palo Alto* (2010) 190 Cal. App. 4th 286, 302.) An approval is discretionary if the agency has authority to modify the project or deny approval for environmental reasons; it is ministerial if the applicant can legally compel the agency to approve it without changes to mitigate its impacts. *McCorkle Eastside*

Neighborhood Group v. City of St. Helena (2018) 31 Cal. App. 5th 80, 89; *Friends of Juana Briones House* at 302.

Here, the City has authority to modify or deny approval of the demolition permit, thus issuance of a permit is subject to review under the requirements of CEQA. The proposed demolition of the 121-141 N. Fig. Street structure is also part of the Project itself and cannot be evaluated apart from consideration of all the issues contained in the Project's Draft EIR, as well as those issues bearing on any potential demolition. The City cannot separately issue or recommend a demolition permit for a historical structure for a project before it has considered all of the project's environmental impacts and certified the EIR. Any hearing for issuance of a demolition permit of the 121-141 N. Fig. Street structure puts the cart before the horse—only the Draft EIR for the Project has been circulated for comment and the City has not certified a Final EIR.

Importantly, the Historic Preservation Commission's July 16, 2020 Agenda for Item No.: H.2 considering the demolition permit does not meaningfully address the fact that the Project DEIR considers alternatives to demolition such as preservation and relocation—and the current analysis is not final. (Ex. A, DEIR, pp. 7-1~7-18.) The Project may yet be modified or changes may be made in response to public comments before the Final EIR is certified and a Notice of Determination issues.

The Commission needs to delay its recommendation to the City Council until after the Final EIR for the Project is certified.

2. *The Commission Relies on Information Provided in the Draft EIR Which is Not Supported by Substantial Evidence*

The fact that the Commission takes up this agenda item now, instead of waiting until the certification of the Final EIR for the Project raises another error. The Draft EIR's analysis of culultural resources, specficially the demolition of the 121-141 N. Fig. structure is not supported by sunsbstantial evidence as outlined in Commenters previous comments to the City. (Ex. B, Southwest Carpenters' Comment Letter, pp. 10-11.)

The DEIR identifies the 121-141 N. Fig building as a historic building eligible for designation under the California Register of Historical Resources, Criterion 3.¹ Hence, there is a potential for a significant impact identified in the DEIR as Impact CR-1. (DEIR, p. 4.2-25.) As stated in the DEIR, the 121-141 N. Fig building was designed by Russell Forester, a recognized architect, is a good example of the International Style, and it has not been modified since completion in 1965. (DEIR, p. 4.2-25.)

The DEIR concludes that mitigation measure M-CR-1 is required, calling for documentation of the structure prior to demolition—but the DEIR fails to adequately analyze alternatives such as preservation or relocation in its analysis. The DEIR concludes that removal/demolition of the structure is required but fails to base that conclusion on substantial evidence. The DEIR refers to Chapter 7, or its Alternatives analysis, for further discussion of the issue. Yet this analysis lacks any discussion why demolition and removal of the structure would be required to preserve the desired housing density, instead of relocation or preservation. The DEIR should include a discussion based upon substantial evidence relating to why a marginally reduced footprint alternative that retains the 121-141 N. Fig structure is infeasible, or why relocation is infeasible or undesirable. There is no such factual discussion in the DEIR, only conclusory statements. The DEIR and the Commission’s Staff Report also acknowledges that relocation is a possibility without adequately exploring the execution of any relocation plan.

Moreover, the DEIR’s conclusion that implementation of mitigation measure M-CR-1, which concludes that “preserving the historical record of the resource through research and documentation consistent with National Parks Service Guidelines for Historical Buildings” would mitigate impacts to less than significant is unsupported by substantial evidence. The DEIR itself concludes that the 121-141 N. Fig building is a historic building eligible for designation under the California Register of Historical Resources, Criterion 3.

As the National Parks Service Guidelines for Historical Guidelines notes:

Important historic properties cannot be replaced if they are destroyed. Preservation planning provides for conservative use of these properties, preserving them in place

¹ Criterion 3 for eligibility on California Register of Historical Resources: “Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.” https://ohp.parks.ca.gov/?page_id=21238.

and avoiding harm when possible and altering or destroying properties only when necessary.²

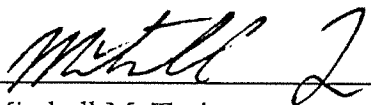
Preservation in place is “generally preferred: and “only when a decision is made that a particular property will not be preserved in place, . . . [then] the need for documentation must then be considered.”³ Since the National Parks Service Guidelines express a preference for preservation over destruction, the DEIR’s conclusion that the Project will not have a significant impact on cultural resources is unsupported. The Guidelines clearly state that a need for documentation should only be considered when preservation or relocation have been exhausted or excluded as possibilities.

Again, no such final decision has been rendered that the building cannot be preserved or relocated, nor are the DEIR’s preliminary comments or analysis supported by substantial evidence, and the Commission may not rely upon them in making any recommendation.

V. CONCLUSION

Commenters request that the City reconsider recommendation or issuance of a demolition permit after such time as the Project’s Final EIR has been certified.

Sincerely,



Mitchell M. Tsai
Attorneys for Southwest Regional
Council of Carpenters

Attached:

Draft Environmental Impact Report for the Palomar Heights Project (Ex. A); and

² The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation: Standards, *available at* https://www.nps.gov/history/local-law/arch_stnds_1.htm

³ The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation: Note on Documentation and Treatment of Historic Properties, *available at* https://www.nps.gov/history/local-law/arch_stnds_4_2.htm

Southwest Regional Council of Carpenters May 4, 2020 Comment Letter on the Draft
Environmental Impact Report for the Palomar Heights Project (Ex. B).

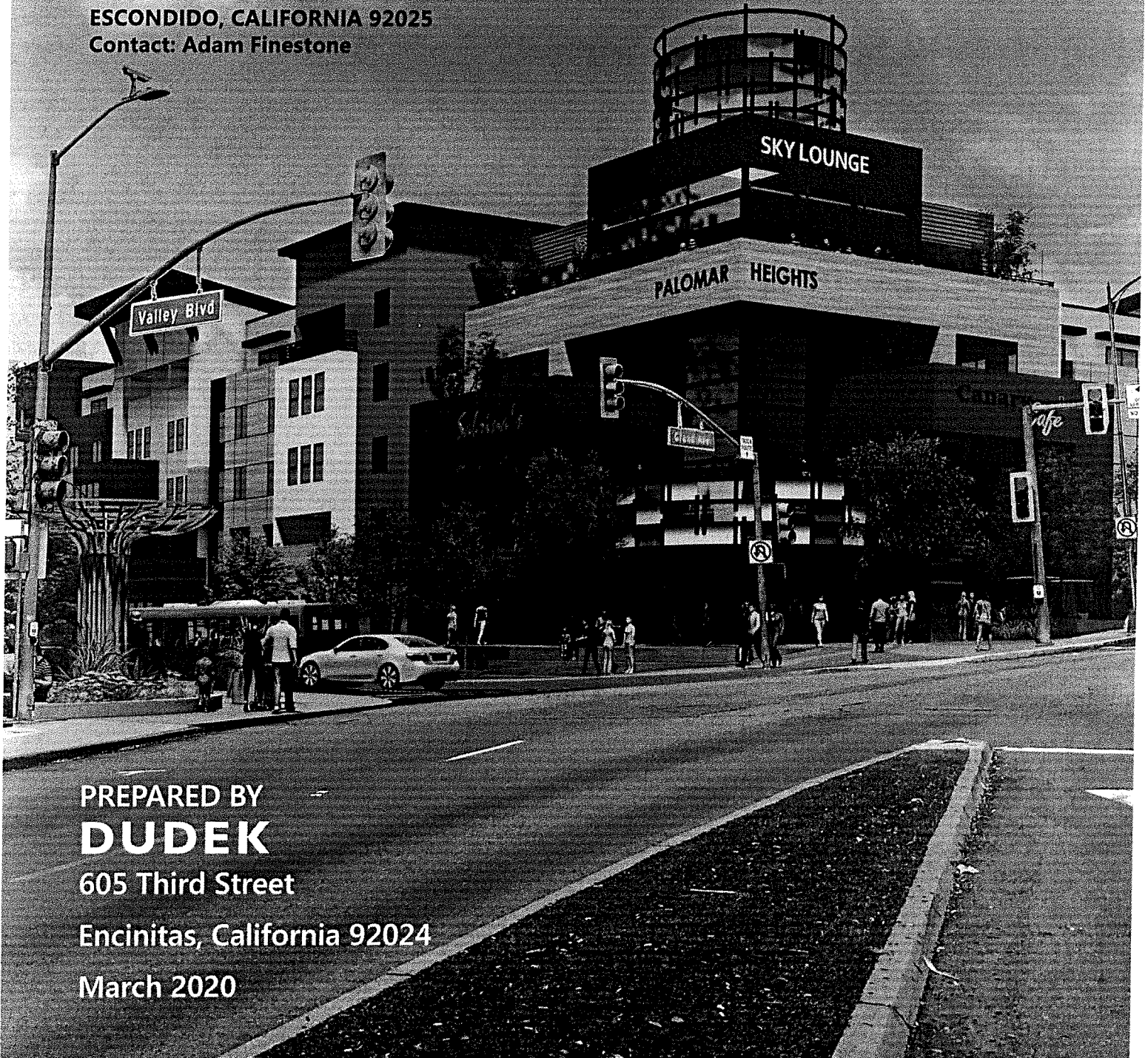
EXHIBIT A

Draft Environmental Impact Report

PALOMAR HEIGHTS



CITY OF ESCONDIDO
PLANNING DIVISION
201 N. BROADWAY
ESCONDIDO, CALIFORNIA 92025
Contact: Adam Finestone



PREPARED BY
DUDEK

605 Third Street

Encinitas, California 92024

March 2020

Adam Finestone

From: Sheikh, Faisal <Faisal.Sheikh@law.nyls.edu>
Sent: Wednesday, July 22, 2020 3:36 PM
To: Palomar Heights Project; Lori Pike
Cc: dulce.mchavira@gmail.com
Subject: [EXT] Re: Support for Palomar Heights - Please send letter to City of Escondido Council Members!

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Honorable Mayor Paul McNamara
Deputy Mayor Consuelo Martinez
Council Member Olga Diaz
Council Member Michael Morasco
City of Escondido
City Hall, Second Floor
201 North Broadway
Escondido, CA 92025

RE: Support for Palomar Heights

Dear Honorable Mayor and Council members:

The City of Escondido has a tremendous opportunity to further its mission of planning for more vitality and vibrancy in the downtown area by approving the Palomar Heights project. Today, I would like to pledge my support for Palomar Heights.

The current design features 510 residential units, 10,000 square feet of commercial space and numerous community and resident benefits. Palomar Heights has been carefully crafted to complement businesses and generate the much-needed foot traffic to our downtown corridor, helping our businesses to thrive. In this unpredictable phase all of us are uncertain of what the future holds. The time is now to be united in our support for operators like Palomar Heights who are willing to invest in our city so we can flourish for years to come.

This project would significantly contribute to our city's housing supply. From age-targeted senior housing, to for-sale townhomes and apartments for rent Palomar Heights will invite a diverse population into our community to enliven downtown throughout the day and into the night.

This project would be a welcomed addition to our downtown and I encourage you to join me in support.

Thank you.

Faisal Sheikh

Cell: +1 619 635 4133

Confidentiality Notice:

Email is covered by the Electronics Privacy Act, 18 U.S.C. Sections 2510-2521, and is legally privileged. This email may contain confidential and privileged material for the sole use of the intended recipient(s) to which it is addressed and may contain information which is privileged, confidential and exempt from disclosure under law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please telephone us immediately and please delete this communication. Thank you for your cooperation.

cc: Ms. Dulce Chavira

Adam Finestone

Sent: Friday, July 24, 2020 1:15 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

Sent: Tuesday, July 28, 2020 7:49 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

Sent: Saturday, August 1, 2020 3:21 AM
To: Palomar Heights Project
Subject: [EXT] | Support Palomar Hieghts

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

From: joseph holtz <drjoeh@gmail.com>
Sent: Monday, July 27, 2020 2:35 PM
To: Planning
Subject: [EXT] Medical office building on Fig St.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Hello,

The purpose of this email is to give my opinion about a proposal to to give a historical designation to an old medical building on Fig St. that would normally be torn down to make room for the new residential complex on the site of the old Palomar Hospital. I am against saving this building. The time and money necessary would be better spent on something truly historical and deserving of the designation.

Thank You and best regards,
Joseph Holtz DDS

Adam Finestone

Sent: Monday, August 3, 2020 10:24 AM
To: Palomar Heights Project
Subject: [EXT] | Support Palomar Heights

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

From: pgourdie@cslstaffing.com
Sent: Tuesday, August 4, 2020 5:07 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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Adam Finestone

Sent: Thursday, August 6, 2020 6:11 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

Sent: Monday, August 10, 2020 10:30 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

Sent: Saturday, August 15, 2020 10:18 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

Sent: Wednesday, August 19, 2020 3:49 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

Sent: Saturday, August 22, 2020 11:55 AM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Heights

CAUTION : This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Email frank.miller2010@hotmail.com

Meeting type Planning Commission

Meeting Date 8/25/2020

Planning Case # _____

Subject READ OUT LOUD

Position In Opposition

First and Last Name Frank Miller

Street Address 609 E, 5th Avenue **City** Escondido **Zip** 92025

Comments:

I own a home in Old Escondido, in District 3. I recently saw a photo of the proposed senior and affordable housing for the old city hall/hospital site (Grand and Valley Boulevard) and objections to the proposal by local architect Ken Erickson. The photo showed a jumble of concrete boxes with a large twisted metal object adjacent. I was aghast that this historic site could be so thoughtlessly spoiled. The photo looked like a strip mall gone terribly wrong.

As you know, the site was formerly occupied by the city hall (1938) and fire and police stations (1940) built with adobe walls and tile roofs. The architectural style was a modern take on the Old California hacienda style and was completely appropriate to the era and the site. At the top of the hill was the original low-rise, ranch-style hospital built in 1950. These structures were Escondido's crown jewels, and sadly they are gone. The site itself needs to be respected and some memory of these buildings and of our Rincoln del Diablo heritage preserved.

I recommend starting over on the design of this site.

Thank you.

Adam Finestone

Sent: Sunday, August 30, 2020 9:09 AM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

Sent: Wednesday, August 26, 2020 1:05 AM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Heights

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Adam Finestone

Sent: Wednesday, August 26, 2020 1:05 AM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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Adam Finestone

Sent: Wednesday, September 2, 2020 9:21 AM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Heights

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.



North County Group
Sierra Club San Diego
P.O. Box 2141
Escondido, CA 92033

September 4, 2020

Chair and Planning Commission Members
Escondido Planning Commission
Via Email

RE: Request to DENY Specific Plan amendments and Palomar Heights proposal; recommend that the City Council convey a recommendation to the Palomar Hospital Board to re-issue a Request for Proposals for the Old Palomar Hospital site.

Dear Chair and Planning Commission members,

Sierra Club North County Group (NCG) represents 2,600 members in inland North San Diego County and our Chapter has 15,000 members in the County. NCG has a long-standing interest in this issue and has been very involved in efforts to secure the kind of high-density, transit-oriented infill project the city needs. NCG has been an active participant in the Palomar Heights environmental review and we have attached our comment letters on the Notice of Preparation and the Draft Environmental Impact Report.

We strongly support transit-oriented development projects and the old hospital site is probably the best location in the entire city for a signature, quality, high-density project offering a range of housing options. The site is currently zoned for 1,350 DU. The Integral proposal includes only 510 DU. It includes no affordable units. This is a transportation supported development location that should not be squandered on an ordinary townhome product like the proposed Palomar Heights.

1. Any development at this site should be high-density closer to the planned zoning.

This site is perfect for higher density development. Just some of the reasons include:

- It has high density zoning already.
- It will not gentrify a neighborhood.
- It has close proximity to services, downtown Escondido, and transit.
- Taller buildings should be acceptable there since site already has high-rise buildings.
- It is the signature, cornerstone location in downtown Escondido.

We understand that staff has suggested that 1,500 DU is too high logistically, however, a future project should get much closer to this density. We recommend no fewer than 900-1,000 DU minimum density.

2. Any exemption to the Community Facilities District (CFD) fees is inappropriate. Development must get used to paying its own way.

We understand Integral is resisting the necessary Community Facilities District (CFD) fees appropriate to its project. CFDs are important because they ensure that developer profits are not subsidized by future generations of taxpayers. While we understand developers are not used to this, the time has come for them to pay the true cost of their projects. To more properly reflect the cost of development, Escondido City Council necessarily adopted a Community Facilities District rules for significant new development in the city. Appropriate development in the city should be required to pay these fees. It is the cost of doing business.

The I-didn't-know-about-it defense raised at the August 26th, 2020 meeting by Integral is no-excuse. Sierra Club NCG, even though we are not a developer with a major project underway in the city, has known and followed this issue since January. To blame their lack of awareness on staff or COVID in no defense. Decision-makers should not give Integral a pass on this issue.

Last, our experts have advised us that any reduction or exemption to fees will constitute a public subsidy under the law and additional requirements must be applied.

3. Any development in this location must include affordable housing.

This project has an opportunity to fulfill both above moderate (market rate), work force, and affordable categories needs by leveraging as much of the current density and taking advantage of incentives such as the state's density bonus program (up to 35% additional density and other incentives if there is provision of deed-restricted affordable units).

We need to expand and diversify our housing options to include designated affordable housing and workforce market rate housing affordable to our professional families, teachers, public safety, health care, construction labor force, and other working families.

4. Any development here should integrate walkable/bikeable and transit use and GHG reduction measures into its design.

A primary feature of this location is its location along a major transportation corridor, next to downtown, two blocks from the Escondido Bike Trail, and one mile from a major transit stop. To meet climate goals, new housing like this should incorporate easy access to transportation options. Innovative car sharing, cost of use parking, and other car commuting should be part of the proposal. In addition to major environmental benefits, locating housing closer to jobs also

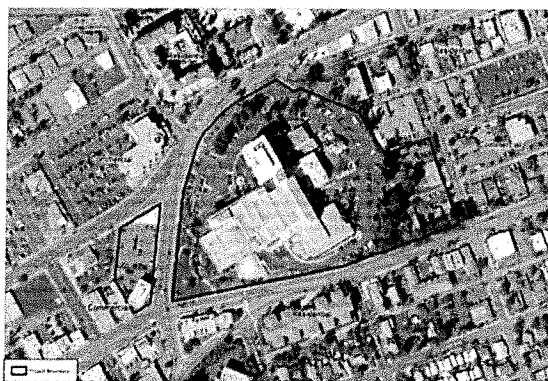


Figure 1 Location on the transportation corridor

lowers the transportation burden for households. In Escondido, transportation costs range from 22% of the household budget.

Further, the project should include many of the GHG reducing measures under discussion for the new Escondido Climate Action Plan where appropriate.

5. Integral has failed to propose a project that meets the needs of the city. It is time to move on.

Integral has had almost two years to bring a project to the city that meets its needs and has failed to do so. As a community we need to move on to find a developer who can propose a project that meets the community needs.

In so many ways, Escondido and the world have changed since the RFP was initially awarded. The region and the city need a partner that reflects those needs and changes. We have seen the 'highest-and-best' proposal from Integral of what their vision for the site is, and it is not the vision of our members or our community.

6. The project should be denied, a true objective appraisal be conducted, and the Request for Proposals re-issued.

We join others in wanting housing and progress on this site and believe the best and the most expedient way to sell the property and secure a quality project is to re-open the option to compete for this site to other development interests. We ask the Planning Commission to offer that opinion to the City Council for its consideration.

Sierra Club NCG is a strong supporter of an appropriate, higher-density urban infill project in this signature location in the heart of Escondido. We know we must densify our urban and transportation corridors if we are to effectively address the climate crisis. Further, we must provide housing products for a range of income levels.

7. Site should be integrated into the East Valley Specific Plan Initiative

The target area due east of the old hospital site is currently undergoing re-visioning by the city. This is an exciting development that any project at the old hospital site should anchor. Sierra Club NCG is developing comments separately on that effort, but the vision should be integrated.

In conclusion, there are new realities our city and world face now and there is new interest in our city. We should ensure that we capitalize on these changing dynamics. This project does not address or respond to the new realities of our city and we ask that you recommend against it.

Thank you for the opportunity to comment on this important issue.

Sincerely,

Suzi Sandora

Chair,
Sierra Club NCG, Executive Committee

Saura Hunter

Chair,
Sierra Club NCG Conservation Committee

cc.

Mike Strong, Escondido Community Development Director
Mayor and City Council
Palomar Hospital Board

Adam Finestone

From: Mike Strong
Sent: Friday, September 4, 2020 9:20 AM
To: Julie Procopio; Jay Petrek; Adam Finestone
Subject: Fwd: [EXT] Correction of the record related to implications made about Services CFD

Sent from my iPhone

Begin forwarded message:

From: "earthlover@sbcglobal.net" <earthlover@sbcglobal.net>
Date: September 4, 2020 at 8:49:59 AM PDT
To: Paul McNamara <pmcnamara@escondido.org>, Consuelo Martinez <cmartinez@escondido.org>, Olga Diaz <Odiaz@escondido.org>, Michael Morasco <Mmorasco@escondido.org>
Cc: Jeffrey Epp <Jepp@escondido.org>, Mike Strong <mstrong@escondido.org>, Julie Procopio <jprocopio@escondido.org>
Subject: [EXT] Correction of the record related to implications made about Services CFD

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender email address AND know the content is safe.

Dear Mayor and City Councilmembers,

I have just had a chance to review the public comments from representative of Integral at the August 26th Council meeting related to Palomar Heights.

I am compelled to state a few things for the record and object to the implication by Integral that the decision on the Services CFD was done by stealth or surprise.

1. I'm here to validate personally that the CFD vote **did not** come out of thin air and, had Integral been paying attention to the city, it would know this has been under analysis, discussion and development for over a year!
2. I'm just a run-of-the-mill, lay-about general Sierra Club member (not even a developer) and I've known about it since January.
3. In fact, along with other organizations we have had a meeting and calls with your staff, all pre-COVID, to discuss and understand the CFD proposals.
4. This issue has been under development since June, 2019 and was discussed at the budget meeting of that year.
5. If Integral paid any attention, there are lots of issues and opportunities that they should know about, but apparently they can't be bothered.
6. That Integral does not follow city activities or care or invest in its challenges and solutions, is more evidence that this developer is not the one for us.

We state, again, this is the wrong project, and the wrong company, to develop this singular and important site for our city.

Sincerely
Laura Hunter

“May your choices reflect your hopes, not your fears.”
--Nelson Mandela

Adam Finestone

From: info@domainworld.com
Sent: Saturday, September 5, 2020 6:35 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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Dear Mayor McNamara and City Council, I have taken the time today to send you this letter of support for Palomar Heights. Palomar Heights is vital to the revitalization of downtown Escondido. We have seen so many exciting changes in the last few years and we need to continue the progress, the time is now! Please consider my support in your approval of the Palomar Heights project as it will offer new residents a home in the downtown area, provide new retail and restaurant opportunities and will significantly increase foot traffic to help surrounding businesses thrive. Please join me in support of Palomar Heights.

Adam Finestone

From: info@domainworld.com
Sent: Sunday, September 6, 2020 4:06 AM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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Adam Finestone

From: info@domainworld.com
Sent: Sunday, September 6, 2020 8:13 AM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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Adam Finestone

From: info@domainworld.com
Sent: Sunday, September 6, 2020 3:14 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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Adam Finestone

Sent: Sunday, September 6, 2020 3:45 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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Adam Finestone

From: info@domainworld.com
Sent: Sunday, September 6, 2020 5:00 PM
To: Palomar Heights Project
Subject: [EXT] I Support Palomar Hieghts

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September 8, 2020 PC Meeting

Email hipmktgchic@gmail.com

Meeting type Planning Commission

Meeting Date 9/8/2020

Planning Case # SUB 18-0011, PHG 18-0049, ENV 18-0009

Subject Parking impact of the redevelopment of former Palomar Hospital Downtown Campus and surrounding property

Position In Opposition

First and Last Name CAROL A LORD

Street Address 16955 OLD ESPOLA ROAD **City** Poway **State** CA **Zip** 92064

Comments I oppose any reduction in parking spaces for this project. We own the property at 706 E. Ohio and already there will be an impact with parking of cars that won't fit on the proposed property. If any reduction of parking spaces for this project is approved then I propose that you make the first two blocks of E. Ohio Street (700 block) resident only parking for the residents on East Ohio Street. Thank you.



Palomar Heights

Palomar Health Downtown Campus

September 9, 2020

Mr. Adam Finestone
Principal Planner
City of Escondido

Adam,

I've reviewed the applicant's 5th submittal. As in the case of the previous four, the necessary changes for the project to comply with the Downtown Specific Plan (DTSP) have not been made. My past comments, noted in detail in my October 2, 2019 letter, are still relevant. The proposed site development concept simply does not meet the standards and fundamental goals of the DTSP.

In summary, after five submittals, where planning, grading and design changes have not been made to bring the project into conformance with the DTSP, this project should not go forward, let alone be approved.

This is an extraordinary site that deserves a worthy project. What's proposed is ordinary at most and can be found on any flat site in any Southern California city.

Respectfully,
Ken Erickson, Architect

Palomar Heights
Palomar Health Downtown Campus

September 11, 2020

Request to Deny the Palomar Heights Project

Dear Chairman Weiler and Planning Commission members,

The approved Downtown Specific Plan (DTSP) was developed over an eight-year period and adopted in August 2013. During this time, residents, downtown business owners, Downtown Business Association, City staff, Planning Commissions and City Councils gave input, discussed and debated the proposed specific plan with the goal of updating the vision for Downtown.

This effort not only recognized and respected the historic character of downtown but also considered the future, envisioning an attractive, pedestrian friendly, economically vital city center providing social, cultural and residential focus. To ensure all Downtown development fulfills the vision of the DTSP, as the governing document, proposed projects are to be reviewed and assessed for compliance by its principles and guidelines.

I have reviewed the five submittals with observations and comments based on the approved DTSP. More detailed observations are on the second page.

General Observations:

The proposed project, employs site and grading designs that ignore existing site topography and the surrounding context resulting in significant grade change along street edges and public sidewalks. This approach, along with the fact that Buildings 1, 18, 23 & 24 propose parking garages on the ground floor level, isolates the project physically, visually and psychologically from the surrounding neighborhoods and does not provide the pedestrian environment which is a central goal of the DTSP.

Conclusions:

- This site is a once-in-a-generation opportunity. Any project built here will likely remain for many years and will, for better or worse, impact Downtown and Escondido.
- The project as proposed is a forced fit. It is a suburban solution that can be found on any flat site, anywhere. It does not add to the character, scale and established walkable rhythm of downtown. It is, in fact, the antithesis of what was envisioned by the Downtown Specific Plan.
- Every building matters. Each one (good or bad) is part of the visual fabric that expresses Escondido's character and values. We should not accept, just for the sake of adding more housing, compromised site planning, grading design and architecture.
- We live in an age of indistinguishable architecture that erodes the differences and distinctiveness of cities and neighborhoods. This site, our historic downtown and Escondido residents deserve a project designed specifically for this site, in a unique neighborhood and city.
- We have a thoughtful Downtown Specific Plan that, by employing time tested planning principles, honors the scale and rhythm of the historic character of downtown, yet embraces this current place in time and the future.
- Successful planning and architecture must embrace and react to the nature of its site and surrounding context. It is important to note that the proposed development will require a Specific Plan Amendment, General Plan Amendment, and Grading Exemptions.

This site, Downtown and the residents of Escondido, deserve an extraordinary project that contributes to the character, vitality and, Pride in Place of Escondido. What has been proposed is ordinary at best.

Respectfully,



Ken Erickson, Architect

September 11, 2020

Detailed Observations

Apartment Buildings:

Building One

- Along East Valley Parkway, there are retaining walls 2-21' in height and with slope banks resulting in the ground-floor garage being an average of 11' above the adjacent sidewalk. The first floor of residential is approx. 9-10' above that. Distances from building to street and sidewalk are approx. 20' and 35'.

Building 18

- Limited grade elevation information was provided, but based on section B, it appears at one point the ground-floor (garage level) is 10 -12' below Grand Avenue with the face of building 8-10' away from a retaining wall. The first floor of residential is approx. 9-10' above that.

Building 23

- Limited grade elevation information was provided, but it appears the ground-floor (garage level) is 5 - 10' above Valley Boulevard. The first floor residential is approx. 9-10' above that.
- The intersection of Grand Ave. & Valley Blvd. is one of the most important in the Downtown. What is built here will be seen on Grand Avenue from blocks away and contribute to the visual experience.

Building 24: Senior Apartments :

- The first floor of residential varies in height from 10-12' above the adjacent sidewalk
- The small lobby has solid walls with only one door to Valley Boulevard. This will appear as a secondary entrance and does not contribute to the activation of the pedestrian experience.
- On the front elevation, several openings for garage ventilation are shown. With the garage floor below the sidewalk level, there will be views into the parking area, which is strongly discouraged in the DTSP.

The "Villas" and "Rowhomes":

- The Villas and Rowhomes are automobile-orientated suburban solutions. With surface parking, drive aisles and driveways, these buildings (the "Villas" in particular) will be surrounded by large areas of asphalt.
- The majority of Villas have unit entries located on drive aisles where cars access garages. The landscaping in this area amount to small pockets every 20'. This space, with 3-story buildings on either side, is essentially an alley, which does not provide pedestrian oriented entries.
- Adjacent to Fig Street, with the combination of retaining walls and slope banks, the building ground-floors range from 11- 20' above the adjacent sidewalk.
- Adjacent to Grand Avenue, some buildings are approx. 7' away from retaining walls and as much as 8' below street level.

GREG DANSKIN ARCHITECT

September 11, 2020

Dear Honorable Commissioners,

A few times in the life of a city, the people who call that place home are presented with an opportunity that has the potential to either elevate or diminish the experience of living in that city. Creating an inviting urban environment that welcomes visitors and provides a strong Character of Place and Community is not easy. Even so, it is worthwhile to expend the required effort to achieve success.

The Palomar Heights Project as conceived does not rise to the occasion, when it could in fact create a great civic experience at what is arguably one of the most critical locations in Escondido. I have written elsewhere regarding the project's falling short of the vision set forth in the Escondido Downtown Specific Plan, and the inability of the building types and site planning proposed to achieve that level of quality appropriate to the place.

As we have all seen, one of the most critical components to a successful urban environment is a strong pedestrian network of connections. This project lacks that, and in fact contrasts that by walling off the future residents from the rest of the city, giving little physical or even adequate visual connection to Escondido's core downtown and surrounding areas.

One of the greatest assets of the site is the topography. The design reveals that the proposed building types are not suited to this location, but to a relatively flat suburban plat, evidenced by the number and height of the retaining walls, magnitude of vehicular drives, and contorted pedestrian movements. The elevated nature of the site ought to be celebrated and used to the advantage it provides. Instead, the interior is left to row homes that offer the residents no view to anything but the next row home balcony. The term 'Villa' is a misnomer, as a true villa has a very different nature. All put together, the interior has more the sense of a large hotel with no sense of community. The name given to a thing ought to speak to the reality of the thing, so to an observation: the name 'Heights' may have been chosen to reflect the elevation of the project (which is then disguised by the massing of the buildings), but is it associated with a vibrant urban community experience, or will it be describing an area of Downtown Escondido pretending to be more than it is?

As a matter of being able to adequately study the proposal, a physical model of sufficient scale ought to be required as a primary component of the submittal process, otherwise the space and its relationship to the surrounding area cannot be adequately ascertained, even from well-done renderings.

Because this property is a public asset, because there is a responsibility to build the most well-considered project in that location, and also because this project will likely be there for more than 50 years, it is important to make sure that the critical urban issues are addressed in the best way possible, that it is a true contribution to the community, and that what is ultimately built does not diminish Escondido, but in fact elevates the urban environment it becomes a part of.

Respectfully Submitted,

Greg Danskin
Architect