

Revealing Escondido Creek

A Vision Plan for the City of Escondido

Cover/Back Photo:

Escondido Creek at Elfin Forest Recreational Reserve
Source: Revealing Escondido Creek Team, Spring 2010

REVEALING ESCONDIDO CREEK

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Project Overview

This project has three main areas of significance to the city: environmental, socio-cultural and economic. The environmental goal of this project is to reveal the Escondido Creek as more than a stormwater conveyance system. This vision plan will propose ways to connect neighborhoods to one another and the larger region and enable the community to travel safely along the length of the city. The plan also proposes ways that the trail can take advantage of its alignment through the city to link neighborhoods to the city core and residents to destinations. This vision plan symbolizes an opportunity for the city to unite neighborhoods divided for decades by the channel, breathe new life into local economies and reclaim portions of the creek in the watershed.

Located in northern San Diego County, the Escondido Creek watershed stretches 28 miles from Lake Wohlford to the San Elijo Lagoon at the Pacific Ocean. The city of Escondido occupies a broad central plain within the watershed and is bisected by the creek. In the late 1990s, the Escondido Creek Trail, was installed in the right-of-way along the Escondido Creek. This project is focused on the areas surrounding the creek and trail that are within city limits.

The goals of this project are to foster healthy neighborhoods, healthy individuals, a healthy economy and a healthy environment. These goals are interrelated and mutually beneficial in that neighborhoods that connect residents to work, home and shopping without the need for an automobile trip can help promote healthier citizens and stimulate the local economy.

Through meetings with stakeholders, community

events, surveys, observations and interviews the team has identified six major areas of concern: user safety; access; limited trail use and amenities; aesthetics; environmental quality; and limited resources. This project was initiated by actions taken by residents, conservation organizations and municipal agencies over the course of many years to highlight and address these issues. The design team is indebted to these citizens and organizations for their assistance and ongoing efforts.

This vision plan is intended to serve as an adaptable document that outlines both short and long-term goals. Many suggestions outlined could be implemented immediately and with relatively low financial expenditures, while others are intended to serve as a catalyst for community wide planning and development discussions.

Revealing Escondido Creek outlines a future in which the Escondido Creek Trail revitalizes Escondido and becomes a linear creek-walk park providing residents and visitors with an opportunity to engage the creek in both its wild and urban typologies. The vision is of a park extending the length of the creek boundaries, connecting neighborhoods to the downtown, schools to parks, and communities to creek-oriented destinations via safe and attractive trails. The Escondido Creekwalk will incorporate the existing Escondido Creek Trail and proposes creating a linear system of park sites and extensions to the existing trail. This vision plan was developed through data collection and design process for the purpose of assisting the community and municipality with future planning decisions.

This plan reflects the values of the project goal. These values are: Social Equity & Environmental Justice; Community Engagement; Environmental Responsibility; and Adaptability. The design team attempted to increase access and incorporate the ideas of all members of the community. Substantial efforts were made to reach out to all interested individuals in order that they might participate. The design team also believes the benefits of environmental stewardship can extend beyond habitat and wildlife and improve human environments for future Escondidans. Finally, providing design solutions that are flexible in their implementation and can be adapted to meet the changing needs of the community will guarantee the success of the project.

Project Context

The Escondido Creek valley and surrounding lands have been home to people for centuries and plays a colorful role in the history of California, notably as one of the first cities incorporated in San Diego County. The city is located in the middle of three basins in the Escondido Creek Watershed at an approximate elevation of 600 feet above sea level. The Escondido Creek originates in Bear Valley, east of the City of Escondido at an elevation of 2,250 feet. Intermittent flooding caused significant damage during the 20th Century, eventually resulting in channelization in the late 1960s because the city was built in the creek's floodplain.

The Escondido Creek Watershed historically drained intermittently to the Pacific Ocean at San Elijo Lagoon; however, due to urban development in the watershed, the lower two-thirds of Escondido Creek now experiences perennial flows (KTU&A, and Merkel & Associates 2002). The watershed has a mild

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Mediterranean climate, characterized by mild wet winters and warm, dry summers. This climate extends through three climate zones: maritime, coastal and transitional. In San Diego County, the months of heaviest precipitation are November through April, with an average precipitation of nine to fourteen inches annually (City of Escondido 2010). Escondido typically receives between ten and fifteen inches of rain annually (ECWRAS 2005). Due to its inland location, the City of Escondido tends to have warmer summers and wetter winters than the neighboring City of San Diego. The nearly year-round mild climate conditions of the City of Escondido make it an ideal location for the enjoyment of outdoor recreation and alternative transportation. The mild climate supports nearly year round trail use as few days are too rainy or too hot to be outside.

Only one reach of the Escondido Creek has been channelized, this portion is found within the City of Escondido. The channelized portion of the Escondido Creek consists of a concrete-lined trapezoid channel designed to accommodate the flows of a 100-year storm event. The channelized portion has led to drastic changes in the hydrologic processes of the Escondido Creek. As is the case throughout much of Southern California, the hydrologic system of the Escondido Creek has been modified through importation of water, channelization and impoundment. These modifications have made it possible for many people to live and work in the region, but have also had far reaching impacts on habitat, water quality and wildlife. The processes that have been altered or disrupted include the transportation of sediment by the creek through the length of the watershed, restrictions to the infiltration of groundwater within the watershed, the increased freshwater run-off due to urbanization of the watershed and water importation from the San

Luis Rey River and diversions at Lake Wohlford.

The Escondido Creek Watershed supports an abundance of native plant and wildlife species. Twenty-two types of native vegetation communities and 53 sensitive wildlife and plant species have been identified in the watershed (The San Elijo Lagoon Conservancy 2005). The plant communities within the watershed can be categorized into nine generalized vegetation communities. They include agriculture, grassland, meadow/seep/bog, non-native/disturbed/urban, riparian, scrub/chaparral, water, wetland, and woodland/forest types (SELC 2005).

According to the SANDAG 2009 population estimates, Escondido has a population of 144,831 people. The demographic of Escondido can be divided into two geographic areas: the relatively wealthy population, predominately non-Latino whites, is located at the peripheral hilly areas to the north, southeast, and southwest of the city, and the less affluent population is mainly concentrated centrally in the valley, downtown, and along the Escondido Creek area (SanGIS 2004). Population in areas within the city boundaries are moderately dense, while areas immediately adjacent city boundaries are sparsely populated. The highest population density is in the Mission Park area east of Broadway along the Escondido Creek. This area would especially stand to benefit from a revitalized Escondido Creek and Trail.

Issues impacting the health of the Escondido Creek are associated with the land uses in the watershed and the channelization of the creek. The Escondido Creek Watershed transects urban and rural land uses as it crosses the landscape

from interior North County San Diego to the Pacific Ocean. The major issues arising from these land uses are water quality, habitat fragmentation, erosion and sediment transport.

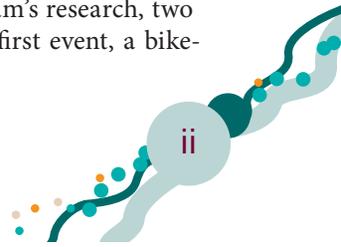
The Escondido Creek Trail

The Escondido Creek Trail connects the east side of the city to the west. However, the Civic Center Plaza Shopping Center which was built atop the Escondido Creek interrupts the trail connection. This creates a “Missing Link” in the center of Escondido where there is no connection between Broadway, east of Grape Day Park, and Quince Street near the Escondido Transit Center. Trail users are required to use major surface streets in order to connect between Quince Street and Broadway (Garrick 2009) forcing trail users into dangerous and unsafe traffic conditions.

Along the Escondido Creek Trail, intersections at which the trail crosses surface streets lack adequate crosswalks and safety measures. There are multiple intersections between surface streets and the trail without safe crosswalks and with traffic volumes between 10,000 to 20,000 cars per day (City of Escondido 2010).

Community Outreach

Community engagement in the process of developing this vision plan was a core value to the Revealing Escondido Creek design team and an integral component of the design process. To get a sense of the history of activism and concern for the creek, as well as to understand the work that had been done in the past, the design team held meetings with stakeholders. During the course of the design team’s research, two community events were held. The first event, a bike-



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walk survey of the creek was conducted in order for the community to explore the creek trail. The second community event was a design charrette facilitated by the design team for members of the community in order to discuss possible design solutions. In an attempt to gather quantifiable data on what the community would like to see incorporated into possible design solutions, the design team developed a community survey. Finally, in order to understand the ways that residents of the city use the trail, the design team conducted multiple observational studies and informal interviews. Community desires expressed at outreach events matched data collected through surveys and interviews with trail users. Eventually, all of this data lead the design team to appreciate that the community would like to see the Escondido Creek Trail become a safe, pleasant conduit through the city that addresses basic environmental concerns.

Design Framework

In order to fulfill the goals and objectives developed at the outset of the project, a framework of design criteria was constructed. The three elements of the design framework are Bridge, Collect and Discover. Bridge design elements connect community across the creek and the city, connect the public to the local ecology, and build economic connections by providing increased access to local businesses. Collect design elements address the gathering of people and/or resources. Discover design elements represent programming options and community or creek awareness features. This framework was used as a guide for design decisions. As site designs were developed, each solution was assessed to determine if the response met the criteria of the design framework—design solutions that did not meet the framework were not considered. Each of the three framework

elements include socio-cultural, environmental and economic design responses.

Site Selection

The design team reviewed the entire length of the creek path as it transected the city in order to generate a comprehensive list of possible design sites along the length of the creek. The design team approached the selection of design sites through a lengthy distillation process using both an analytical and an intuitive approach. Both of these methods generated a list of sites; from this list the team selected the eight design sites for the vision plan.

Distinctions between size and scope of the eight sites were made by categorizing the smaller, more near-term vision sites as Creekwalk Streetscapes and the larger, longer-term vision sites as Creekwalk Destinations. Creekwalk Streetscapes are relatively small in scale—roughly ½ acre or less—and located at intersections of the creek and a city street. Creekwalk Streetscape sites are envisioned to serve as “catalytic nodes”—locations in which a little energy and change can initiate a ripple effect transforming the Escondido Creek Trail and the community’s perception of the creek corridor.

Creekwalk Destinations are larger, multi-acre sites adjacent to the Escondido Creek and designed to be a comprehensive destination. Creekwalk Destinations propose the long-term goal of bringing the Escondido Creek Trail to the forefront of a revitalized landscape.

Eight distinct site typologies were selected in total;

four Streetscape sites and four Destination sites. The four Streetscape typologies selected for design by the team are: an intersection, a pedestrian bridge, a channel right of way, and a cul-de-sac. The four Destination typologies selected are: an urban site, a central district, an industrial crossroads, and a wild landscape. By choosing sites from the eight typologies, each of the design sites will provide examples of solutions that may be applied to other areas of the same typology within the city.

Focused Opportunities

Just as the eight design sites represent specific typologies, each site also focuses on a unique opportunity. These focused opportunities address specific issues and/or opportunities inherent to each of the eight sites. The purpose of distinguishing focused opportunities in the design response is to present an array of design ideas demonstrating how several solutions may work in concert to meet a specific issue. These proposed solutions may then be taken and applied to other sites; design ideas presented to address one focused opportunity at a site within the vision plan may have applicability to design challenges encountered at another site in the city. In this manner, the vision plan provides flexibility for its implementation. It is important to note opportunities abound at every site—though each site has a specific opportunity as the focus of the design response, no site is limited to a single opportunity.

Design Response – Creekwalk Streetscapes

Citrus Avenue is a representative example of a creek and street intersection located in a residential neighborhood of mostly single family homes. The Citrus Avenue intersection has some of the

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foundational amenities for pedestrians and cyclists, but is lacking in many of the most basic safety elements typically found at high volume pedestrian intersections. The goal of the Citrus Avenue site is to articulate simple, cost effective methods to create more user friendly and safer intersections of the creek path with the intersecting streets. The design response includes a range of solutions from small elements such as painting crosswalks and providing bike lane striping, to large scale improvements such as pedestrian activated traffic lights, police call boxes and the replacement of the existing chain link fence with more aesthetically pleasing fencing options.

Date Street is located in the center of the city in the bustling Mission Park district and sees heavy use by cyclists and pedestrians throughout the day. The Date Street site represents a prime opportunity to take advantage of neighborhood use of the trail, the pedestrian bridge and the proximity of local businesses. The design response develops the area around the Date Street bridges into a community gathering space.

The Lansing Circle site consists of adjacent two- and three-storey apartment buildings in a high density neighborhood located at Hickory Street and Lansing Circle. One of the greatest opportunities at the Lansing Circle site is the community's interest and willingness to collaborate with the City of Escondido and the property owner to steward their neighborhood. Other opportunities at this site include southern exposure, ample sunlight and the potential to expand the area of the victory garden to include the under-utilized, city-owned right-of-way land adjacent to the creek channel. The design response for Lansing Circle proposes a new community fiesta space, 10,000 square feet of beds, orchards, and planting areas and an outdoor

classroom area along the creek trail.

Windsor Place is a residential cul-de-sac which dead ends to the creek trail. The goal of the design team for Windsor Place is to provide public access to the creek trail. The design response includes a pocket park constructed at the intersection of the creek path providing a valuable access point to the Escondido Creek Trail.

Design Response – Creekwalk Destinations

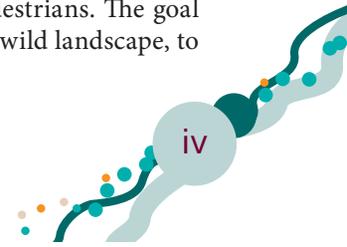
The Urban Wild Creekwalk Destination is located at the intersection of Ash Street and Escondido Creek. At five and a half acres, the size of the site offers versatility in the design to meet a myriad of design objectives and demands from the community. The urban neighborhood surrounding the site offers a high density, multi-use backdrop upon which to stage the Urban Wild. Higher building and population density, the various land uses adjacent to the site, and the grid street plan defines the context of this site as urban. The design proposes an environmental education park focusing on the nature that exists within the urban framework. Beyond the Interpretive Center, the other site features are designed to reinforce learning through on-site outdoor experiences.

The Creekfront uniquely combines two downtown Escondido attractions, Grape Day Park and Civic Center Plaza, into one grand Creekwalk Destination. The Creekfront poses a unique opportunity for the City of Escondido to partner with local business and property owners to create a lively destination in the civic heart of Escondido, offering a complete package of recreational,

entertainment, and cultural attractions. The design response proposes to open the creek corridor to reinstate hydrologic function, allow for vegetation growth, improve flood capacity and water cleansing, provide for wildlife, and allow the banks of the creek to once again become a vibrant and lively feature within the park. The Creekfront is also envisioned as a vibrant, bustling creek-oriented destination offering a mix of residential, entertainment, commercial, and employment options to residents and visitors alike. An important early step in implementation is addressing the Missing Link in the Escondido Creek Trail.

The Creekcross is located at the Escondido Transit Center, immediately south of the Escondido Creek corridor. The Creekcross site is a crossroads; it is the confluence of Reidy Creek and the Escondido Creek, the Inland Rail Trail, a major hub for regional and local bus lines, and the final stop for the Sprinter regional commuter train. The site is surrounded by industrial and commercial uses. Pollution from these land uses includes chemicals, solvents, machinery fluid, motor oil and waste water from production processes. The goal of The Creekcross is to improve water quality, increase habitat and provide an intriguing stop for trail users or passengers awaiting transit connections. The central design feature of The Creekcross is the constructed wetlands designed to cleanse run-off. Woven through the wetland landscape is a series of boardwalks providing strolling, sitting, picnicking, and viewing options for visitors.

Willow Walk is located at the westernmost area of the City of Escondido southwest of Harmony Grove Road. Opportunities to create regional trail connections abound at this site. The Harmony Grove area, near the site, has a large community of equestrians. The goal for Willow Walk is to preserve the wild landscape, to



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educate visitors on the importance of protecting the riparian habitat, provide recreational opportunities for visitors to engage with the creek, and to enhance connections between the Escondido Creek Trail and other local trails. A key feature of Willow Walk is the bridges designed to connect the trail. The Willow Walk Interpretive Center is designed to work in conjunction with the Urban Wild Interpretive Center.

The Escondido Creekwalk vision plan proposes a myriad of design solutions for the many issues affecting Escondido Creek, the watershed, the trail, and the community. The Creekwalk described in this vision plan was developed in response to many months of research, data collection and community input. The design response proposes solutions to address issues of access, trail connections, safety, poor water quality, degraded habit, and neighborhood revitalization.

Action Plan

The *Revealing Escondido Creek Vision Plan* is intended to serve as a guide illustrating how the Creekwalk may evolve over time. The vision plan document is meant to serve as a catalyst for change and can be used to secure funding from public and private sources by demonstrating a cohesive, community developed vision for the Creekwalk. With funding in place, the city of Escondido can once again create a vibrant, community oriented, ecologically responsible spine for the city.

The involvement of the community through stewardship programs can help ensure long-term management and guarantee maintenance beyond the vision planning and design phase of the project. Cultivating protection and stewardship of the Escondido Creek is contingent upon inspiring

appreciation of this unique local riparian feature. Providing access to the creek and its riparian environs for recreational purposes can be coupled with programming designed to increase awareness of the creek and its integral significance to the health of the regional environment.

A first step in restoring Escondido Creek to its former vibrancy involves the simple act of reflecting in our language Escondido Creek's true identity as a waterway. A signage program along the stream would help identify the Escondido Creek as a regional feature worthy of distinction.

Developing and supporting the formation of a "Friends of Escondido Creek" group can be an additional powerful technique. The value of creating community task forces will be in including more people in the decision-making processes, sharing the workload of implementing and enacting design ideas, and encouraging people to have a greater voice throughout the process of transforming the city for the future.

To increase the success of biological diversity in the region, natural resource policies that encourage the preservation and conservation of these habitats must be put into place, creating a system of open space corridors and easements which promote land acquisition programs. Because habitat, water quality and air quality are supported by open space corridors, watersheds and air basins, it is crucial that cities within the watershed collaborate with one another to address environmental issues on an ecosystem-wide basis.

The visioning process for the Escondido Creekwalk generated a great deal of community participation

and excitement; however, maintaining the energy and transitioning from the visioning process to the first steps towards implementation is crucial. It is important the community see that their efforts to re-imagine a revitalized creek-front were useful. Evidence that positive change along the Creekwalk is underway will help transition the momentum from one of imagination to one of realization.

This vision plan sets forth some grand ideas but also includes some easy to implement measures. Implementation of the vision does not need to wait to begin until the resources for the larger visions are in place—smaller scale aspects of the vision plan can and should begin as soon as possible.

Revealing Escondido Creek is about creating a vision for the community in which Escondido Creek is more than just a tool for managing storm water, it is an opportunity for the city and its residents to create a community that is revitalized socio-culturally, environmentally, and economically. Rethinking the community's relationship to the creek and exploring alternative solutions for local transportation options provides environmental benefits to downstream habitats, future generations, and the larger region while embracing the inevitable evolution of the city in the coming century. The vision plan proposes improvement at multiple scales and provides a forum for Escondido as a community to begin a dialog about how the creek and the city can evolve with future generations and proposes improvement at multiple scales.

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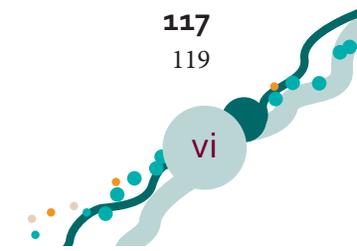


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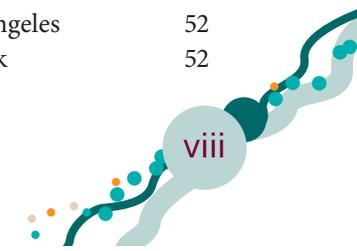
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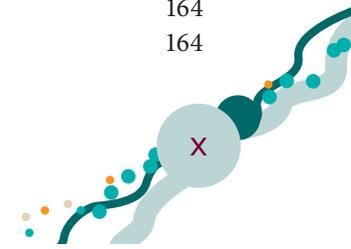


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How to Use this Document

This vision plan is intended to be useful to stakeholders at a variety of levels in the City of Escondido as well as to other communities in Southern California interested in reimagining their channelized creeks. Planners, citizens, conservation agencies, community organizations and public officials are encouraged to use this document as a catalyst to promote dialogs and conversations about the future of the Escondido Creek and the city. In this report the design team included a range of staged solutions and suggestions from the easily implemented and relatively inexpensive to more extensive long-term visions that can be realized over time. Research gathered by the design team is intended to enlighten the community and prompt further investigation into the possibilities for the creek and the community. It is our hope that this vision plan will aid the residents of Escondido and other communities in the region to view their creeks and waterways as assets worthy of exploration, appreciation and protection for future generations.

Section 1 Inspiration and Project Overview, outlines the significance of the project to the city, the residents of Escondido, and to the creek itself. It also presents the reader with an understanding about how ideas contained within the document could be implemented as well as the goals upon which those ideas are based. A comprehensive summary of the issues discovered by the design team is delineated as well as some of the past efforts to protect the creek, some of the resources that can be brought to bear to the task, and a brief history of the creek and the city.

Section 2 Vision for the Escondido Creek and Trail, articulates the design group's vision for the creek and trail and outlines the intended purpose of this document. The four values that shaped the development of the vision plan are articulated in this

chapter, and finally, the intended benefits of this plan to the community and future generations are discussed.

Section 3 Project Context, is a comprehensive look at the watershed, its characteristics, geomorphology, climate and hydrologic processes. This chapter also discusses the human and animal inhabitants of the watershed, as well as the plant species that can be found throughout the area. The demographics and socio-cultural significance of human habitation and its impacts on the land and local culture are examined here, as are the impacts the land has had on humans. Also included in this chapter are brief reviews of the infrastructure systems that have developed as a result of the urbanization of the Escondido Creek watershed. This chapter concludes with a description of the outreach efforts the design team undertook in order to gain an understanding of how the community uses the creek, what the community hopes the creek can become, what steps passionate individuals and groups have taken to protect and restore the creek and surrounding lands, and the issues the community identified with the creek and trail.

Section 4 Process, is an overview of the process and steps the design team performed to select design sites and develop the design response.

Section 5 Design Response, describes how the design sites connect to the larger region, addresses different site scales along the creek path, clarifies the distinctions between scales of design sites and explains how the design sites address a variety of typologies and opportunities within the city. Recommended design materials, their impact on a

variety of issues in the watershed, and how the overall plan may evolve over time are discussed. Finally, Section 5 analyzes design sites, justifies decisions, and details the solutions.

Section 6 Action Plan, outlines the steps that can be taken immediately based on resources that are currently available as well as steps that can be taken to educate local residents about the creek's potential. Finally, this chapter makes recommendations for future planning in the region and suggests ways to capitalize on existing projects that have begun to re-imagine the Escondido Creek for a new generation in a new century.



Section 1

INSPIRATION & PROJECT OVERVIEW



Significance of Project

The significance of *Revealing Escondido Creek* to the city and the watershed is threefold, encompassing environmental, socio-cultural and economic aspects.

Environmental

This project aims to reveal Escondido Creek as more than a stormwater conveyance system. Historically, the creek has been an integral component of the city and the watershed; this project illuminates this relationship while improving transportation and recreational opportunities within the city. Increasing awareness of the crucial role the creek plays in the watershed will help the community value and protect this vital waterway.

Socio-cultural

This project illustrates a plan to allow neighborhoods to connect to one another and

the larger region, in a safe and healthy manner. A multitude of literal and figurative bridges can aid in connecting the communities who live near to the creek and use the creek trail on a daily basis. These connections provide opportunities to craft environments for communities to gather and interact.

The creek trail provides a safe and reliable conduit through the city, is accessible to the entire community, and is useable for everyday activities. Access to, and use, of the Escondido Creek Trail can address our culture's current trend towards sedentary lifestyles and ameliorate the increasing crisis of childhood obesity.

Economic

The Escondido Creek bisects the heart of the city; this advantageous alignment benefits the community by providing a continuous pedestrian

and bicycle route and an important linkage corridor within the commercial core of Escondido. Improved circulation means greater transportation options for businesses, thereby stimulating commerce.

In addition, the trail alignment along the creek helps to capture resources currently lost or underutilized due to the current transportation paradigm. Trail users benefit by saving money on gas, fewer drivers on the roadways means less traffic and better overall fuel economy for all drivers, and less traffic equals greater savings to the community through reduced infrastructural spending.

The *Revealing Escondido Creek* vision plan represents an incredible opportunity to knit the community together, revitalize the environment, stimulate the economy, and mend the divide created by the concrete channel.

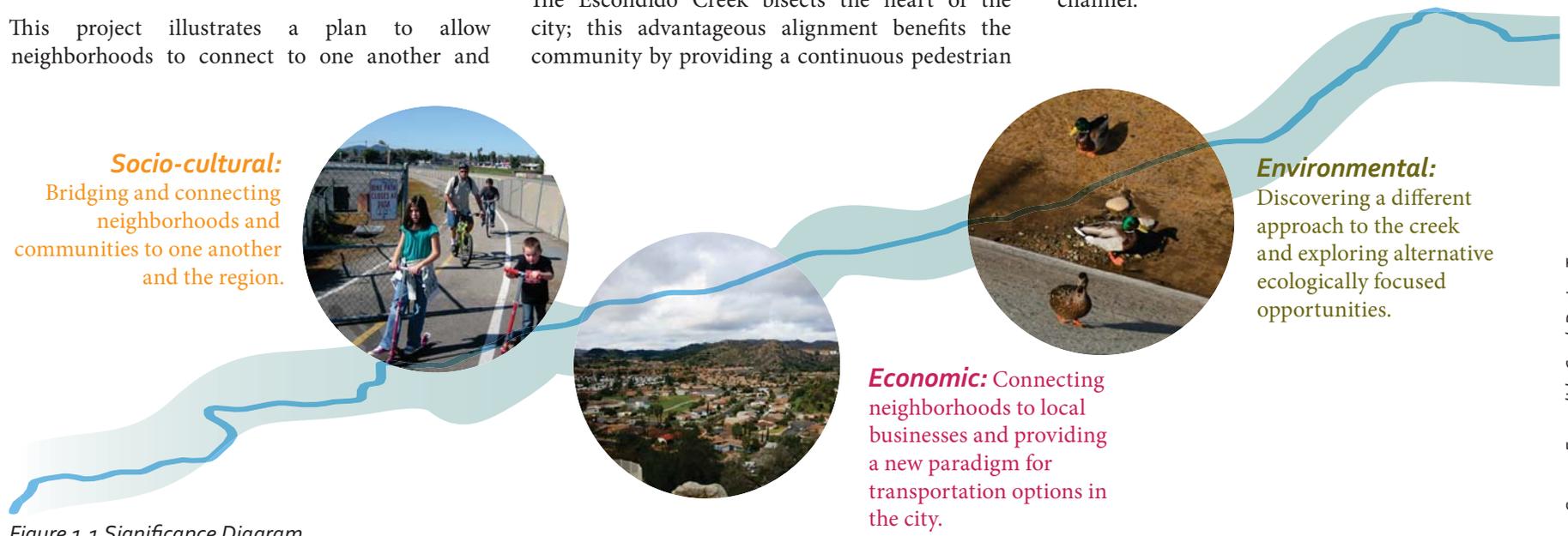


Figure 1.1 Significance Diagram

Setting of Escondido Creek & City of Escondido

The Escondido Creek Watershed is located in northern San Diego County in Southern California. The Escondido Creek flows 28 miles from the headwaters of the watershed to drain into the Pacific Ocean at the San Elijo Lagoon. The creek bisects the

City of Escondido, which is approximately 30 miles northeast of San Diego and 18 miles inland. The City of Escondido is located in a long valley surrounded by coastal mountains.

This project focuses on the reach of the Escondido Creek within the boundaries of the City of Escondido, located in the middle basin of the watershed.



Figure 1.2 San Diego County Location Map

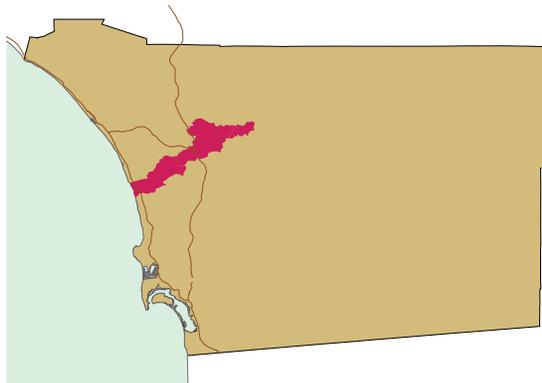


Figure 1.3 Escondido Creek Watershed in San Diego County Location Map

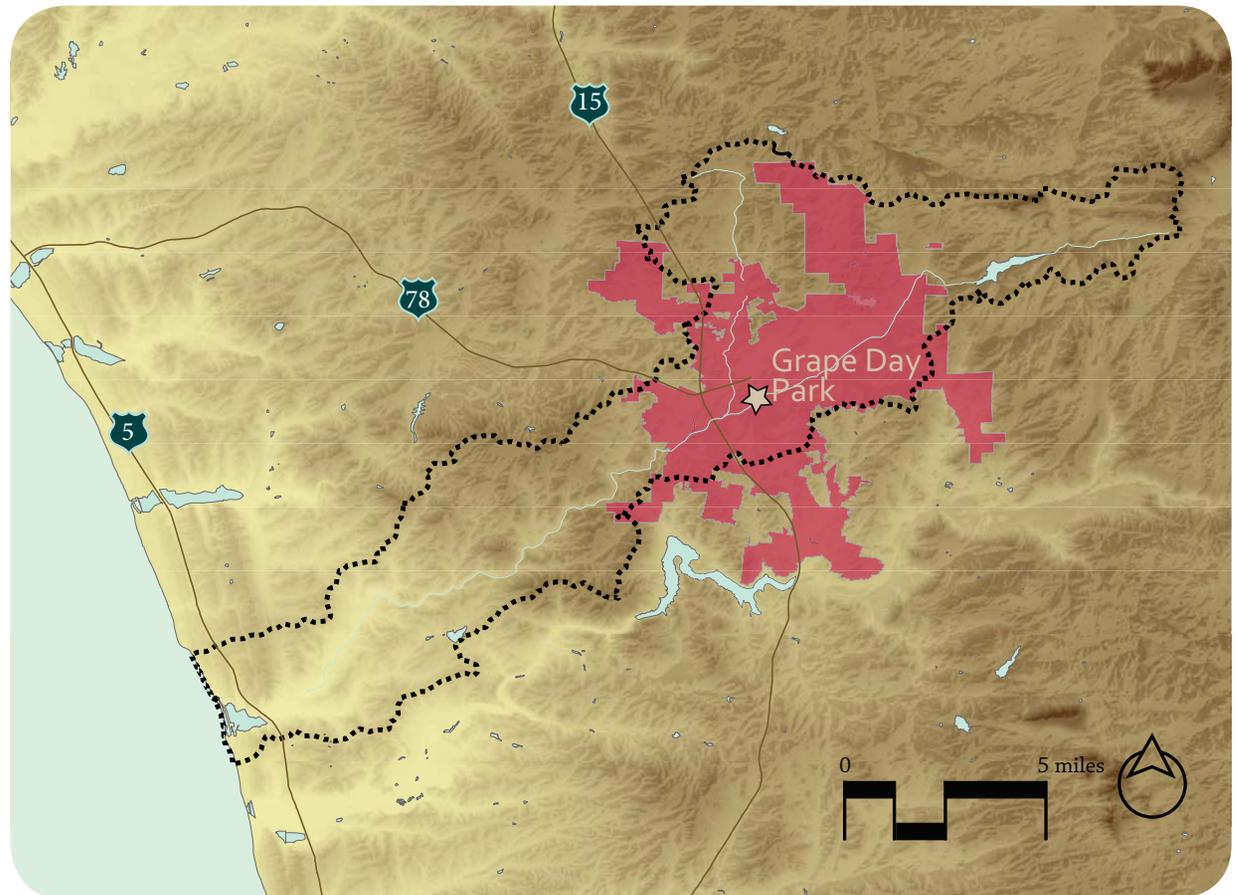


Figure 1.4 Escondido Creek Watershed Location Map

-  Escondido Creek Watershed
-  City of Escondido

Source: Escondido Creek Design Team

Goals & Objectives

The goals of *Revealing Escondido Creek* are interrelated and take advantage of the relationships between the community, individuals, and the environment by addressing the well being of the players in those groups. This project aims to improve the health of the community by addressing aspects of the health of the neighborhoods, individuals, the local economy and the environment.

Healthy neighborhoods can be fostered throughout the city by increasing available connections to the trail from adjacent areas and commercial districts. This increase in accessibility and porosity of the trail will enable more efficient use of the trail by allowing users to make connections across the channel and from the trail to adjacent areas. Attending to issues of public safety by addressing opportunities at intersections with cross walks, lighting and traffic calming devices

will also have a positive impact on neighborhoods adjacent to the creek.

Improving the health of individuals in the community can be achieved through the improvement of access and safety by prompting residents to increase their use of the trail for everyday activities. Enhancements in user safety will also encourage increased use by children as a



Figure 1.5 Goals & Objectives Diagram

Goals & Objectives

means to go to and from school. A greater number of trail use options will make increased use of the trail more likely and encourage residents to walk or ride more for enjoyment, exercise and practical reasons.

The health of local economies can be fostered by stimulating increased access to businesses in the city via the creek trail. Currently there are instances

where the creek trail provides an important avenue for residents to access local shops, restaurants and services that lie within a short walk of large residential neighborhoods. A safe and aesthetically appealing Escondido Creek Trail can also become a source of pride for the city and promote increased visitation by residents of neighboring cities.

Finally, the environmental health of the city can be fostered by taking steps to promote improved water quality and habitat for wildlife. The environmental health of the region as a whole can be addressed by promoting increased use of the trail for everyday activities and a reduced dependency on automobiles for everyday activities and errands.

Healthy Economy

- Stimulate local commerce—
increase access to businesses
- Create destinations to draw
visitors from neighboring cities

Healthy Environment

- Reduce car dependency—
increase transportation options
- Conserve water & energy
resources
- Improve water quality
- Provide places for wildlife

Summary of Issues

A three-pronged approach of conducting detailed field inventory and analysis, meeting with stakeholders, and gathering community input through community workshops, surveys, and interviews was used by the design team to identify issues along the Escondido Creek and Trail. The following sections of this document will expand on this process. However, a brief summary of the issues has been provided below as an overview.

User Safety:

- Occurrence of crime, particularly during the night, along the creek corridor
- Limited lighting fixtures along the trail leads to poor night visibility
- Lack of assigned police patrol and channel designs impedes effective patrol
- Few entrances/exits limits trail access
- Gates at trail entrances pose the possibility trail users may be locked inside
- Flooding is an historical issue along the creek and risk of flooding
- The concrete channel increases the velocity of water during storm events and risk of drowning
- The lack of traffic calming devices poses a risk to trail users crossing at the intersections of surface streets along the trail route
- The lack of crosswalks at trail/street intersections endangers trail users

- Buildings and fences along trail restrict users from exiting trail mid-block

Access:

- Connections between the trail and regional features need improvement to enhance regional circulation
- Gates at entrances restrict ingress/egress and impede access to the trail
- Few pedestrian bridges cross the creek, which limits cross channel circulation
- Mandatory night closure of the trail restricts access and can lock users inside the trail

Limited Use & Amenities:

- Lack of seating and gathering areas
- Lack of site amenities such as trash cans and water fountains
- Trail programming is limited to bicycle use and does not account for other types of trail use
- The trail is not sufficiently promoted; few residents are aware of the trail

Aesthetics & User Comfort:

- Lack of vegetation creates a barren landscape
- Unattractive fencing sends the message that the trail is not valued



Figure 1.6 Bike Route Sign

- Graffiti sends the message that the trail is not cared for
- Limited shading promotes high trail temperatures in summer
- Narrow trail width restricts flow in high use areas

Environmental Quality:

- Thermal pollution and eutrophication of water leads to fish die-off
- The concrete channel restricts native wildlife and creates habitat fragmentation
- Urban runoff dilutes downstream saltwater lagoons

Source: Escondido Creek Design Team

Summary of Issues

- Urban runoff introduces contaminants and pollution to the creek
- Concrete channel restricts the stream from recharging groundwater
- Invasive riparian species disturb stream function and impact native species
- Concrete channel inhibits growth of native vegetation and impairs habitat
- Few residents are aware the concrete channel was once a naturally occurring creek bed
- Few residents are aware the condition of the creek has a significant effect on the health of the watershed and local wildlife

Economic Resources:

- Local dependency on imported water is high and imported water supplies are being taxed
- Cost of imported water is increasing
- Financial resources for capital improvements have been restricted
- Budgetary cutbacks have eliminated the Police Department's bicycle task force for the creek corridor
- Maintenance of the concrete channel system is costly to the city



Source: Escondido Creek Design Team

Figure 1.7 Escondido Creek & Bike Trail

Habitat Fragmentation

Habitat fragmentation occurs when a divider, such as a road, separates a habitat area into distinct fragments. These dividers can prevent wildlife species from accessing mating partners, food sources, and restrict a species range. Within the Escondido Creek Watershed, the concrete channel serves as a divider, separating upper reaches of the watershed from lower reaches for waterborne species. Habitat fragmentation reduces biodiversity and may have uncertain consequences which can threaten a species or, in severe instances, lead to extinction (Center for Biological Diversity 2010).

Eutrophication

Water temperature increases and increased nutrients, such as nitrogen, in the stream cause algae bloom. Algae depletes the stream of oxygen and causes fish die-off downstream. Impacts from abundant algae in the stream have already been reported in San Elijo Lagoon. The water temperature increase, known as thermal pollution, is caused by the concrete of the channel heating the stream due to lack of tree canopy along the creek. The increased nitrogen is due to water carrying fertilizers and animal waste into the creek from residential and agricultural properties (KTU&A Merkel 2002).

Salt Water Dilution

Increased urban run-off from upstream communities disrupts habitat downstream in San Elijo Lagoon. The run-off dilutes the lagoon's naturally salty waters. Wildlife and vegetation in the lagoon have evolved to thrive in a specific mixture of saltwater and freshwater. Increased urban run-off to the lagoon upsets the proportion of freshwater, diluting the brackish conditions of the lagoon and threatening species native to the lagoon (SELC 2005).

Building on a Strong Foundation

The effort to protect the Escondido Creek Watershed and promote the Escondido Creek and Trail was initiated by concerned residents, organizations, and local municipalities long before the Cal Poly Pomona design team proposed the development of this vision plan. Motivated to ameliorate previous land management decisions that have obscured the creek from public awareness and have negatively affected the health of the stream, local residents and municipalities have been making both formal and informal efforts to raise awareness of the creek and improve the existing conditions along the creek for over twenty years. These efforts have included sponsoring watershed studies, generating reports of the creek and region, coordinating creek and trail awareness bicycle rides, and coordinating meetings between involved groups.

The Escondido Creek Conservancy (TECC) is a non-profit corporation “dedicated to the preservation, restoration and protection of the natural open space within the Escondido Creek Watershed” (The Escondido Creek Conservancy 2005-2010). TECC’s main office is located in downtown Escondido near City Hall. Located down the watershed is the San Elijo Lagoon Conservancy—a non-profit citizens group with the mission to “preserve, protect and enhance the San Elijo Lagoon Ecological Reserve and its watershed” (San Elijo Lagoon Conservancy 2008). Both of these groups have contributed to raising watershed awareness and to the conservation and preservation of land in the watershed. In addition, these groups participated in the development of this vision plan by meeting team members, participating in the community outreach events, and graciously sharing data resources with the design team.



Figure 1.8 Logos of Different Groups & Agencies

Local municipal agencies working to protect the watershed include the City of Escondido, the County of San Diego, and the four water districts: Olivenhain Municipal Water District, San Dieguito Water District, San Elijo Joint Powers Authority, and Santa Fe Irrigation District. Each of these agencies has worked to set aside land in the watershed for watershed conservation, open space preservation, and recreational purposes.

The City of Escondido has initiated efforts to further increase awareness of the issues surrounding the Escondido Creek as well as implementing solutions. In 2010, the city contracted with the Department of Landscape Architecture at Cal Poly Pomona to prepare this vision plan for the Escondido Creek and Trail. The city’s Storm Water Program promotes protecting the watershed and raising awareness of stormwater issues and best practices. The program webpage is a resource for these publications and brochures (<http://www.ci.escondido.ca.us/depts/ut/stormwater/index.html>). In addition to literature and brochures, the city’s Storm Water Program provides free

presentations on stormwater pollution and its effect on the watershed to schools, fairs/events, civic, rotary, and group organizations.

In 2002, the Escondido Creek Watershed Alliance (ECWA) was formed to “facilitate cohesive watershed planning and management” (San Elijo Lagoon Conservancy 2008). A Memorandum of Understanding (MOU) for ECWA was signed in 2002 by three cities with boundaries within the watershed—Escondido, Solana Beach, and Encinitas; the County of San Diego; and two land conservancies, TECC and San Elijo Lagoon Conservancy. An updated MOU in 2008 added four water districts within the watershed as signatories: Olivenhain Municipal Water District, San Dieguito Water District, San Elijo Joint Powers Authority, and Santa Fe Irrigation District. Watershed Protection practices established by ECWA are implemented on a voluntary basis (San Elijo Lagoon Conservancy 2008).

The efforts of these groups and agencies have led to the protection of approximately 25 miles of stream along Escondido Creek and its tributaries through

Building on a Strong Foundation

conservation easements or by fee-title ownership (San Elijo Lagoon Conservancy 2008).

The effort to protect and revitalize the Escondido Creek and Watershed began before the Cal Poly Pomona design team initiated research for this vision plan. It is because of the efforts of the groups named here and the many nameless individuals who have

been working for change in the watershed that the design team was able to develop this vision. The ideas and information in this vision plan will add to the momentum to further protect the creek and watershed. It will be the gracious contributions of many committed individuals and organizations that will bring these ideas to fruition.

List of Published Materials & Studies

Following is a brief list of published materials and studies, see Table 1.1, useful to protection efforts within the Escondido Creek Watershed.

<i>Publication</i>	<i>Publishing Agency</i>	<i>Online</i>
The Escondido Creek Watershed Restoration Action Strategy	The San Elijo Lagoon Conservancy	http://www.sanelijo.org/Publications/Reports/Esc_Creek_Action_Plan.pdf
Carlsbad Watershed Management Plan	Project Clean Water	http://www.projectcleanwater.org/html/ws_carlsbad_plan_network_plan.html
Jurisdictional Urban Runoff Management Plan	City of Escondido & EDAW, Inc.	http://www.ci.escondido.ca.us/depts/ut/stormwater/jurmp/2008.pdf
Best Management Practices for Commercial & Industrial Businesses, Landscaping, Mobile Businesses, Residential Car Washing, Swimming Pools & Spas Public Outreach Brochure	City of Escondido	http://www.ci.escondido.ca.us/depts/ut/stormwater/bmps/index.html

Table 1.1 List of Published Materials & Studies

Brief Historical Overview

A Home to Many People

The Escondido Creek has been a place of human settlement for centuries. The archeological record indicates that the Kumeyaay and Luiseno people settled in the “Hidden Valley” as early as 10,000 years ago (The Pioneer Room 2002). These people remained the primary inhabitants near the creek until the nineteenth century immigration of Europeans. European settlers brought with them the concept of land grants, converting the Hidden Valley to a “rancho.” Governance of the valley shifted from Spain to Mexico, and then to the United States with California’s statehood in 1850. Land speculators arrived soon after and recognized a tremendous development opportunity in the valley. The land was divided into parcels and settlers began establishing homes, businesses and farms. In keeping with the patterns of the valley’s original inhabitants, the Escondido Creek was at the center of this new development.

In 1888, the City of Escondido was incorporated. It was soon evident the burgeoning city had outgrown the wells and water supplied by the creek, and city leaders and business entrepreneurs undertook large infrastructure projects to secure water for the valley. Dams, aqueducts, and the importation of water from hundreds of miles away ensured the town could continue to grow, as evidenced by the population explosion in the valley during the second half of the twentieth century.

Amid the commotion of water acquisition, however, the Escondido Creek continued to be a presence in the valley. Because the city was built along the creek and within the floodplain, residents were intermittently inconvenienced and even

endangered as the creek overflowed its banks every few years. The year 1916 brought a torrential storm with 24.1 inches of rain falling in an 18 day period, permanently bruising the town’s psyche. The incessant downpour saturated the earth, and the swollen Escondido Creek rushed through the valley taking with it homes and businesses. The economic impacts were severe as the flood caused extensive damage to buildings, twisted train tracks, and ruined crops. The magnitude of this event, combined with the continued flooding in subsequent years, left fear in the minds of the townspeople which ultimately led to efforts to control the creek years later. These factors coupled with economic pressure from

continued land acquisition led to the straightening and channelization the Escondido Creek in the late 1960s. When the project was completed, the city had exchanged riparian habitat, ecological systems and a natural creek for seven miles of concrete channel. While the channel serves to provide the city with flood control, human experience and wildlife habitat have been greatly compromised. Recently residents have begun questioning whether, in addition to flood control, the creek channel can also provide social, recreational and environmental opportunities.



Figure 1.9 Swollen Escondido Creek West of Broadway 1952



Figure 1.10 Flooded Escondido Creek at Midway Avenue 1969

Brief Historical Overview



Figure 1.11 Wooden Bridge at Lime Street (Present-day Broadway near Grape Day Park) and Escondido Creek 1895

Source: Escondido History Center Photographic Collection

Adaptable Implementation

This conceptual timeline represents how elements from the *Revealing Escondido Creek Vision Plan* could be incorporated over time. Some of these elements are easier to implement than others, for example, painting crosswalks could happen next week, organizing a group of neighbors to plant trees and sunflowers could occur the following month, and traffic lights could be installed within the next year. Channel modification would no doubt be a longer term prospect needing careful development and planning. This vision plan, however, is not simply about the incorporation of elements; it is about reclamation: reclaiming the transportation system from its cars; reclaiming the Escondido Creek from its concrete channel; and reclaiming the city from traditional development. By

incorporating some of these elements and enacting some of these interventions, Escondido Creek can become a positive force within the community and each intervention can be one more step in the process of reclaiming Escondido Creek.

The vision plan was developed to allow for an adaptable implementation plan that can adjust to the changing needs of the community and fluctuations in financial resources. Adaptability of the vision plan is achieved through the range of design solutions proposing options for both the near term and long term.

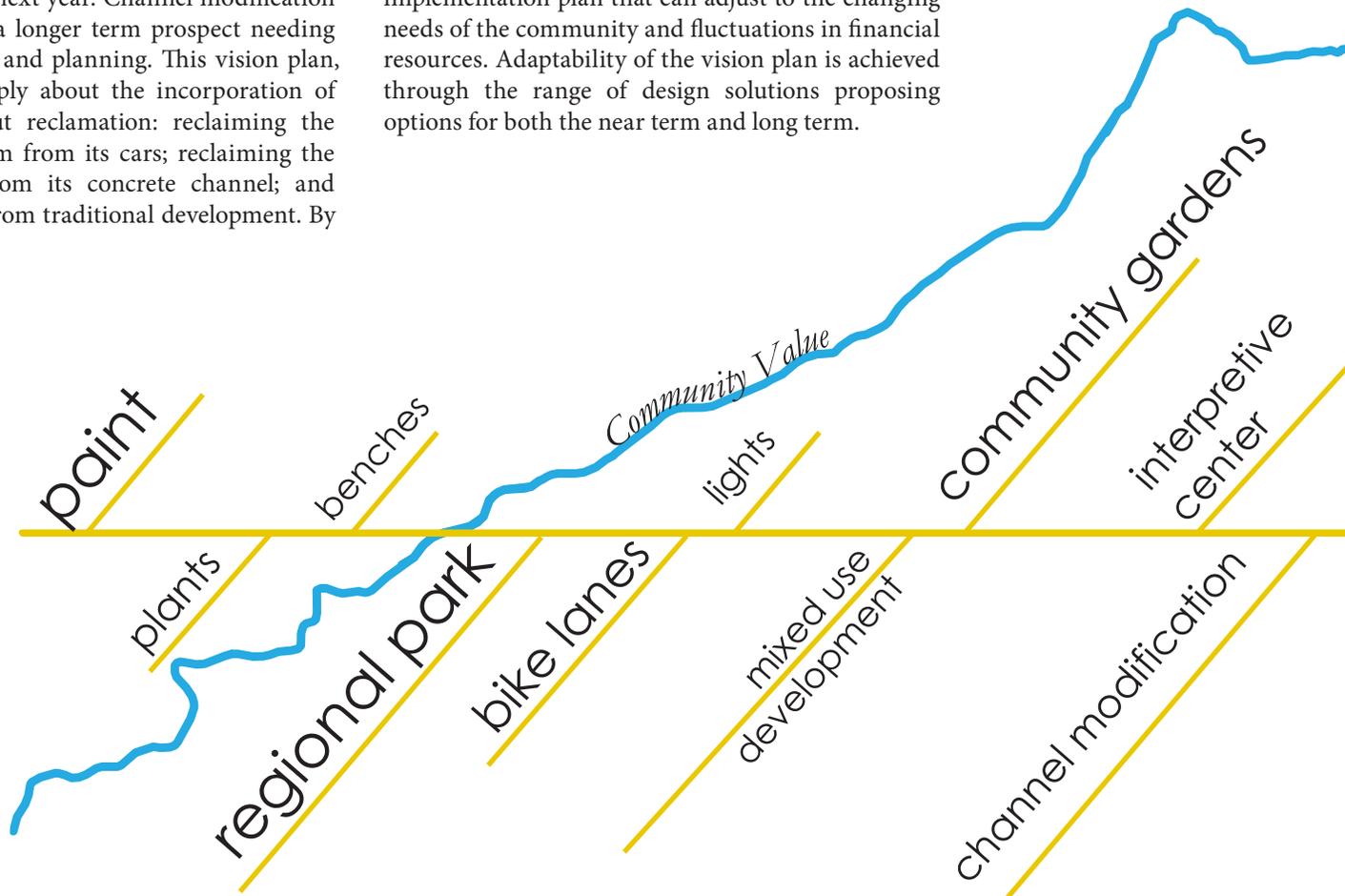


Figure 1.12 Conceptual Timeline



Source: Escondido Creek Design Team

Figure 1.13 A Bicyclist on Escondido Creek Trail

Section 2

VISION FOR THE ESCONDIDO CREEK & TRAIL



Vision Statement

Vision Plan Overview

Revealing Escondido Creek outlines a future in which the Escondido Creek Trail becomes a linear creek-walk park providing residents and visitors with an opportunity to engage the creek in both its wild and urban typologies. The vision is of a park extending the length of the creek boundaries, connecting neighborhoods to the downtown, schools to parks, and communities to creek-oriented destinations via safe and attractive trails. The Escondido Creekwalk will incorporate the existing Escondido Creek Trail and proposes creating a linear system of park sites and extensions to the existing trail. The Creekwalk Park will serve as a recreation and transportation conduit uniting eastern and western areas of the city while facilitating fluid movement of residents and

visitors across the creek channel from the north bank of the creek to the south. The design team envisions an Escondido Creekwalk which can serve as a model for other Southern California communities demonstrating how an urbanized creek can be integrated into the life of a city.

The vision was developed by the design team through data collection and the design process. Data collection includes, but is not limited to, community outreach and events, stakeholder and expert interviews, researching past literature and relevant case studies, and the county/city's map collection. The vision was further expanded during the design process, which is described in the following pages.

Purpose of the Vision Plan

The purpose of a vision plan is to assist a community or municipality with future planning efforts, by taking into account site context at the local and regional scale while developing a farsighted and imaginative strategic plan for future growth and redevelopment. This vision plan endeavors to help the community generate ideas and further discussion about the future direction of the city and its relationship to the Escondido Creek. Additionally, it aims to be a catalyst for cooperative efforts between the city, local environmental organizations, county agencies and individuals. As an economic tool, this vision plan is intended to provide the community with a means to speak with a collective, united voice while pursuing federal, state, and regional grants and development funds.



Figure 2.1 Vision of Escondido Creekwalk

Source: Escondido Creek Design Team



Figure 2.2 Vision of Escondido Creekwalk

Source: Escondido Creek Design Team

Values Shaping the Project

The values shaping this vision plan are reflected in the multi-faceted project goal. These four values are: Social Equity & Environmental Justice, Community Engagement, Environmental Responsibility, and Adaptability. The key values were identified by the design team as echoed in the voices of the community through the outreach events. With these values in mind the design team shaped the perspective for the project vision and all aspects of the design responses. Instilling these values into the design responses will ensure the maintained and resilient success of the project. The values listed are described in detail below:

Social Equity & Environmental Justice

Environmental burdens and inequitable access to resources can plague a community, rendering it prone to issues of diminished opportunity and security. Sensitive to the complexities of inequity, the design team seeks to provide equal access for all members of the community regardless of income, ability, or social affiliation.

Community Engagement

Community valuation and support of the design solutions are crucial to the success of the project. To achieve this approval, the design team seeks to provide a forum in which all members of the community have an opportunity to express their ideas and participate in the design process. Great efforts have been made to promote and ensure that interested individuals have access to participate.



Source: Escondido Creek Design Team

Figure 2.3 Bike Walk Survey Event

Environmental Responsibility

As a community of concerned individuals, we have a responsibility to respond to the issues pertaining to the Escondido Creek and Trail with solutions that protect and restore the environmental quality of the Escondido Creek. The design team believes the benefits of environmental stewardship extend beyond habitat and wildlife, improving human environments and ensuring that future generations of Escondidans will enjoy the benefits of a balanced landscape.

Adaptability

A rigid set of design solutions will not allow the community to respond to the myriad challenges facing the community, the creek and the trail over the coming decades. Providing design solutions that are flexible in their implementation and can be adapted to meet the changing needs of the community will guarantee the success of the project.

Benefits of the Project

Revealing Escondido Creek is about creating a vision for the community and the creek in which Escondido Creek is more than just a tool for managing stormwater, it is an opportunity for the city and its residents to create a community that is revitalized socio-culturally, environmentally, and economically.

The vision plan provides a forum for Escondido as a community to begin a dialog about how the creek can evolve with future generations. A community-wide discussion can serve as a bridge between distinct communities within Escondido, ensuring all voices are heard and all concerns are addressed. These discussions can further serve as a tool for the collection of the community's memories and experiences about the region and the creek's vibrant and colorful history.

The vision plan also proposes improvement at multiple scales. Easily implemented and relatively inexpensive improvements focused on public safety and aesthetics are feasible at a variety of locations throughout the city and require very little in the way of political capital. Long-term, imaginative and comprehensive suggestions for the creek will require additional community dialog and a fundamental rethinking of the relationship between the community and the creek.

Rethinking the community's relationship to Escondido Creek as a flood control system and exploring alternative solutions for local transportation options provides environmental benefits to downstream habitats, future generations, and the larger region while embracing the inevitable evolution of the city in the coming century.



Figure 2.4 Group Discussion at a Revealing Escondido Creek Community Meeting

The city's economic health can also be nourished by embracing the confluence between living, working and playing while capitalizing on opportunities to create community assets incorporating these ideals. Additionally, by recognizing the value of existing infrastructure and expanding on opportunities to modify and improve existing systems as they age and require maintenance, the city will be able to take advantage of a phased implementation process as funding sources, public support and political will become available.

Source: Escondido Creek Design Team

Section 3

PROJECT CONTEXT



Bio-Physical: Unique Local Physical Features



Bottle Peak

Figure 3.1 Panorama View of Escondido Looking South from North Broadway Area

Historical Context

As one of San Diego County’s oldest cities, important aspects of the history of Southern California and the West have played out in Escondido. Development reveals itself in the reservoirs and water projects, the quaint and historic downtown, and the houses of Old Escondido. The dynamic nature of the watershed is revealed by the six jurisdictional limits that extend into the boundaries that nature and topography have imposed to create the watershed and the variability of the climate from Bear Valley to San Elijo Lagoon. During Escondido’s 130 year history, the city has become home to over 150,000 people, provided refuge for a multitude of social and religious institutions

and fostered the creation of important aspects of Southern California culture.

Unique Local Features

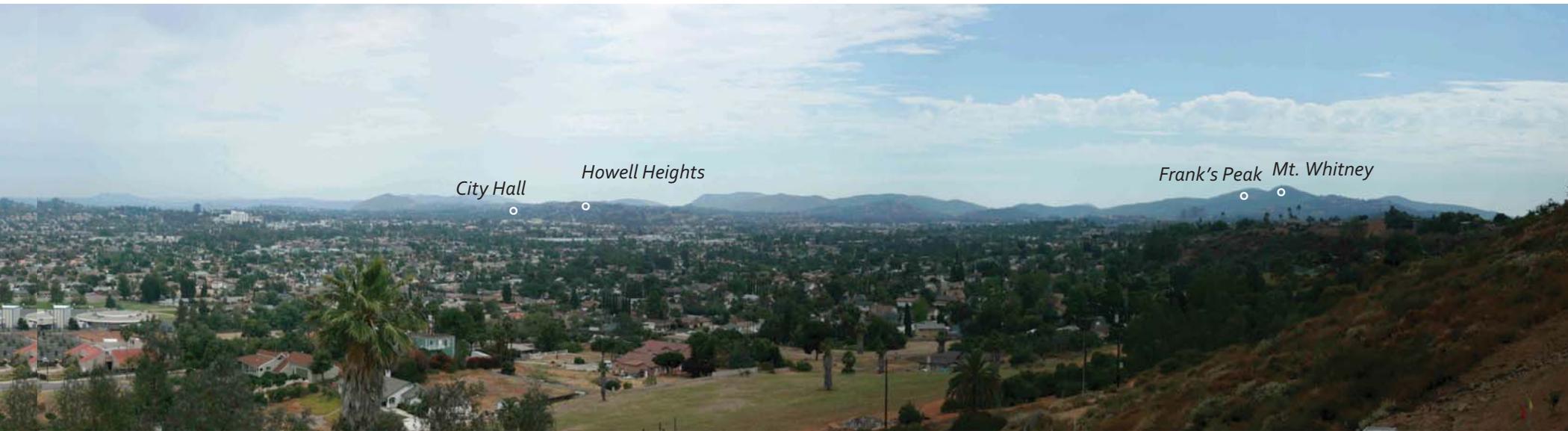
The City of Escondido is located in the middle of three basins in the Escondido Creek Watershed at an approximate elevation of 600 feet above sea level (see figure 3.1 for a panoramic view). In Spanish, Escondido means “hidden”; due to the hills which flank the city on the east and west, the valley which cradles the city has affectionately become known as “The Hidden Valley.” It is a landscape of prominent topography punctuated

by goldenrod colored outcroppings of craggy granite speckled hillsides.

The Escondido Creek originates in Bear Valley east of the City of Escondido at an elevation of 2,250 feet. The creek meanders down to the floor of the Hidden Valley passing between two sentinels on the east side of town—Stanley Peak to the north and Bottle Mountain to the south. These two prominent peaks help orient eastbound users of the Escondido Creek Trail from Grape Day Park to the Eureka Springs neighborhood.

Traveling west, in the opposite direction, Mount Whitney and the more diminutive Franks Peak are

Bio-Physical: Unique Local Physical Features



Source: Escondido Creek Design Team

the prominent landmarks guiding trail users as they travel towards the sunset. A bend in the creek near Interstate 15 redirects the flow of the stream around Howell Heights near the Escondido Transit Center, sending the river through San Elijo Canyon, southwest of Mount Whitney, to Elfin Forest and, ultimately, the Pacific Ocean.

To the north, Bear Rock, a naturally occurring rock formation resembling a sow and her cub, stands watch over the route as people enter and exit the Hidden Valley along Interstate 15. This local rock formation marks the southern end of the Merriam Mountains. From the Escondido Creek Trail, Bear Rock is obscured by hills in the Indian Rock Springs area.

The northeast side of town is distinguished by the apricot colored rock façade of Council Ridge, part of the Oat Hills and the open spaces of Daley Ranch and Deer Park Monastery. Along Escondido Creek Trail, views of Council Ridge are most striking near the confluence of Escondido and Reidy Creeks.

Among the most prominent landforms on the south side of the city is the fertile San Pasqual Valley, the narrow San Bernardo Valley, Lake Hodges, and Bernardo Mountain which towers above Lake Hodges and the Del Dios area. These areas are within the San Dieguito River

Watershed, the watershed tangentially south to the Escondido Creek Watershed.

In the northeast, Palomar Mountain, the highest peak in San Diego County, looms over the city—exceptional views of which can be had from the west side of Escondido and Escondido Creek west of Auto Park Way.

Bio-Physical: Geomorphology

A geomorphologic analysis of the Escondido Creek Watershed reveals a study in contrasting forces—the dramatic thrust of tectonic collision responsible for creating the hills flanking the upper watershed working against the relentless aeolian (wind) and riparian (water) forces responsible for returning the hills to sea level (see figure 3.3 for a graphic overview). The story of these three forces is written in the geography of the watershed, a testament to the perpetually changing topography of the landscape.

Ancient rock can be found in two areas within the watershed; in the hills ringing the upper watershed and in rock outcroppings on the western side of the City of Escondido. Sometime in the Mesozoic geologic era, known commonly as the age of dinosaurs, the igneous rock now found in the upper reaches of the Escondido Creek Watershed began forming beneath the Earth's crust (KTU&A,

Merkel & Associates 2002). It is believed this rock was derived from the same source, or batholiths, from which the Sierra Nevada mountain range emerged (Walawender 2010). As the Pacific Plate began to shift from the continent, the emerging San Andreas Fault thrust the land upward to form the Peninsular Range of mountains (Walawender 2010). These ancient rocks are found today towering above Bear Valley and the City of Escondido (KTU&A, Merkel & Associates 2002). Following the stream's course to the western side of Escondido, ancient metamorphic rock, crystallized in a bygone era by subterranean pressure, can now be seen above ground in the quartz outcroppings found in the canyons of the middle basin of the watershed (KTU&A, Merkel & Associates 2002).

The valleys and lower reaches of the watershed are marked by sedimentary processes, formed through the layering of material at the Earth's surface (KTU&A, Merkel & Associates 2002). Compared to the igneous

rock in the upper watershed, these are more recent developments in terms of geologic timelines. The valleys and low lying areas of the watershed have filled through aeolian and riparian forces eroding rock and depositing it along the stream. The basin of Bear Valley, the valley floor of the City of Escondido, and the coastal slopes in the lower watershed are recent alluvium (KTU&A, Merkel & Associates 2002). The steep bluffs flanking the San Elijo Lagoon are thought to be Pleistocene sandstone (KTU&A, Merkel & Associates 2002). This sandstone formed in approximately the same epoch as the dawn of human stone-age cultures—and is therefore a more “youthful” stone than the Mesozoic rock of the upper watershed.

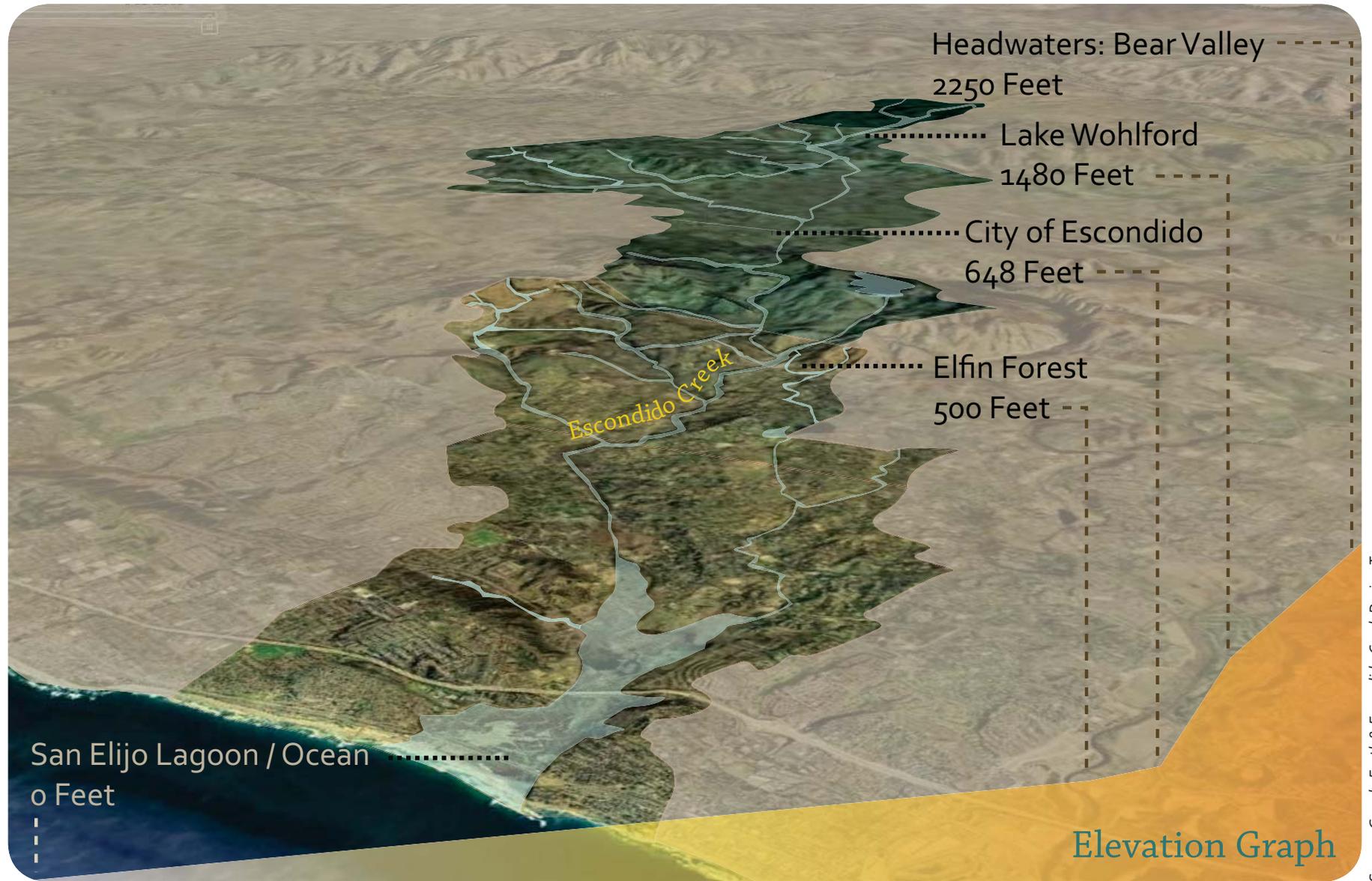
The forces at play continue to this day as the northward moving Pacific Plate applies tectonic pressure to the hills of the upper watershed, and wind and water work to erode these hills to the sea.



Figure 3.2 Escondido Rock Outcropping

Source: Escondido Creek Design Team

Bio-Physical: Landform



Source: Google Earth & Escondido Creek Design Team

Figure 3.3 Escondido Creek Watershed Landform

Bio-Physical: Watershed

Within San Diego County, the Escondido Creek Watershed is relatively small, contributing just two percent of area to the fourteen other hydrologic areas of the region. However, within the seven watersheds in the Carlsbad hydrologic unit, the Escondido Creek Watershed is the largest and most complex.

The Regional Water Quality Control Board (RWQCB) divides the Escondido Creek Watershed into three hydrologic subareas (HSA's), Wohlford, Escondido and San Elijo. These HSA's are defined based on similarities in elevation and climate. Broadly described, the entire watershed can be seen as three catchment basins linked by the Escondido Creek from Bear Valley in the northeast, to the San Elijo Lagoon in the southwest.

There are four reservoirs in the watershed: Wohlford, Dixon, San Dieguito and Olivenhain (see figure 3.5). There are also two areas in which reservoirs existed in the past, but were destroyed by heavy rains, flooding and associated sedimentation during the 1980s. Within the 84 square miles of area the watershed encompasses approximately 60 miles of first and second order streams (The San Elijo Lagoon Conservancy 2005).

The Escondido Creek Watershed historically drained intermittently to the Pacific Ocean at San Elijo Lagoon; however, due to urban development in the watershed, the lower two-thirds of Escondido Creek now sees perennial flows (KTU&A, and Merkel & Associates 2002).

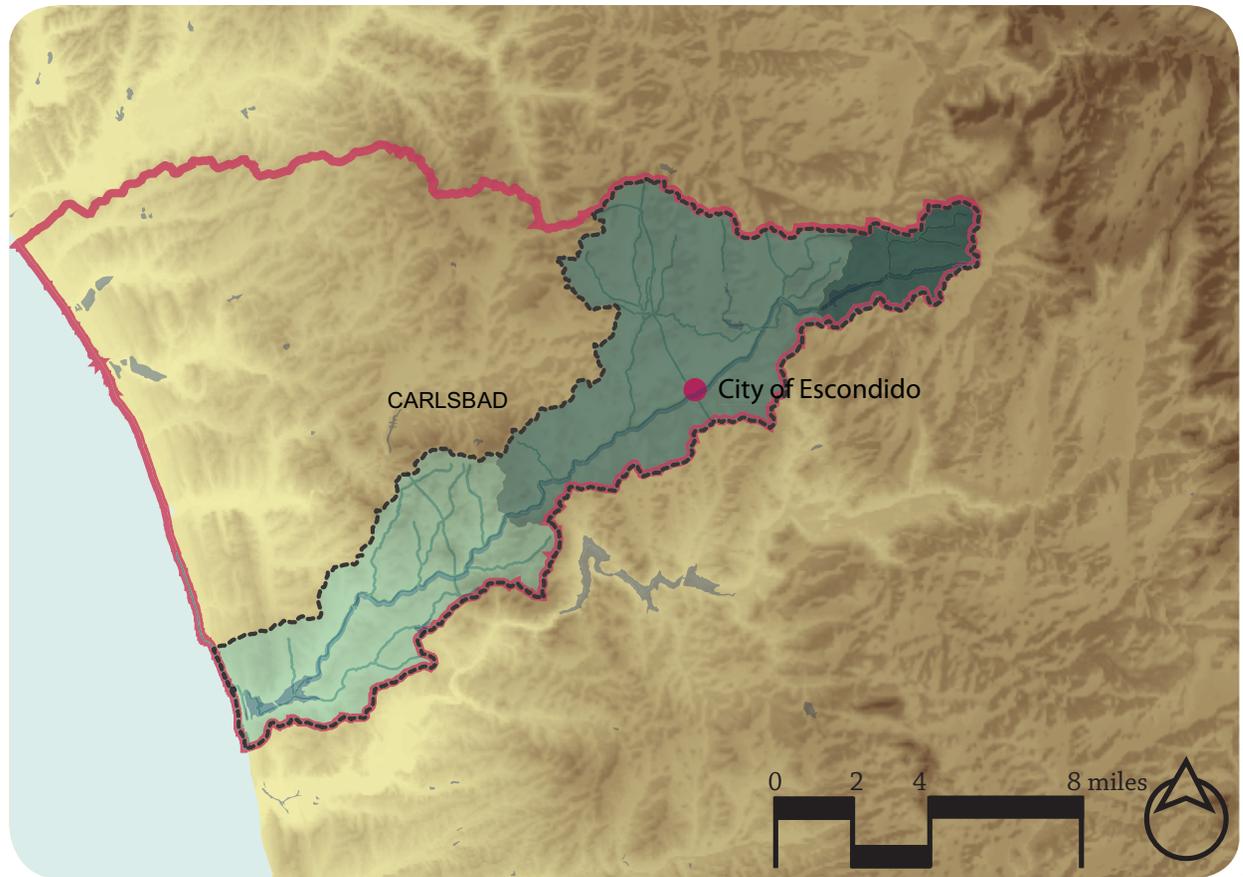


Figure 3.4 Escondido Creek Watershed Map

Elevations within the watershed range from sea level at San Elijo Lagoon to just over 2400 feet in Bear Valley (see figure 3.3). Slopes in the watershed vary from steep highly erodible cliffs and hills in the upper watershed to rolling hills near the ocean. The highly erodible soils found throughout the watershed combined with land management practices have contributed to issues of sedimentation along the course of the Escondido

- Carlsbad Hydrologic Unit
- San Elijo Hydrologic Subarea
- Escondido Hydrologic Subarea
- Wohlford Hydrologic Subarea
- Escondido Creek
- Streams
- Waterbody
- Escondido Creek Watershed

Bio-Physical: Watershed

Creek as well as its associated tributaries (KTU&A, and Merkel & Associates 2002).

Wohlford Hydrologic Subarea

The headwaters of Escondido Creek are located in the uppermost basin of the watershed (see figure 3.5). The Wohlford Hydrologic Subarea (HSA) is the smallest of the three hydrologic subareas, encompassing only eight square miles. With just three intermittent first order streams at an ultimate elevation of roughly 2400 feet above sea level, the Wohlford HSA is just over 20 miles from the Pacific Ocean.

The largest body of water in the watershed, Lake Wohlford was created in 1887 by the Wohlford Dam. The lake, which supplies the City of Escondido with the majority of its drinking water is itself filled with water from the 14 mile long Escondido canal. The canal conveys water from the San Luis Rey River in the San Luis Rey Watershed. The dam at Lake Wohlford, which does not release water into the Escondido Creek, effectively disconnects the Wohlford HSA from the rest of the watershed (The San Elijo Lagoon Conservancy 2005).

Stocked with trout, bass and catfish, Lake Wohlford is a popular fishing destination for fishermen in the region. While the shoreline of Lake Wohlford is largely undeveloped, there are some recreational facilities located on the north shore as well as commercial and residential development.

Escondido Hydrologic Subarea

The Escondido HSA is the largest of the three subareas covering nearly 50 square miles (29,200 acres). This second catchment basin is also the most

urbanized of the three subareas, with the City of Escondido occupying most of the valley. Urban forest, open space, agriculture and a population of approximately 145,000 people intermingle across a floodplain roughly three miles wide, and make this the most diverse land use pattern in the watershed. Of the three HSAs, this one also has the greatest issue with invasive species, particularly *Arundo donax* (Giant Cane) (The San Elijo Lagoon Conservancy 2005).

Immediately upon entering the Escondido HSA, the Escondido Creek flows into the highly urbanized setting of the City of Escondido. The undeveloped areas of Daley Ranch and Lake Dixon Reservoir (completed in 1971) are to the north of the city, while residential and commercial development have largely replaced the former agricultural lands that once flanked the creek. Immediately upon entering the urbanized valley floor, the creek is confined to a concrete trapezoidal flood control channel built by the USDA's Soil Conservation Corp in 1969. On its relatively straight path through the City of Escondido the creek bisects neighborhoods, travels under roadways, and passes the City of Escondido's municipal arts complex and Grape Day Park.

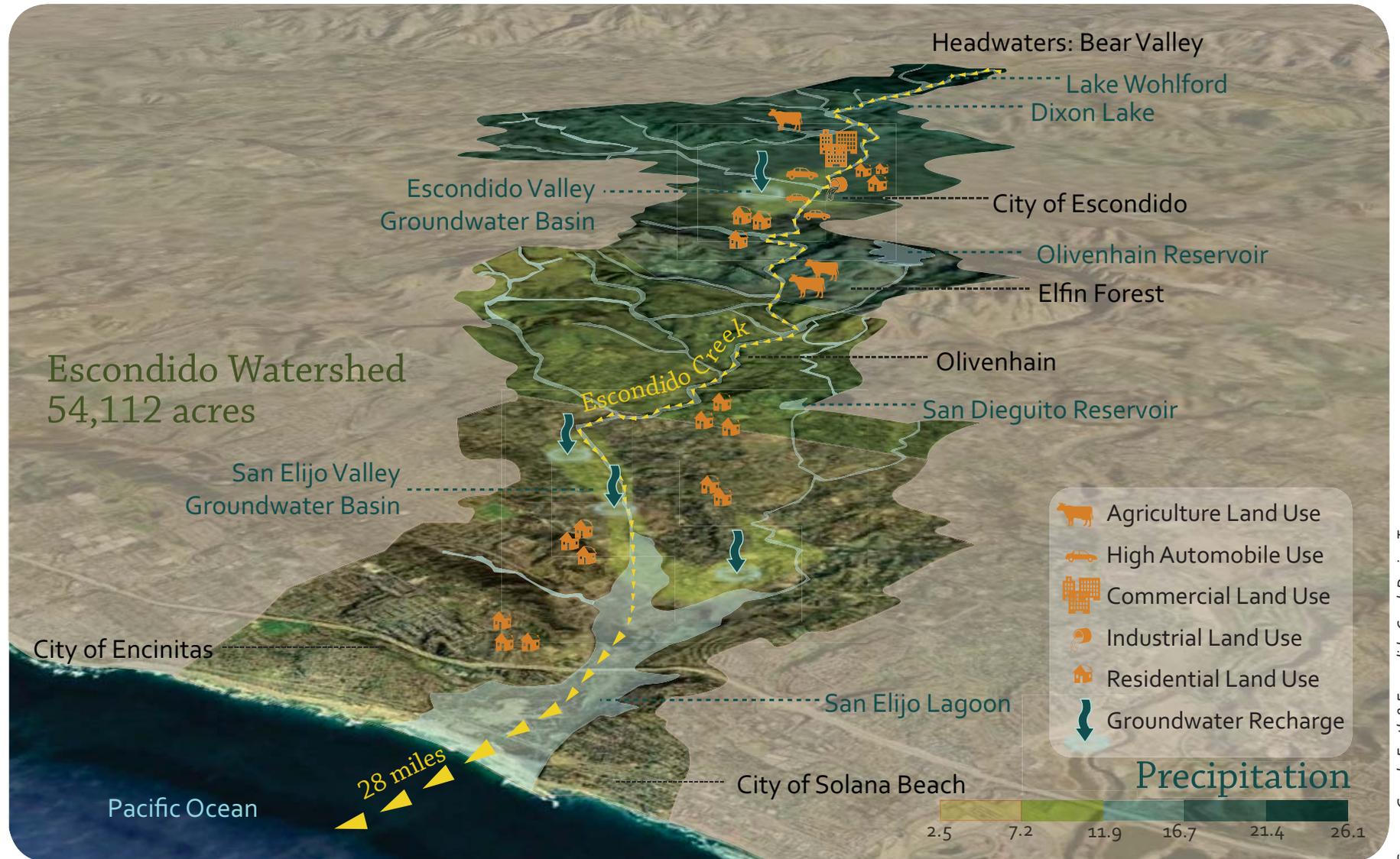
Throughout its course, the creek is fed by a number of tributaries. The largest of them is Reidy Creek, a roughly six mile tributary. The headwaters of Reidy Creek are undeveloped land north of the city, but it quickly flows through residential neighborhoods, municipal, commercial and finally industrial lands, until its confluence with Escondido Creek. Reidy Creek consists of both naturalized and channelized lengths and flows under a shopping center in much the same manner as Escondido

Creek as it drains into the heart of the city in the middle of the Escondido HSA. Near the western end of the Escondido HSA is the Hale Avenue Resource Recovery Facility (HARRF), a municipal wastewater treatment plant. This facility is the starting point for a sewer line extending 8000 feet into the Pacific Ocean servicing both the City of Escondido and the community of Rancho Bernardo.

San Elijo Hydrologic Subarea

As the creek flows south out of the Escondido HSA it enters San Elijo Canyon and the San Elijo hydrologic subarea. This third and lowest catchment basin is the most ecologically diverse and hydrologically active of the subareas within Escondido Creek Watershed. The creek, in a mostly naturalized state, is followed by Harmony Grove Road through the canyon to the confluence with Questhaven Creek. This confluence was the former site of Elfin Forest Reservoir, which filled with sediment after floods in the 1980s. The valley and the floodplain widen at this point only to narrow again where the creek begins to meander according to the geomorphology of the hills. The headwaters of Cielo Creek, which joins the Escondido Creek from the east as it continues down the canyon toward the ocean, is now the location of Olivenhain Reservoir, an emergency water storage for San Diego County. Throughout its course down San Elijo Canyon, the creek is forded by numerous Arizona crossings, a street crossing in which the stream intentionally flows over the roadway and bridges. It is also surveyed by large lot residential developments and flanked by small areas of agriculture. Immediately north of the former lake Val Sereno, the Escondido Creek is joined by Copper Creek in a developed residential area just above the San Elijo Lagoon and the Pacific Ocean (see figure 3.5) (The San Elijo Lagoon Conservancy 2005).

Bio-Physical: Watershed



Source: Google Earth & Escondido Creek Design Team

Figure 3.5 Escondido Creek Watershed Process

Bio-Physical: Channel Section

Overview of Channel Characteristics

The channelized portion of the Escondido Creek consists of a concrete-lined trapezoid channel designed to accommodate the flows of a 100-year storm event. Illustrated below are three cross sections of the channelized portions of the Escondido Creek. These sections represent typical configurations of the channel: the typical trapezoid section found along most reaches of the creek within Escondido, the box culvert section of the channel found along the Grape Day Park section of the creek and under the Civic Center Plaza Shopping Center, and the wide trapezoid configuration found in the lower reaches of the channelized portion of the creek.

Box Channel Section

This illustration (figure 3.7) represents the typical box channel reach of the stream located between Broadway Avenue and Center City Parkway in Grape Day Park and under the Civic Center Plaza Shopping Center. The concrete-lined sides of the channel throughout this portion of the creek are vertical and approximately 20 to 25 feet high (SanGIS 2010). The width of the channel is approximately 30 to 35 feet with a slight concavity or depression along the length of the centerline of the stream (SanGIS 2010).



Source: Escondido Creek Design Team

Figure 3.6 Box Channel at Grape Day Park

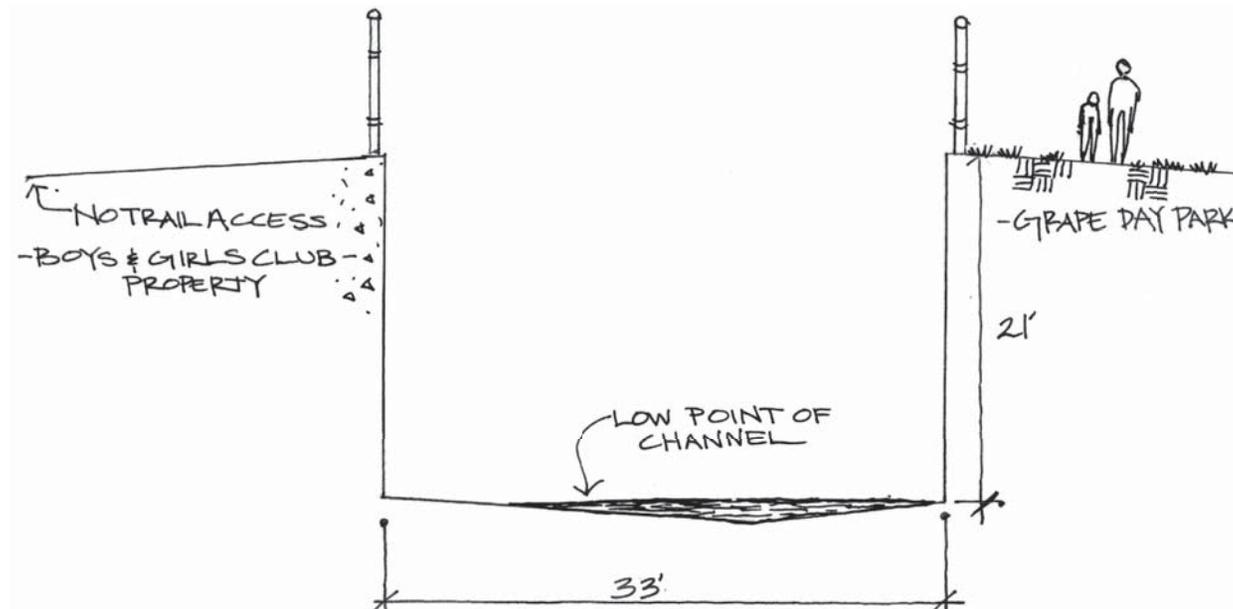


Figure 3.7 Box Channel Section (Typical)

Bio-Physical: Channel Section

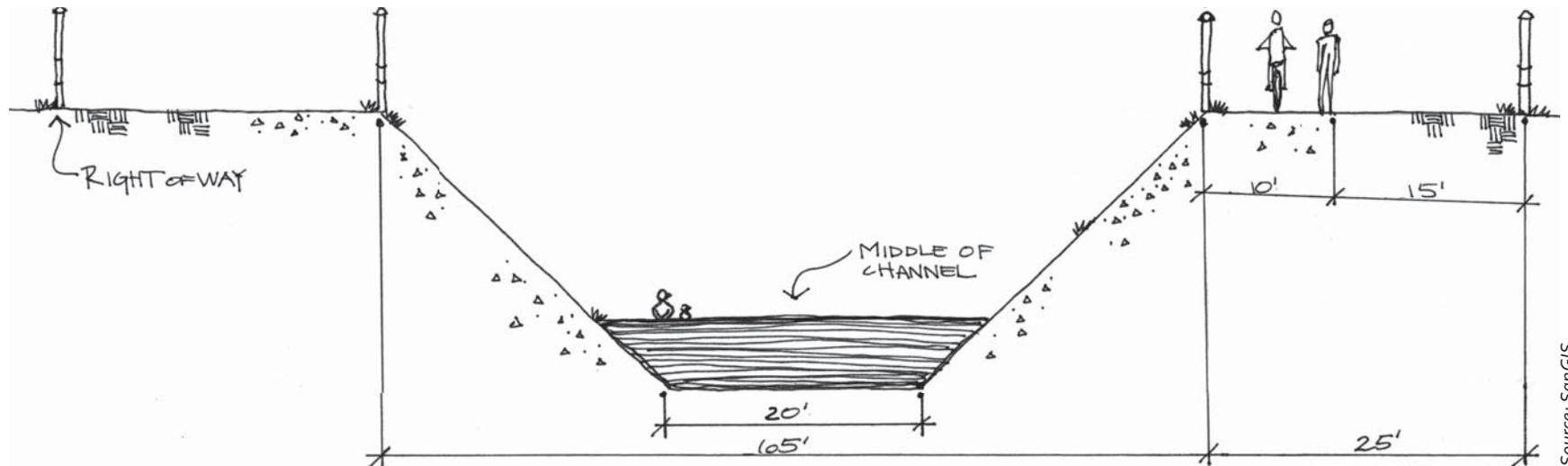


Figure 3.8 Narrow Trapezoidal Channel Section (Typical)

Narrow Trapezoidal Channel Section

This cross section (figure 3.8) represents a typical section of the channelized portion of the Escondido Creek and illustrates the relationship between channel width and depth. Typical widths of the bottom of the channel are 20 feet, while the width of the channel at the top is roughly 65 feet. Channel depth averages 16 to 19 feet (SanGIS 2010). The concrete-lined sides of the channel have slopes of roughly 71%-84% and tend to be uninterrupted, smooth surfaces, with intermittent openings for 36 inch diameter storm drains. Vegetation is kept to a minimum through frequent maintenance by the city in order to ensure unobstructed flows during storm events. Hydraulic roughness coefficients (Manning's Roughness Coefficient "n") typically range from 0.016 to 0.025 for the channel and 0.040 to 0.050 for the overbanks (SanGIS 2010).



Figure 3.9 Typical Channel near Ash Street

Source: Escondido Creek Design Team

Bio-Physical: Channel Section

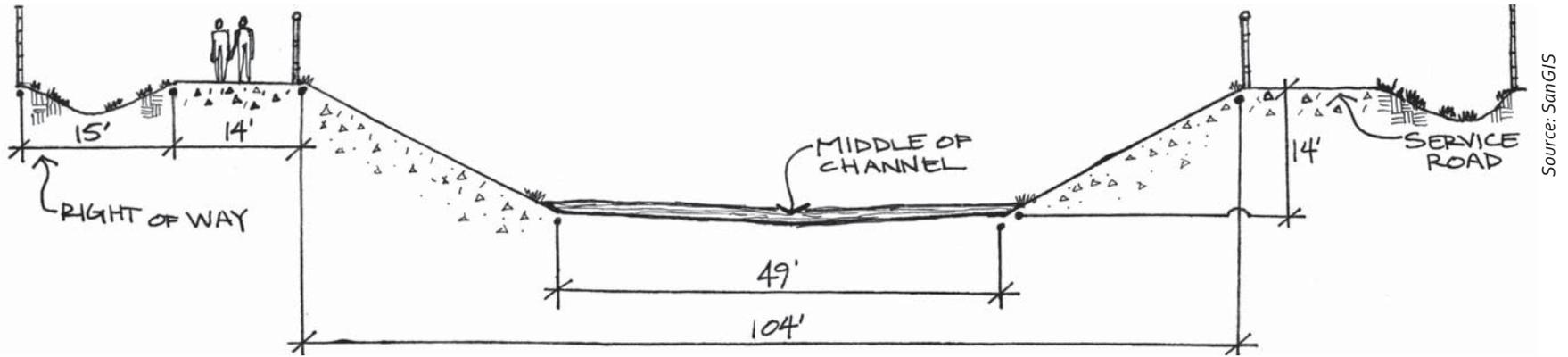


Figure 3.10 Wide Trapezoidal Channel Section (Typical)

Wide Trapezoidal Channel Section

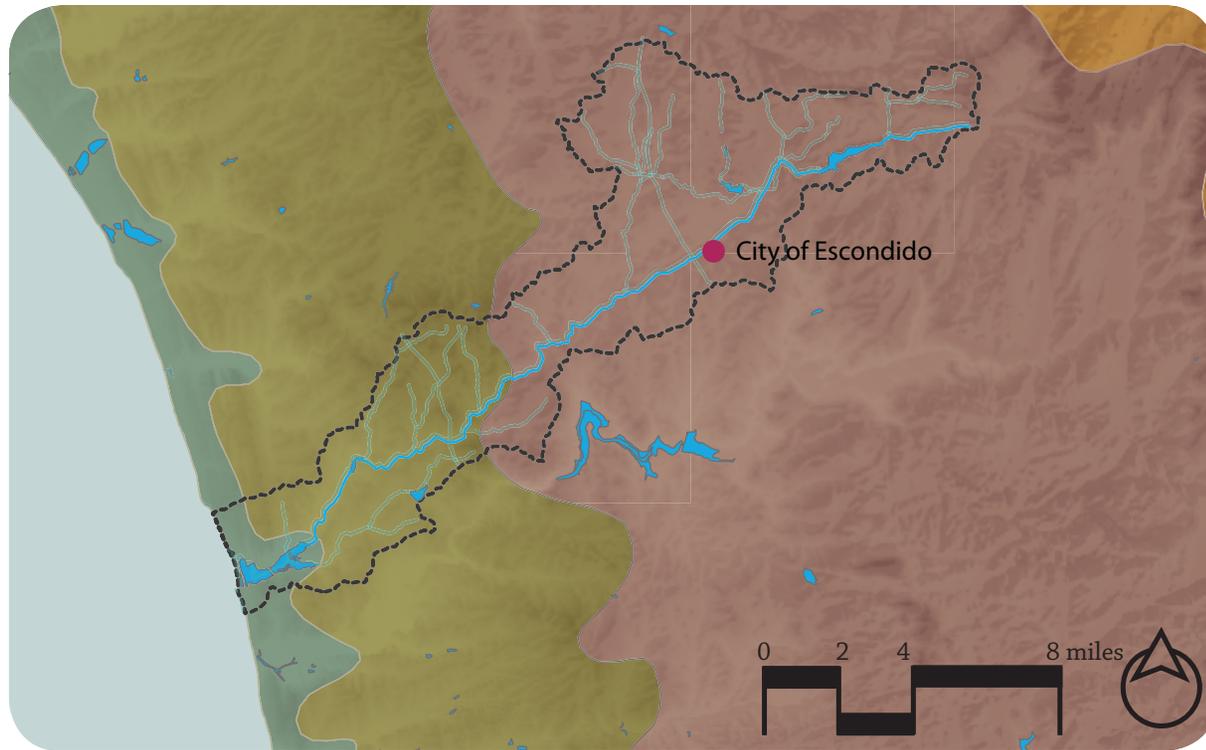
The lower reaches of the channelized portion of the Escondido Creek are significantly wider than the upper portions, with typical bottom widths of 45 to 55 feet, significantly wider than the other channel cross sections, and widths at the channel top of 100 to 110 feet (SanGIS 2010). This wide trapezoid cross section (figure 3.10) is designed to accommodate the increased volume of water flowing through this section of the watershed. The channel is approximately 14-15 feet deep. The side slopes of the channel are not as steep as those found in the upper reaches, averaging 60% or roughly 7:11 (SanGIS 2010). The lower reaches of the channelized portion tend to experience increased sedimentation and deposits of debris compared to upper reaches due to this increased width. In flowing water, sediment is suspended in the water column by the velocity of the moving water. As stormwater reaches the wider channel, the water slows and drops sediment. Vegetation will grow in the accumulated sediment found in the bottom of the wider channel which provides habitat for avian wildlife and benthic macroinvertebrates.



Source: Escondido Creek Design Team

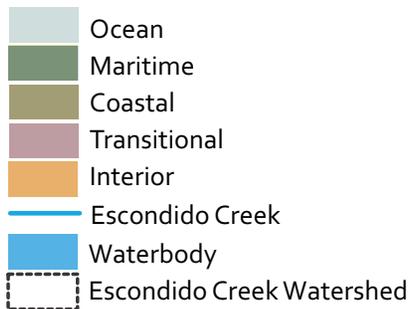
Figure 3.11 Wide Channel near Harmony Grove Road

Bio-Physical: Climate



Source: SanGIS

Figure 3.12 Escondido Creek Watershed Climate Map



Escondido Creek Watershed Climate

The Escondido Creek Watershed has a mild Mediterranean climate, characterized by mild wet winters and warm, dry summers. This climate extends through three climate zones: maritime, coastal and transitional (see figure 3.12).

The maritime zone, extending roughly six to eight miles inland and influenced greatly by the Pacific Ocean, is typified by high humidity and mild temperatures. Winter days average 65°F and summer days are usually in the mid-70s (The

Escondido Creek Watershed Restoration Action Strategy 2005). Elevations within this narrow zone average less than 400 feet above sea level with low clouds and fog common throughout the year (ECWRAS 2005).

Extending roughly thirty miles inland from the maritime zone is the coastal zone. Though it has less influence on this zone, the Pacific Ocean is still a significant factor on temperatures and the weather in the coastal zone. Higher elevations accompany greater fluctuations in temperature, but communities in this climate zone experience similar morning fog, clouds and humidity (ECWRAS 2005).

The head of the watershed is located in the transitional zone, an area that regularly experiences conditions of both the coastal and interior zones in the inland valleys, foothills and mountains. Elevations in the transitional zone are generally less than three thousand feet, experience greater temperature fluctuations than the coastal zone, and are cooler in the winter but warmer and dryer in the summer.

Daytime humidity is often low, with summer temperatures reaching 100°F while winter temperatures are mild at 70°F (see figure 3.13 for average fluctuations) (ECWRAS 2005). Roughly sixty-six percent of the Escondido Creek Watershed lies within the transitional climate zones (ECWRAS 2005).

Bio-Physical: Climate

Escondido Watershed Precipitation

The climate of San Diego County is greatly influenced by a semi-permanent, high-pressure area located in the eastern Pacific Ocean known as the Pacific High (EDAW Inc. 2005). In the summer, this high-pressure cell provides nearly year-round clear skies by directing storm tracks north of California. When the Pacific High moves southward during the winter months, low-pressure storms bring widespread precipitation to the region (EDAW Inc. 2005). In San Diego County, the months of heaviest precipitation are November through April, with an average precipitation of nine to fourteen inches annually (see figure 3.14) (City of Escondido 2010). Escondido typically receives between ten and fifteen inches of rain annually (ECWRAS 2005).

City of Escondido Climate

Due to its inland location, the City of Escondido tends to have warmer summers and wetter winters than the neighboring City of San Diego. Located in the transitional zone, it has a mild Mediterranean climate, with yearly precipitation averaging roughly fifteen inches, but varying greatly from year to year (City of Escondido 2010). On average, February has the highest precipitation and August has the lowest precipitation (City of Escondido 2010).

The nearly year-round mild climate conditions of the City of Escondido make it an ideal location for the enjoyment of outdoor recreation and alternative transportation. The mild climate supports nearly year round trail use as few days are too rainy or too hot to be outside.

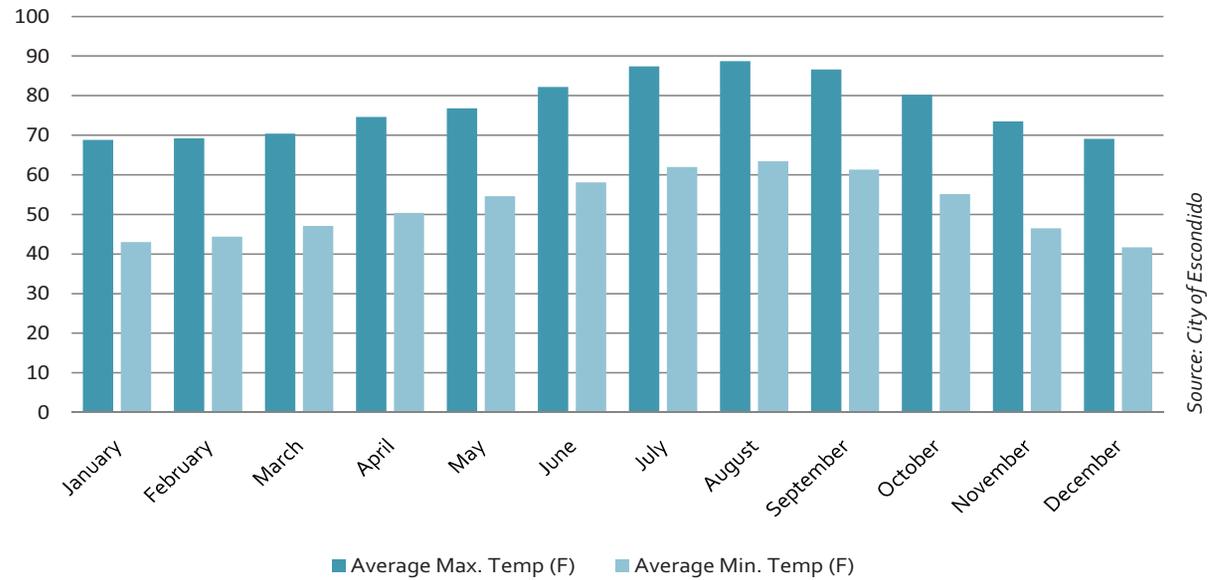


Figure 3.13 Escondido Average Temperature

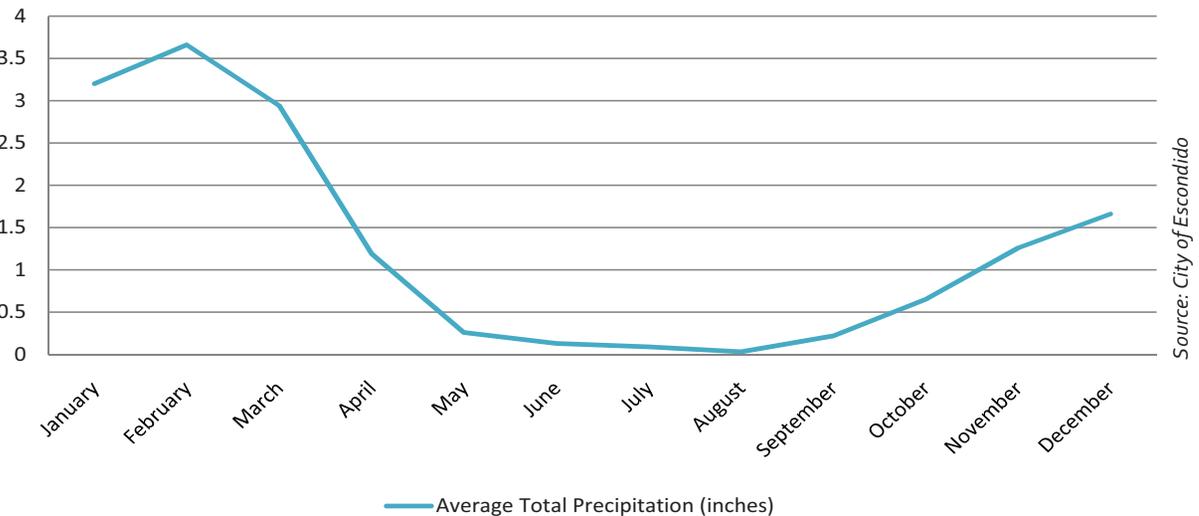


Figure 3.14 Escondido Average Precipitation

Bio-Physical: Air Quality

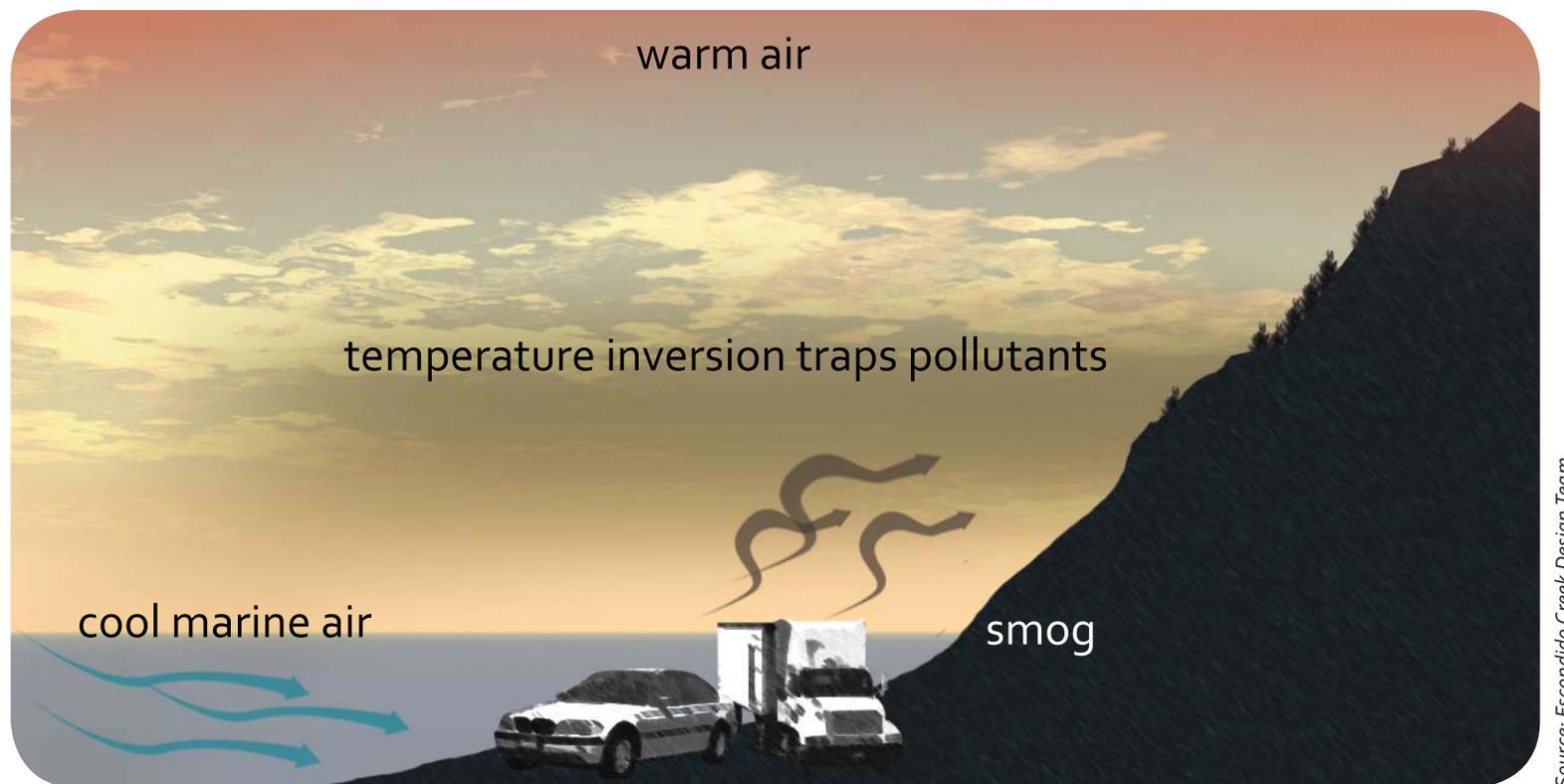


Figure 3.15 Air Pollution

Emissions

Emissions generated in the populated western areas of San Diego County are pushed inland toward the foothill slopes by onshore breezes where they react with the area's abundant sunshine and become ozone smog (Air Pollution Control District 2005). Frequently, temperature inversions trap these pollutants against the western slopes preventing them from rising over the foothills (see figure 3.15) (APCD 2005). This temperature inversion is caused when warm, dry air settles over cooler ocean air

which then prevents emissions from dispersing into the upper atmosphere, thereby creating higher concentrations of ozone (APCD 2005). As a result of its inland location and the surrounding foothills, Escondido experiences relatively high levels of ozone pollution (APCD 2005).

While emissions from the South Coast Air Basin (Los Angeles, Orange, and portions of Riverside and San Bernardino Counties) and Mexico also greatly contribute to San Diego County's air quality problems, the San Diego Air Pollution

Control District's annual report finds that on-road transportation is responsible for 46% of the region's greenhouse gas emissions (City of Escondido 2010). This supports the importance of promoting alternatives, such as bicycling and walking, to the conventional use of private automobile transportation. The need to reduce local reliance on the car is heightened during the summer months when ground level ozone pollution increases due to summertime inversions. Providing shade along the trail for hot summer months will be crucial for increasing summer trail usage.

Bio-Physical: Process

Human Impacts on Hydrology

The constructed infrastructure added to the watershed has led to drastic changes in the hydrologic processes of the Escondido Creek. As is the case throughout much of Southern California, the hydrologic system of the Escondido Creek system has been modified either through importation of water, channelization or impoundment. These modifications have made it possible for millions of people to live and work in the region, but have also had far reaching impacts on habitat, water quality and wildlife.

The processes that have been altered or disrupted include the transportation of sediment by the creek through the length of the watershed, restrictions to the infiltration of groundwater within the watershed, the increased freshwater run-off due to urbanization of the watershed and water importation from the San Luis Rey River diversions at Lake Wohlford and from the State Water Project. Impoundments have also had negative implications on sediment transport and water flows. Channelization inhibits nearly all natural hydrologic function and has many negative impacts on water quality. Further, the reliance by the federal, state and local governments on structural solutions rather than integrated natural solutions, such as detention basins (figure 3.16) and swales, for managing hydrologic systems has resulted in increased costs for management, control and maintenance.

Unforeseen Consequences of Human Development

Disruption of natural processes can have unforeseen consequences, often with costly repercussions. Sediment transportation by creeks through watersheds is a natural and important stream function

that helps renew the sand on the beaches of Southern California. Barriers, such as roads, bridges, dams, flood control channels and structures in the watershed have disrupted the natural sediment transportation patterns, depleting San Diego County beaches of sand (Moffatt & Nichol 2007). These barriers block and trap material that would naturally spill into the ocean at the mouth of the creek and wash back up on the beach in the form of clean sand (see figure 3.17).

The first disruption to the natural process of sediment transport begins at the dam at Lake Wohlford. This dam removes the historic source of water from the rest of the watershed by retaining and isolating runoff from this headwater source for use as drinking water and recreation. Immediately below the dam at Lake Wohlford is the Eureka Springs Desiltation Basin. The purpose of this basin, known indecorously as the “sand lake,” is to accumulate any sediment being carried by runoff from the upper reaches of the watershed, thus preventing it from entering the flood control channel portion of the Escondido Creek. Within the concrete channel, any sediment that does accumulate is routinely removed to prevent vegetation from growing to allow for maximum water capacity (The San Elijo Lagoon Conservancy 2005). Further down the Escondido Creek Watershed, at the point where the Reidy Creek soft bottom channel becomes concrete, drastic changes in water flow also result in the capture of sediment. When the Escondido Creek returns to a soft bottom at Harmony Grove, the flow of water slows as it encounters vegetation and the natural bottom of the creek causing the precipitation of sediment, thus creating an “unofficial sediment basin” (KTU & A Merkel 2002). At the end of the watershed in

San Elijo Lagoon, a railroad and a freeway divide the lagoon into thirds causing additional sediment traps, preventing the beach from receiving the sediment it needs to replenish itself.

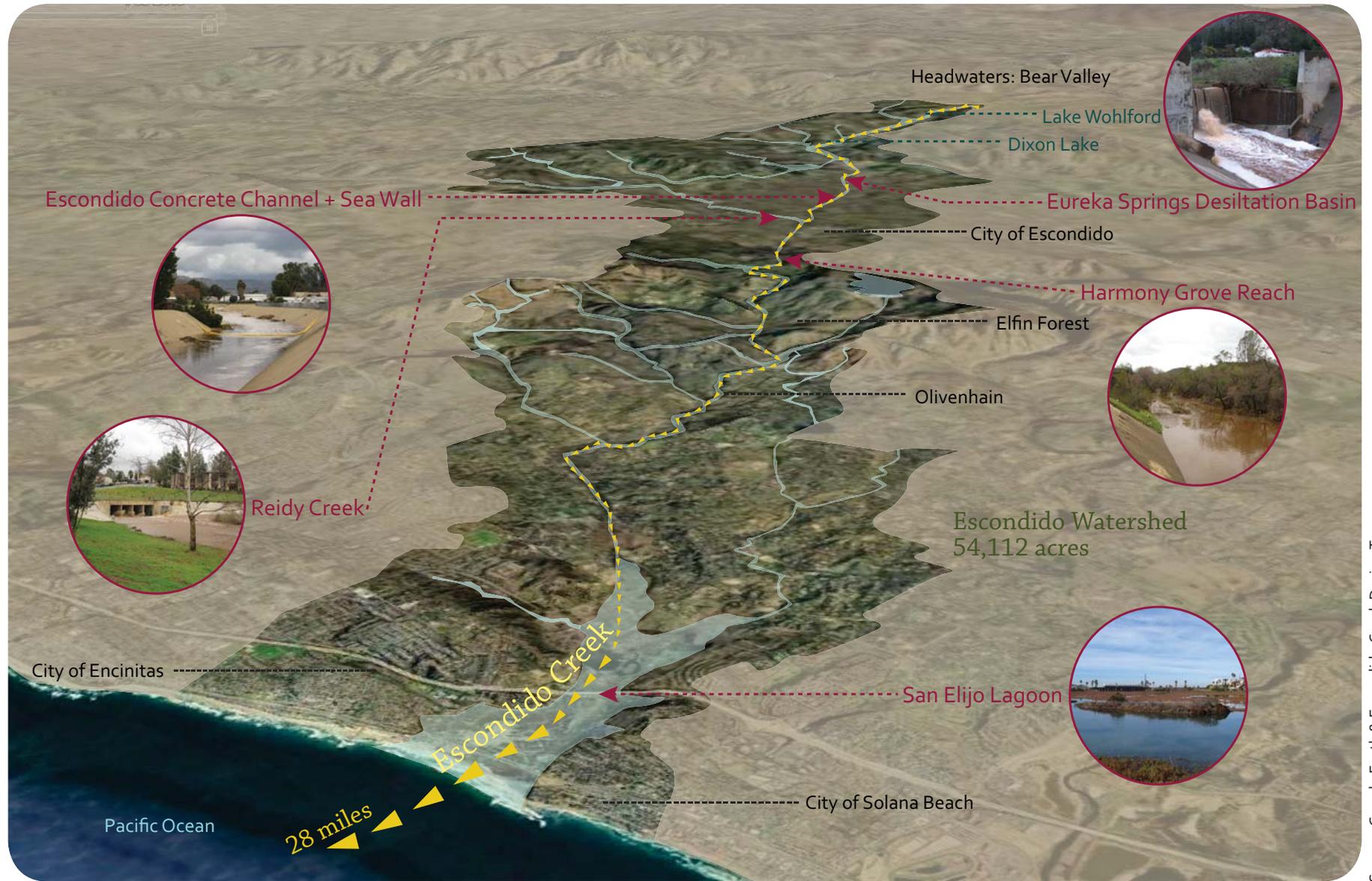
Not only is sediment transport a natural function within a watershed, preventing this function can be costly. Two sites at the mouth of the Escondido Creek were named in a 2007 regional beach sand replenishment feasibility study as sites in need of sand replenishment (Moffatt & Nichol 2007). However, artificially replenishing the beaches with sand lost to watershed barriers is costly. The 2007 study estimated the regional project expenses to be \$32 million (Moffatt & Nichol 2007). Restoring sediment transport in the Escondido Creek Watershed, where feasible, would improve the environment and could create an economic, as well as ecological, balance.



Source: Escondido Creek Design Team

Figure 3.16 Example of Detention Basin

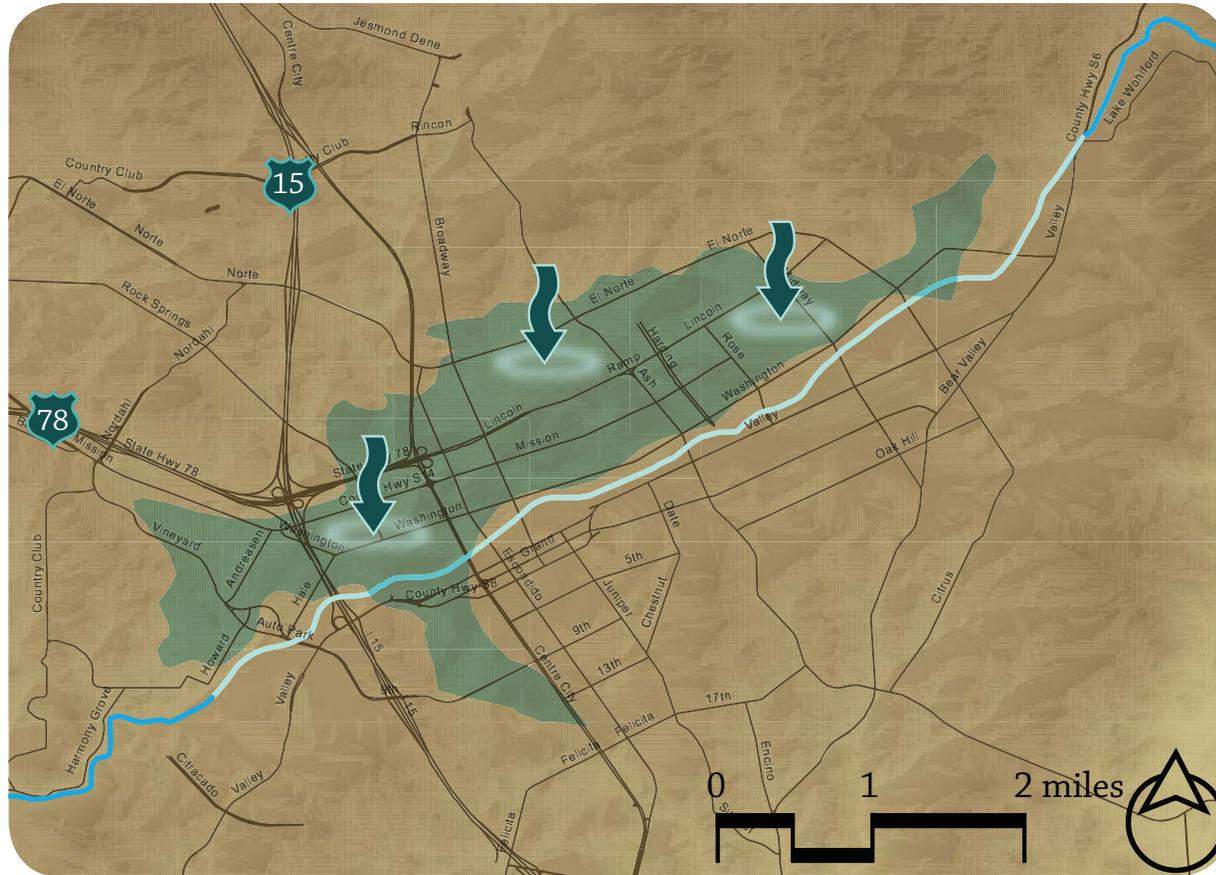
Bio-Physical: Process



Source: Google Earth & Escondido Creek Design Team

Figure 3.17 Escondido Creek Watershed Sediment Transportation

Bio-Physical: Groundwater Basin



Source: SanGIS

Figure 3.18 City of Escondido Groundwater Basin within City Limits

-  Channelized Creek
-  Natural Creek
-  Escondido Valley Groundwater Basin
-  Location of Groundwater Recharge

The Escondido Valley Groundwater Basin is located partially within the city limits of Escondido and is drained by the Escondido Creek (see figure 3.18). Groundwater within this unmanaged basin is generally found at less than 50 feet deep in weathered bedrock and deeper crystalline rock formations (California Department of Water Resources (DWR) 2004). While the estimated capacity of the basin is thought to be 24,000 acre-feet and average well yields are roughly 50 gallons per minute, annual production as well as quantity in storage are unknown (DWR 2004). Testing of the groundwater in the basin reveals high levels of nitrates, sulfites and dissolved solids, which leads basin groundwater to be categorized as inferior for domestic use (DWR 2004).

Bio-Physical: Flora & Fauna

The Escondido Creek Watershed supports an abundance of native plant and wildlife species. Twenty-two types of native vegetation communities and 53 sensitive wildlife and plant species have been identified in the watershed (The San Elijo Lagoon Conservancy 2005). The plant communities within the watershed can be categorized into nine generalized vegetation communities within the watershed. They include agriculture, grassland, meadow/seep/bog, non-native/disturbed/urban, riparian, scrub/chaparral, water, wetland, and woodland/forest types (SELC 2005).

At the Watershed Scale

Following is a brief overview of habitat areas within the watershed, starting at the top of the watershed and traveling downstream to the point in which the creek drains into the Pacific Ocean at the San Elijo Lagoon.

The Upper Watershed

Factors related to climate, soil types, and topography create distinctive vegetation communities in the Escondido Creek Watershed. The Multiple Habitat Conservation Program (MHCP), started in 1991 in Northwestern San Diego County, maintains regional conservation goals laid out by the Endangered Species Act. According to the MHCP, five broad vegetation types occur—in order of decreasing proliferation: chaparral, coastal sage scrub, oak woodland, grassland, and riparian habitats (see figure 3.19). These vegetation types occur in five core habitat areas on the outer edges of Escondido (Escondido Subarea Plan 2001). The dense urban development at Escondido's core creates this distribution which has left the outer fringes in more or less a natural state (Escondido Subarea Plan 2001). Multiple endemic, rare, and endangered plant



Figure 3.19 Flora & Fauna Section

Bio-Physical: Flora & Fauna

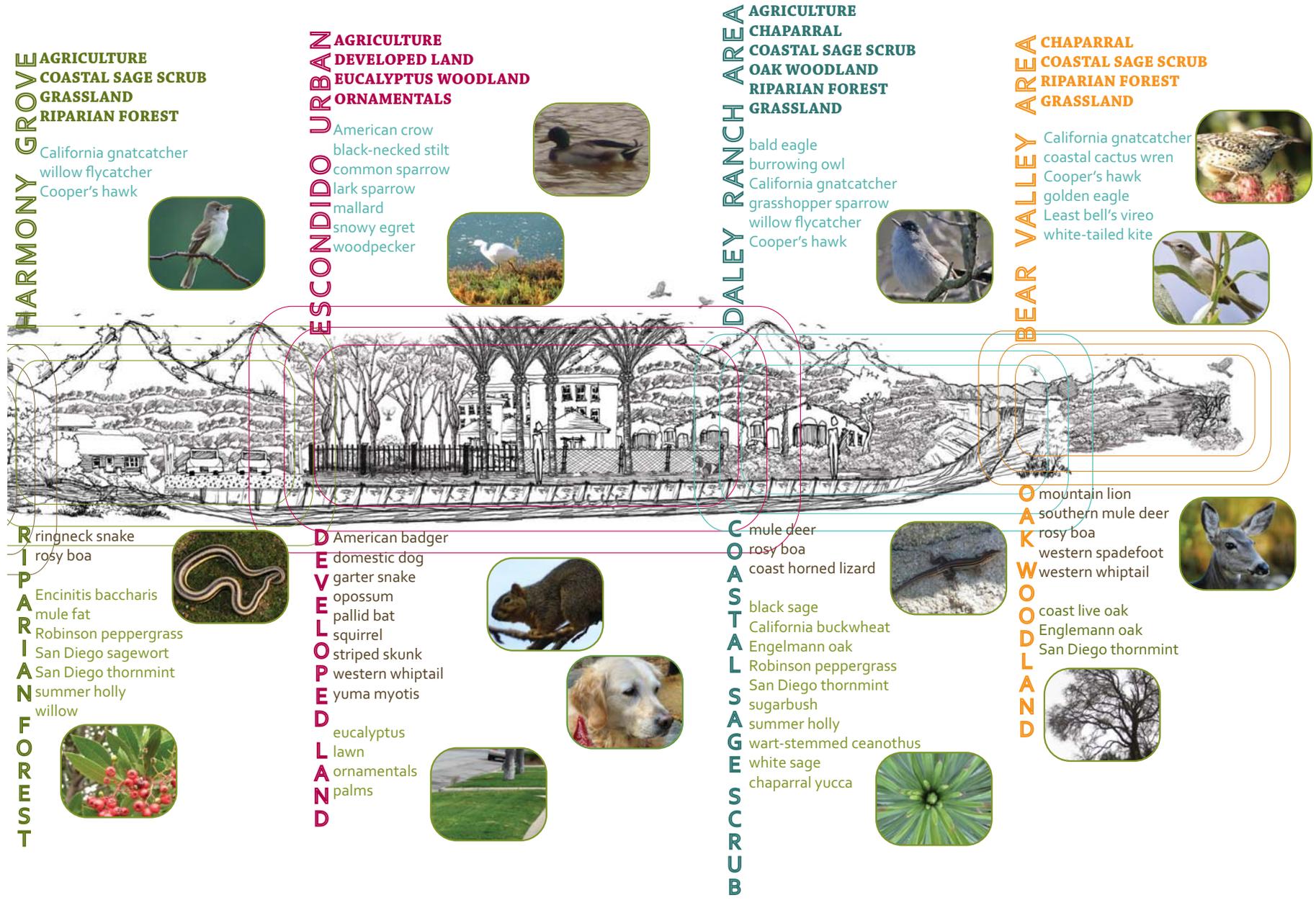


Photo Source Clockwise from Top Left: Katie McNiel (KM), KM, Arthur Morris, Kelly Azar, KM, KM, Glen Tepke, Leah Baltazar, Bill Bouton, Ron Kube, KM, Jim Mullhaupt, KM, KM, KM, KM, Alan Cressler, KM, Guy Bruyey, KM, KM, Raphael Mazor, Different Apple

Bio-Physical: Flora & Fauna

and animal species live in these areas and provide the city and region with an important resource.

On the local level, Escondido supports 9,200 acres of natural habitats out of the total 24,600 subarea acres (Escondido Subarea Plan 2001). As one travels downstream, the Elfin Forest Recreational Reserve consists mostly of coast live and Engelmann oak woodlands with riparian forests running along the creek (SELC 2005). It supports a wide range of animal and plant species that are both sensitive and endangered.

The Lower Watershed

The lower watershed has several features, in addition to the lagoon, that are important to habitat: the lagoon, the freshwater marsh, the saltwater marsh, the freshwater streams, the coastal strand, and the dry slopes of the coastal bluffs. San Elijo Lagoon is 12 miles down the Escondido Creek from the City of Escondido (see figure 3.17). The lagoon sustains more than 23 species of fish, 20 species of reptiles and amphibians, 24 species of mammals, 296 species of bird, and six vegetation communities (SELC 2005). The lagoon is an important connection to the creek because it supports many diverse species and links to the ocean and tidal dunes.

A line of dense vegetation can be seen as demarcating the path of the water on aerial photographs. This vegetation is known as riparian scrub. The riparian scrub, occurring just at the edge of the San Elijo Lagoon, supports semi-aquatic, sometimes dense and tall trees and shrubs, on sandy washes of seasonal freshwater streams. Surrounding types of vegetation above the streams are usually smaller due to drier soils.

The coastal sage scrub on the rocky, dry coastal slopes surrounding the lagoon receive a minimum of 10-20 inches of precipitation a year (SELC 2005). The open mosaic pattern of fragrant soft shrubs and groundcovers is the defining feature of this vegetation community. Chaparral communities in and out of the coastal sage scrub contain large dense shrubs with leathery leaves and woody stems. They survive wider temperature fluctuation and regenerate after fires.

At the confluence of the Escondido Creek and the lagoon is the freshwater marsh. This marsh dilutes the salt water while emergent plants (rooted plants that emerge above the water surface) grow in the fully saturated soils. Freshwater transitions to saltwater, and the salt marsh receives tidal flushes and supports low-growing halophytes (salt-tolerant plants). Nearest the ocean, in remaining remnants of sand dunes, is the coastal strand which supports plants in permeable sandy soil. The strands receive moisture from coastal fog and plants survive with minimal changes in temperature.

At the City Scale

Following is a more specific overview of habitat areas found in and around the City of Escondido.

Northeastern Habitat Area

The largest most contiguous parcel of natural habitat occurs in Daley Ranch with 3,058 acres of open space, Lake Wohlford, and Lake Dixon (Escondido Subarea Plan 2001). Vegetation communities include chaparral, coastal sage scrub, oak woodland, grassland, and riparian

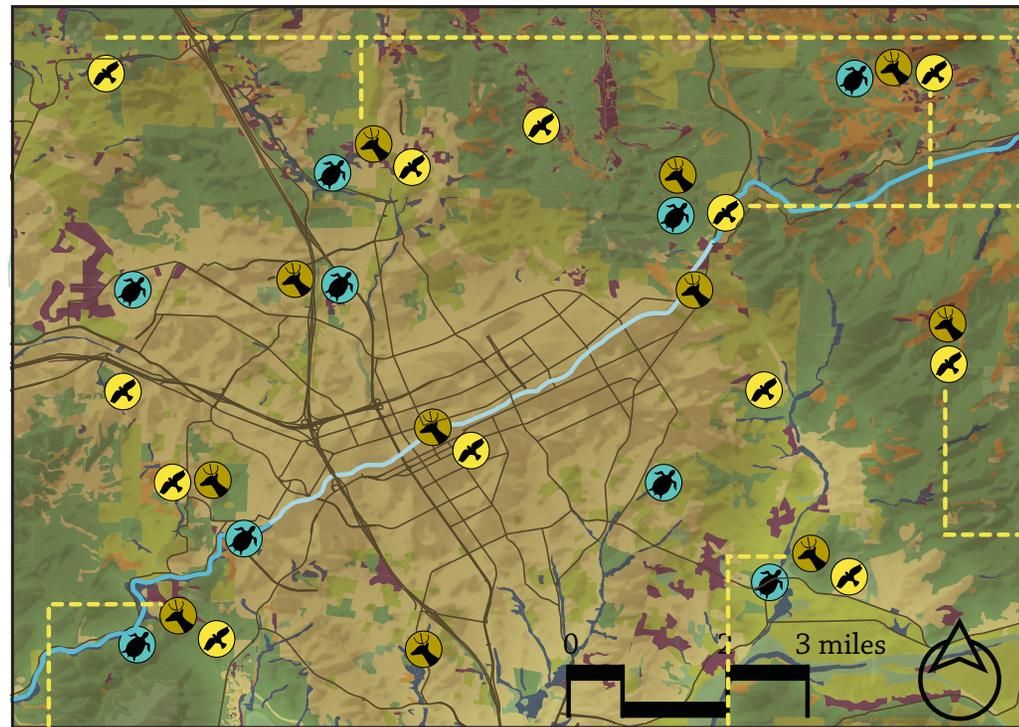


Source: Escondido Creek Design Team

Figure 3.20 Thornmint

habitats (see figure 3.19). Because this area is large and contiguous, it supports wide-ranging species such as the mountain lion (*Felis concolor*), the southern mule deer (*Odocoileus hemionus fuliginata*), and the golden eagle (*Aquila chrysaetos*). Coast live oak (*Quercus agrifolia*) and Engelmann oak (*Quercus engelmannii*) woodlands support Cooper's hawk populations (*Accipiter cooperii*) (SELC 2005). There is only one California gnatcatcher (*Poliptila californica californica*) locality because the area is on the edge of their distribution and has a higher elevation and colder climate than their preferred zone (Escondido Subarea Plan 2001). The water source is another key resource to these wildlife communities.

Bio-Physical: Flora & Fauna



Northwestern Area
 San Diego thornmint
 red diamond rattlesnake
 California gnatcatcher
 grasshopper sparrow

Northeastern Area
 Engelmann oak
 mountain lion
 southern mule deer
 western spadefoot
 western whiptail
 Cooper's hawk
 golden eagle
 California gnatcatcher

Eastern Area
 California gnatcatcher
 coastal cactus wren
 least Bell's vireo
 California rufous-crowned sparrow
 white-tailed kite

Southwestern Area
 mule deer
 Encinitis baccharis
 Robinson peppergrass
 San Diego sagewort
 San Diego thornmint
 summer holly
 western dichondra
 ringneck snake
 rosy boa
 common loon
 California gnatcatcher
 great egret
 rufous-crowned sparrow

Urban Area
 American badger
 big-free tailed bat
 domestic dog
 kangaroo rat
 pallid bat
 pocket mouse
 yuma myotis
 garter snake
 rosy boa
 western whiptail
 mallard
 snowy egret

Southern Area
 San Diego thornmint
 summer holly
 wart-stemmed ceanothus
 coast-horned lizard
 western spadefoot toad
 bald eagle
 burrowing owl
 California gnatcatcher
 San Diego coastal cactus wren
 golden eagle
 great blue heron
 least Bell's vireo
 southwestern willow flycatcher

- Eucalyptus Woodland: 100 acres
- Water/Wetland/Marshland: 350 acres
- Urban/Developed: 13,100 acres
- Agriculture: 2,100 acres
- Chaparral/Coastal Scrub: 7,000 acres
- Grassland: 600 acres
- Riparian Forest/Woodland: 400 acres
- Oak Woodlands: 800 acres
- Channelized Portion of Escondido Creek
- Non-channelized Portion of Escondido Creek
- Major roads
- Mammals
- Reptiles/Amphibians
- Birds

Source: Escondido Creek Design Team

Figure 3.21 City of Escondido Flora & Fauna Map

Bio-Physical: Flora & Fauna

Northwestern Habitat Area

Located on developed land (Escondido Highlands, Country Club Woods, Jesmond Dene Park, and MacLeod Park) and agricultural land, a constrained habitat corridor supports chaparral and coastal sage scrub. This area drains predominately into Reidy Creek, a tributary to the Escondido Creek. Parts of Reidy Creek contain some riparian scrub habitat. Priority species include the California gnatcatcher and the San Diego thornmint (*Acanthomintha ilicifolia*) (figure 3.20) (Escondido Subarea Plan 2001).

Eastern Habitat Area

Largely comprised of Rancho San Pasqual, this area is partially developed and includes the coastal sage scrub vegetation community. Much of this area is outside of the Escondido Creek Watershed but is pertinent to this study in terms of wildlife corridors and linkages that may exist to the watershed. The vegetation community in the Eastern Habitat Area extends into the larger county of San Diego, providing a key regional linkage for flora and fauna (Escondido Subarea Plan 2001). The California gnatcatcher, a threatened species, has been spotted outside the city boundary to the south and east (Escondido Subarea Plan 2001). Coastal sage scrub in this area that lies within city boundaries must be conserved because of the close proximity to breeding and foraging sites for this important species. This area also provides optimal habitat for two other threatened species: the coastal cactus wren (*Campylorhynchus brunneicapillus cousei*) and the least Bell's vireo (*Vireo bellii pusillus*) (Escondido Subarea Plan 2001).



Source: Escondido Creek Design Team

Figure 3.22 Wart-stemmed Ceanothus

Southern Habitat Area

This area also lies beyond the Escondido Creek Watershed, in the San Dieguito Watershed, but is significant because it is one of the larger continuous blocks of habitat in San Diego County, resulting in an important east to west regional linkage/corridor along the San Dieguito River (Escondido Subarea Plan 2001). Along the west end of San Pasqual Valley, the north shore of Lake Hodges, and around Kit Carson Park, this area contains a patchy distribution of coastal sage scrub, chaparral, riparian habitats, and oak woodlands (Escondido Subarea Plan 2001). Flora and fauna include the wart-stemmed ceanothus (*Ceanothus verrucosus*) (figure 3.22), the California gnatcatcher, and the coastal cactus wren (listed as a critical location

in the MHCP). In the riparian habitat and floodplain areas, wildlife consists of raptors (burrowing owl (*Speotyto cunicularia hypugaea*), golden eagle, and northern harrier (*Circus cyaneus*)); shorebirds (long-billed curlew (*Numenius americanus*) and mountain plover (*Charadrius montanus*)); and riparian woodland birds (least Bell's vireo and southwestern willow flycatcher (*Empidonax traillii extimus*)). The California gnatcatcher and least Bell's vireo inhabit the area near Kit Carson Park (Escondido Subarea Plan 2001). Three creeks, tributaries to the San Dieguito River, also run through this site, which provide patches of riparian forest habitat.

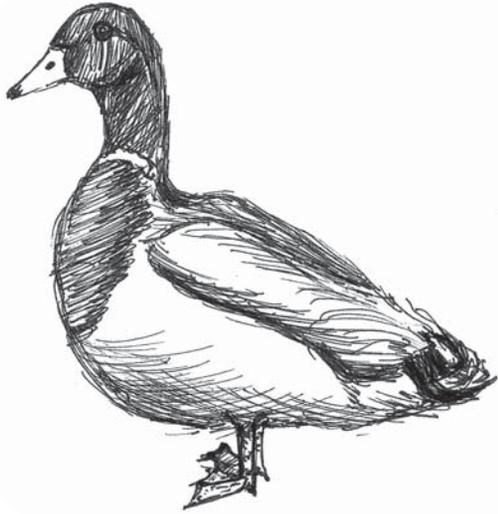
Southwestern Habitat Area

This property contains both private (Montreux, Del Dios and Quail Hills industrial area) and public parcels. Coastal sage scrub is the dominant plant community, in addition to chaparral, and small portions of oak woodland and riparian forest. The Escondido Creek runs through the sites and is constrained by existing development. The habitat supports California gnatcatchers but does not provide any regional connections (Escondido Subarea Plan 2001). In the Mountain Israel and Del Dios area, Encinitas baccharis (*Baccharis vanessae*), a federally and state listed endemic plant species, grows.

Highlighting Sensitive Species found around the City of Escondido

There are 32 animal and 15 ecologically sensitive plant species that occur or could occur in Escondido (Escondido Subarea Plan 2001). Areas that are critical to the survival of these sensitive species are significant corridors, linkages, and nesting sites. Three federal and state listed endemic species include San Diego

Bio-Physical: Flora & Fauna



Source: Escondido Creek Design Team

Figure 3.23 Mallard

thornmint in Emerald Heights and Encinitas baccharis and the potentially occurring thread-leaved Brodiaea (*Brodiaea filifolia*) in Mountain Israel/Del Dios. Major populations of San Diego thornmint, wart-stemmed ceanothus, summer holly (*Comarostaphylis diversifolia ssp. diversifolia*) and Engelmann oak exist and are priority species within the MHCP. Six sensitive animal species are supported within Escondido including the coastal cactus wren, Harbison's dun skipper (*Euphyes vestris harbisoni*), burrowing owl, southwestern pond turtle (*Clemmys marmorata pallida*) (figure 3.24), Cooper's hawk, and golden eagle.

Habitat Loss & Fragmentation in the City of Escondido

Land uses in the Escondido area and the concrete channel of the Escondido Creek have caused habitat

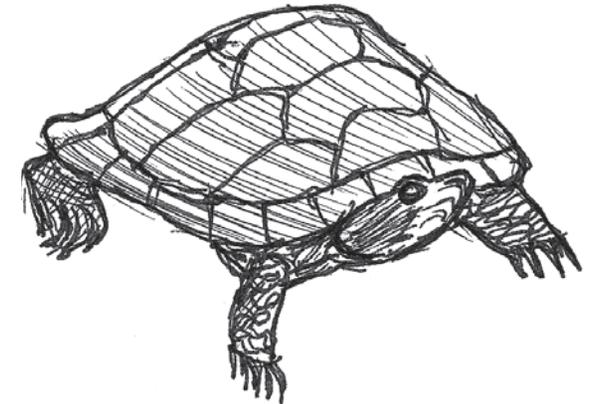
loss and fragmentation. Many invasive species exist along the Escondido Creek including tamarisk (*Tamarix sp.*), eucalyptus (*Eucalyptus spp.*), and giant reed (*Arundo donax*) which reduce water quality and choke out existing native habitat (SELC 2005). These invasive monoculture stands do not provide a canopy cover to shade the creek, thereby increasing water temperatures and leading to eutrophication (fish kills occur due to algae blooms and a decrease in oxygen) (SELC 2005). Native vegetation along the Escondido Creek provides habitat for a diversity of species, some rare and threatened. Wildlife species are reliant upon native vegetation for shelter, food and nesting. However, much of this vegetation and habitat has been lost by land development (KTU&A Merkel 2002).

Three large areas of remaining natural habitat near the city are: Lake Wohlford, Daley Ranch, and the hills along San Elijo Canyon southwest of Escondido. These lands do not border one another and are poorly connected by low quality wildlife corridors (KTU&A Merkel 2002). Important conservation measures protect Daley Ranch and much of San Elijo Canyon. Conservation in all three of these areas should be prioritized. The stream, once a wildlife corridor, lacks native vegetation within city limits, diminishing its usefulness as a wildlife linkage. Biological diversity will be improved with the conservation and preservation of large contiguous parcels of natural drainageways, wetlands, vegetation habitat areas, and wildlife habitat features (Escondido General Plan 1990). Biological diversity is a nonrenewable

resource that contributes to our success as a species (Center for Biological Diversity 2010).

Land Use Impacts to Vegetation Communities

Land uses, such as agriculture and urbanization, impact the health of the creek and threaten diversity. Escondido consists of large areas of agricultural land. Herbicides, pesticides, fertilizers, and animal excrement are associated with this land use type. Runoff polluted by agriculture flowing into drainageways leads to algae blooms, habitat destruction, and decreased water quality (SELC 2005). Urban runoff flushes toxins such as motor oil, auto fluids, paints, and other solvents into the watershed (Escondido General Plan 1990). Preventative policy measures must be employed at the regional watershed level to stop non-point and point source pollution. Integral to the health of the watershed, the reach of the Escondido Creek within the City of Escondido can play a significant role in supporting and restoring the watershed (Escondido General Plan 1990).



Source: Escondido Creek Design Team

Figure 3.24 Southwestern Pond Turtle

Socio-Cultural Setting: Population Distribution

The upper reaches of the watershed in the Lake Wohlford area are the most sparsely populated, containing small pockets of rural-residential housing, areas of agriculture, ranches and orchards. The largest population concentrations lie primarily in the middle basin of the watershed in the Escondido hydrologic subarea along the Escondido Creek corridor (see figure 3.25). Residential density thins dramatically at the southwestern edge of the city as the creek flows into the San Elijo Canyon area. The hillside landscape along the creek corridor is dominated by large lot residential and single family residential throughout the San Elijo Canyon as the creek passes by the jurisdictional boundaries of the City of San Marcos. In the lower reaches of the watershed in the cities of Encinitas, Solana Beach and the incorporated areas of San Diego County, surrounding the area of San Elijo Lagoon, the population again increases west to the coastal beach communities.

Within the City of Escondido, population density is greatest in the valley floor along the creek east of the Interstate 15 corridor. Within the city boundaries, the lowest population density exists in the industrial and manufacturing areas near the interstate 15 and highway 78 interchange. Equally low in population are the outlying hilly areas to the north and west.

According to the SANDAG 2009 population estimates, Escondido has a population of 144,831 people, reflecting an 8% growth from the prior period. Escondido has a housing stock of 47,584 units (SANDAG 2009). Median household income is \$59,953 (in current dollars), which is lower than San Diego County's median income per household of \$68,470 (in current dollars) (SANDAG 2009).

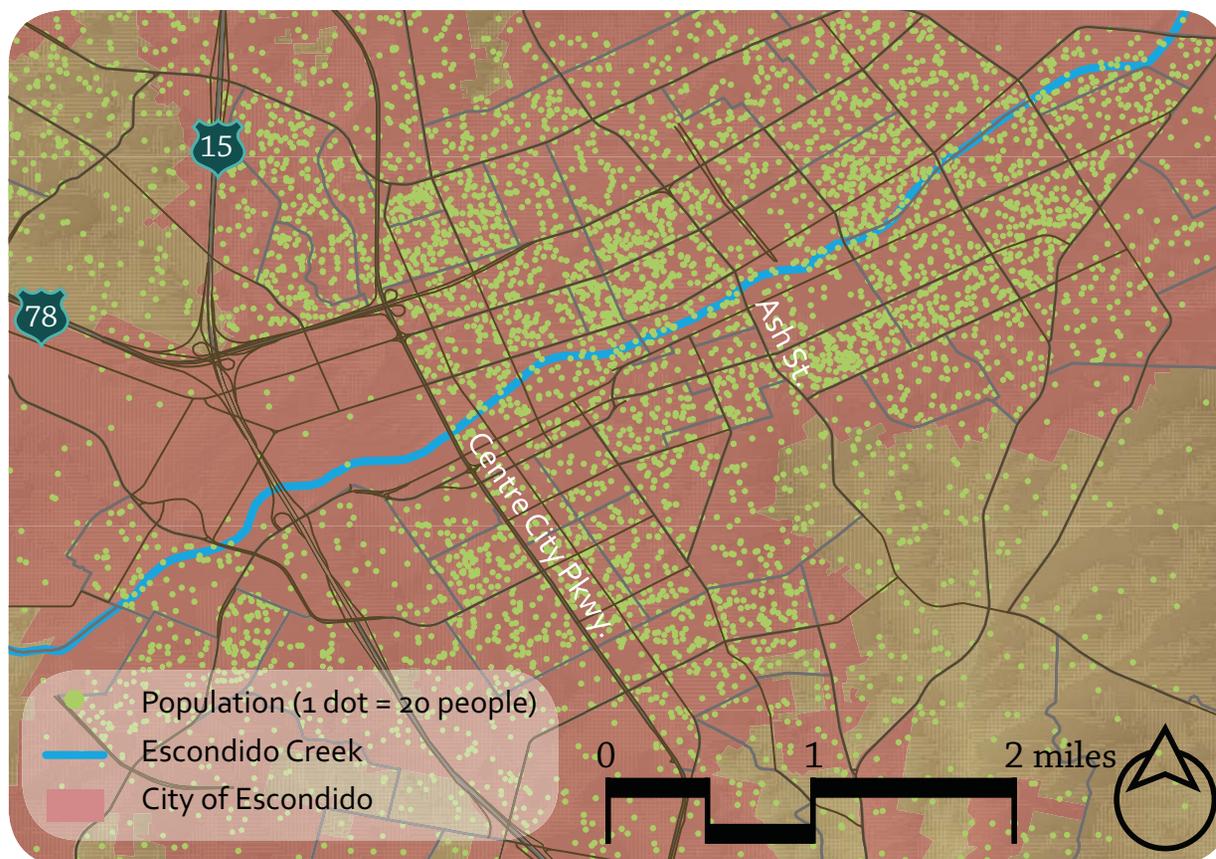


Figure 3.25 Population Distribution in Escondido

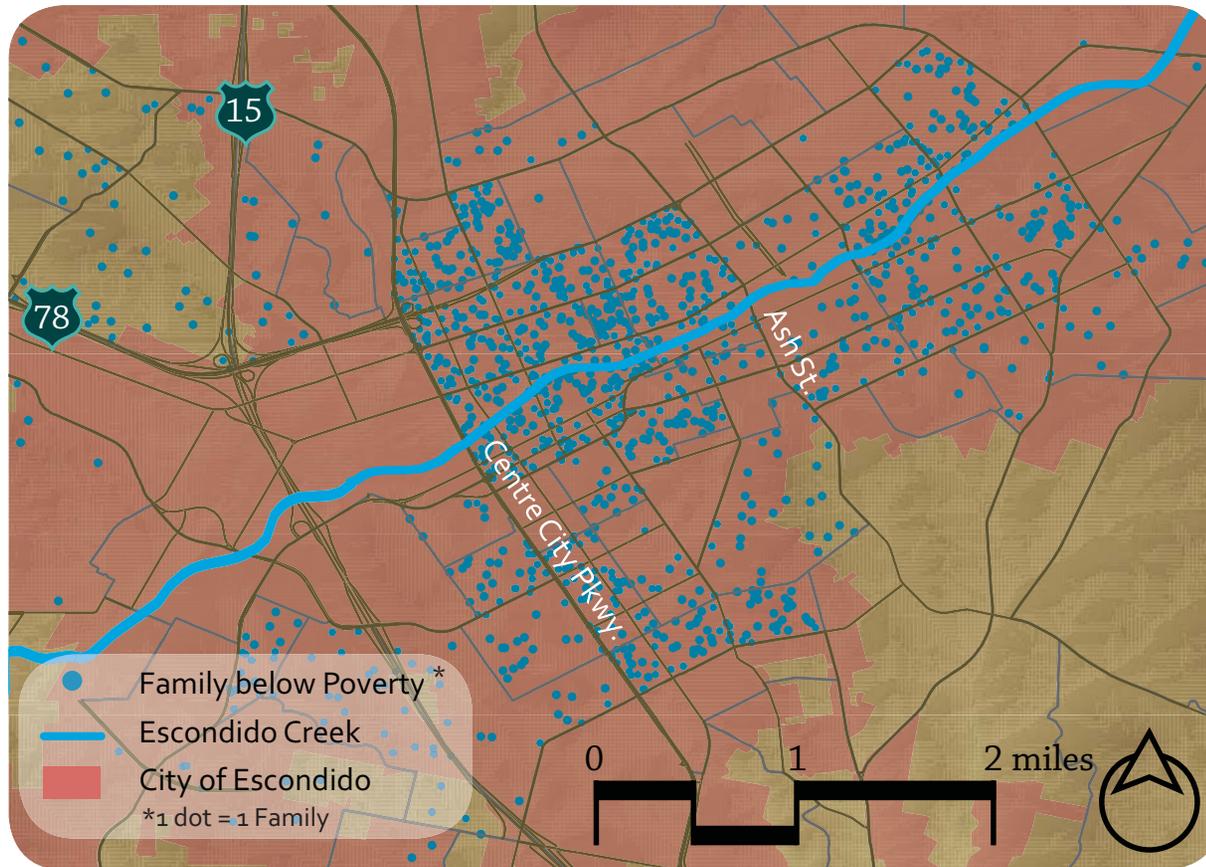
Source: SANDAG

Escondido has two distinct majority populations: white and Latino. These two groups are equally proportioned representing 90% of the population—45% white and 45% Latino (SANDAG 2009). The remaining ethnic populations are much smaller: 5% are Asian, 2% are African American, less than 1% are Native American, less than 1% are Pacific

Islander, less than 1% are from other races, and 3% are identified as two or more races (SANDAG 2009).

The demographic of Escondido can be divided into two geographic areas: the relatively wealthy population, predominately non-Latino whites, is located at the peripheral hilly areas to the north, southeast, and southwest of the city, and the less

Socio-Cultural Setting: Demographics



Source: SANDAG



Source: Escondido Creek Design Team

Figure 3.26 Family Below Poverty in Escondido

Figure 3.27 Housing Near Escondido Creek Trail

affluent population is mainly concentrated centrally in the valley, downtown, and along the Escondido Creek area (see figure 3.26) (SanGIS 2004). As the map in figure 3.26 indicates, families below the poverty line are highly concentrated along Escondido Creek, especially between City Centre Parkway and Ash Street.

These high density, low income communities adjacent to Escondido Creek would especially benefit from a revitalized Escondido Creek and Trail. Not only is this asset in their backyard with additional landscape areas, but many people in these communities use the Escondido Creek as a transit corridor to work or the transit station since many people lack private cars and rely on public transit or non-motorized transportation.

In addition, people within these communities would greatly benefit from communal gardens where they could grow and share their own produce and provide increased food security. With a high concentration of population in this area, access to open space is crucial to promote a healthy living environment.

Socio-Cultural Setting: Lifestyle

Once in Motion

Since the late nineteenth century, Southern California has witnessed a doubling and tripling of its population and the City of Escondido's population has kept pace with its regional neighbors (see figure 3.29). People have immigrated to the area in pursuit of a better climate, better living conditions, and better opportunities than those available in the Midwest and East Coast (Bottles 1987). The influx increased Escondido's population from 755 people in 1900 to 133,559 people in 2009 (City of Escondido 2009). Average this growth rate over the years and these figures indicate Escondido doubles its population approximately every 14 years. Growth has been tremendous, however, the greatest periods of growth in Escondido occurred in the second half of the twentieth century in which the population increased by 2,041% from 6,544 residents in 1950 to 133,559 residents in 2009 (City of Escondido 2009, Escondido History Center 2009).

Escondido's farm industry waned by mid-century and the area converted from farm town to bedroom community (McGrew 1988). Dependence on the car increased as Escondidans were living further from places of business, worship, and schools. US Census data indicates over half the residents of the North County East Major Statistical Area (MSA), the Major Statistical Area Escondido is located within, commute outside of their resident MSA to work (SourcePoint 2004). Nearly 20% of residents in the North County East MSA commute south to San Diego communities such as Clairemont, Poway, and Rancho Bernardo and 18% of residents in

the North County East MSA commute west to the North County West MSA including the coastal cities of Oceanside, Carlsbad, and Encinitas (SourcePoint 2004). As an example of commute times, the morning commute to San Diego, approximately 40 miles south, averages 45 minutes from Escondido, and Carlsbad, approximately 20 miles northwest, is roughly a 40 minutes commute (Google Maps 2010).

Southern California has been a place of transition since the influx of population in the late nineteenth century and today's population is more mobile than ever. People following jobs and the supply of housing move across the Southern California landscape, shifting in hopes of finding a bigger, better, newer, and cheaper home. New communities spring up across the landscape at a frenetic pace luring the population from one Southern California town to the next. Escondido has experienced this shift, watching older residents move out as new residents move in. The challenge in Southern California is

engaging newcomers in their local communities and educating them on the heritage and sensitivity of the environment.

Escondido has a culture comfortable with an active lifestyle. Escondidans enjoy outdoor activities and the mild climate is supportive of their interests. Park picnic areas on weekends are at a premium as Escondidans gather for fiestas, while sports fields and trails teem with locals taking an opportunity to recreate. San Diegans are known for their "laid-back" casual style and this informality also resonates with its northern neighbors in Escondido.



Figure 3.28 Soccer Players at Grape Day Park

Source: Escondido Creek Design Team

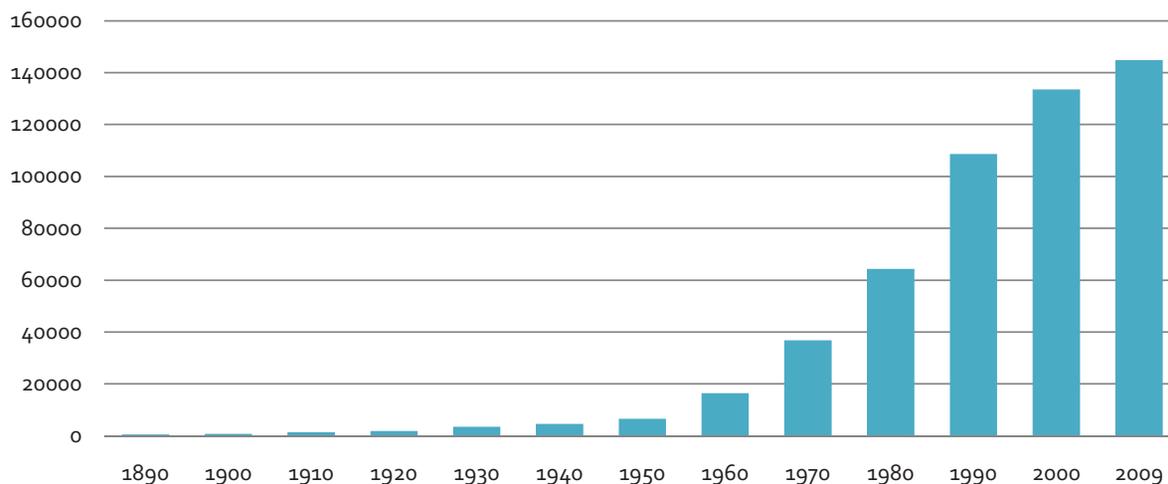


Figure 3.29 Escondido Population Growth

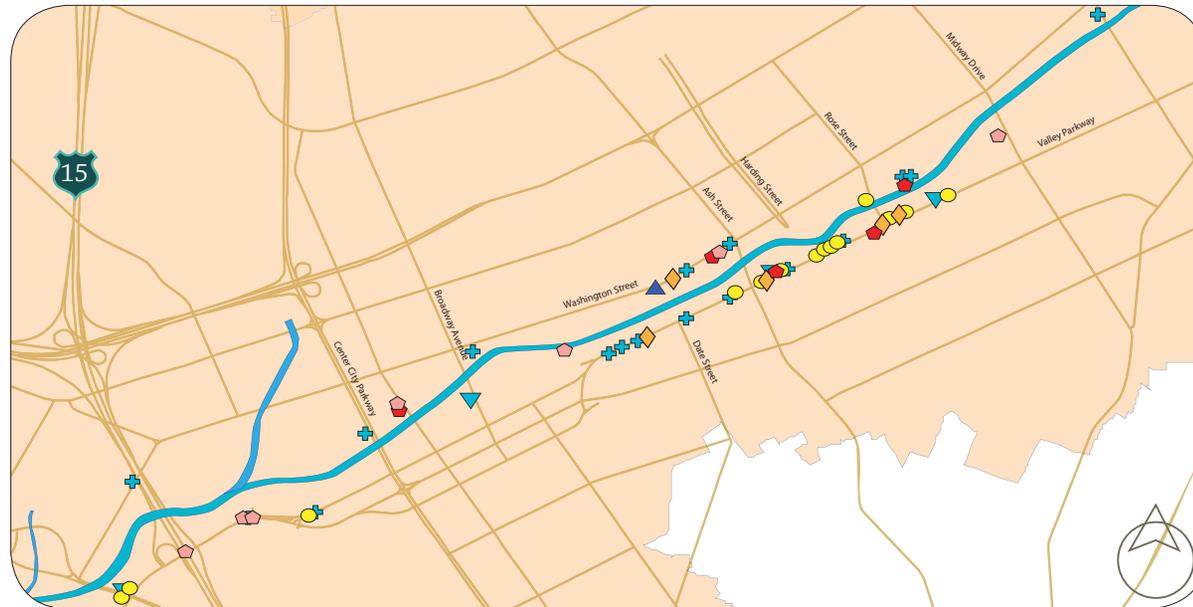
Source: US Census & City of Escondido

Socio-Cultural Setting: Crime & Safety



-  Aggravated Assault (non-DV)
-  Simple Assault (non-DV)
-  Robbery
-  Residential Burglary
-  Commercial Burglary
-  Malicious Mischief/Vandalism
-  Theft

Source: Uniform Crime Report



Along sections of the Escondido Creek corridor, crime and perceptions of personal and public safety are major concerns. According to the 2009 analysis of the Uniform Crime Report (UCR), an official tally of crimes reported to the Federal Bureau of Investigation by law enforcement agencies, Escondido has a crime rate just slightly higher than the national rate for cities with populations greater than 75,000, ranking 232 out of nearly 400 (CQ Press 2009). This ranking was improved from the previous year's rank of 209. The crimes tracked by the Uniform Crime Report (UCR) are murder, rape, robbery, and aggravated assault and the property crimes of burglary, larceny-theft, motor vehicle theft, and arson. These eight crimes are compiled by the UCR from voluntary information provided by city, county, state, federal and tribal law enforcement agencies throughout the country.

Figure 3.30 2010 Winter Crimes (Top); 2010 Summer Crimes (Bottom)

Socio-Cultural Setting: Crime & Safety

According to the UCR crime statistics available from the Escondido Police Department, during 2008 (the latest year for which complete statistics exist), the City of Escondido experienced four homicides, 31 rapes, 82 armed robberies, 113 strong arm robberies and 337 aggravated assaults (Escondido Police Department 2010). Property crimes make up the largest portion of the crimes committed in Escondido. Residential and commercial burglaries account for 464 and 434 reported crimes, respectively. There were just over 2400 accounts of larceny, both petty and grand larceny (less than and over \$400, respectively).

Figure 3.30 shows the type and location of crimes committed along or near the creek during two seasons of the 2009 year: winter and summer. Winter is defined for the purposes of this map as December 28 to March 27; summer is from June 1 to August 31. Since the creek trail does not have definite physical addresses, when noting the location of crimes committed along the creek, the Escondido Police Department places the specific location of the crime to the nearest cross streets or recognizable address in the vicinity of the creek. For this reason, crimes reported within one city block adjacent to the creek and flood control channel may or may not have been committed along the creek and trail. For example, an assault occurring at the Date Street Pedestrian Bridge or a burglary occurring at the store at 850 East Valley Parkway could be reported with the same location, obscuring the actual location of the incident. It is important to note that these statistics are used to indicate a general sense of the type and frequency of crimes but may not be a direct reflection of crime along the creek channel.

Between the two seasons, crime rates are similar with the exception of malicious mischief which sees an increase during the summer months. This may be due

to the longer days, warmer temperatures and school break. As the map indicates, incidents of crime are concentrated to a one-and-a-half mile stretch along the creek in the Mission Park neighborhood between Broadway and Rose Street. Relatively low crime is reported in the vicinity of the creek corridor for the remaining five miles along the creek corridor and trail.

According to the team's observations and from conversations with local law enforcement, the majority of crimes along the creek trail are malicious mischief (graffiti and vandalism) (see figure 3.31) and robberies (strong armed robberies and muggings) (see figure 3.32). As one would expect, the crimes of theft and commercial burglary are largely confined to the commercial areas around Rose Street and Valley Parkway while the crimes of assault and robbery are more prevalent in the areas with high pedestrian traffic such as Date Street and Grape Day Park.

In order to gain a better understanding of the residents' feelings about the creek trail, the design team conducted a survey of the community. During the survey respondents were asked to rank the relative importance of seven creek-related concepts. Items ranged from amenities available along the creek trail to water quality, environmental issues, visitor experience, habitat/wildlife, aesthetics and safety. Survey participants responded by a nearly two to one ratio that safety was the most important issue relative to the trail. Clearly public perceptions are that the creek trail is not safe, especially at night (see figure 3.33). Discussions with local law enforcement officials reinforced this assessment; however, the crime reports indicate these concerns are largely localized between Broadway Street and Rose Street.



Figure 3.31 Graffiti along Bike Trail

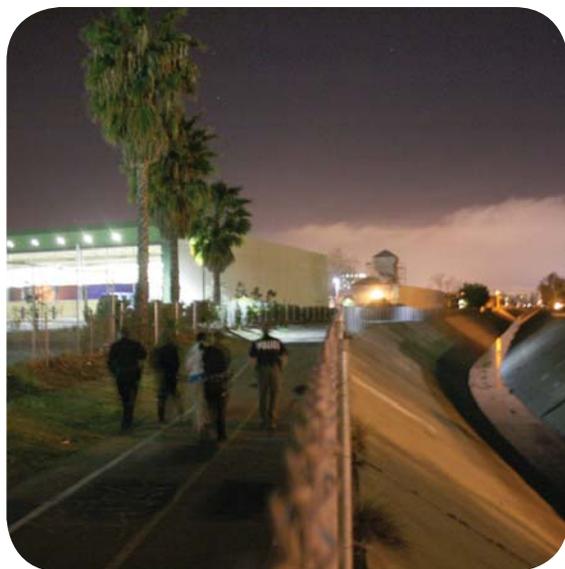
Source: Escondido Creek Design Team



Figure 3.32 Stolen Cash Drawer Next to Bike Trail

Source: Escondido Creek Design Team

Socio-Cultural Setting: Crime & Safety



Source: Escondido Creek Design Team

Figure 3.33 Bike Trail at Night



Source: Escondido Creek Design Team

Figure 3.34 Police Patrol

In spite of the city's best efforts to attend to the graffiti and law enforcement's continued vigilance, signs of gang activity are persistent (see figure 3.34). These elements are indicators of a place to be feared. According to Nasar and Jones (1997), graffiti and vandalism act as cues that promote the perception of "social and physical incivilities" that lead to judgments of low security. Wilson and Kelling (1982) linked community disorder and crime: "one unrepaired window is a signal that no one cares" and untended properties become "fair game for people out for fun or plunder" (p. 3). This leads to a further breakdown of communal barriers, community controls, mutual regard and civility in the area, leading ultimately to an overall lowering of confidence in the safety of the neighborhood (Wilson & Kelling 1982).

Public perceptions of safety not only come from incivility cues, but from the feelings of entrapment people experience when using a trail as a result of fences and gates. Users of a trail need not see another person to feel unsafe, as limited points of access and escape are sufficient (Nasar & Jones 1997). From the point of view of a potential victim or user of a trail, places appearing difficult to escape from the heightened feelings of fear (Nasar & Fisher 1993). Gates located at street crossings on the creek trail are locked at sundown and continuous fencing stretches along the length of the trail.

Offenders make decisions about when and where to commit crimes based on rational calculations. The physical surroundings factor into those calculations and influence their decisions about the best places to commit crimes. Offender rationale considers the amount of effort required to commit a crime, the benefit of committing a crime and the risk posed

to the offender (Taylor & Harrell 1996). Newman's (1972) theory of "defensible space" postulates spaces that are easily visible to people in the neighborhood are less likely to appear conducive to criminal behavior. These concepts have evolved over time into Crime Prevention through Environmental Design (CPTED), which argues that fear of criminal activity, as well as actual crime, can be reduced with targeted design (City of Virginia Beach 2000). The four basic design elements of CPTED are natural surveillance, natural access control, territorial reinforcement and maintenance.

Natural surveillance refers to the ability of nearby residents or users to see other people in a site or design setting. Criminals are deterred from committing crimes when they sense that they can be easily seen and identified. Natural access controls are hard elements that deny access such as doors, fences and gates. These elements can deter criminals from targeting a site by providing barriers to easy entrance and escape. Territorial reinforcements are the subtle cues that aid people in understanding boundaries between public and private, such as sidewalks, landscaping or porches. Maintenance provides people with the idea that a space is cared for and "matters." Maintenance projects a sense of order and control and gives a sense physical incivility is not tolerated.

Socio-Cultural Setting: Crime & Safety

Public safety

Non-crime related issues of public safety are also a major concern for users of the Escondido Creek Trail. The creek trail bisects residential neighborhoods, commercial districts, low-income neighborhoods, the downtown area and the civic heart of Escondido. Of the more than one-dozen instances where the creek trail intersects a city cross street, there is not a single crosswalk (see figure 3.35 and 3.36). In many cases these unmarked intersections are in close proximity to public parks, schools and churches. In more than one instance the creek trail intersects busy four-lane traffic corridors.

While Federal Highway Administration studies have shown no quantifiable evidence that crosswalks alone improve pedestrian safety, crosswalks in conjunction with other traffic calming measures have proven to be effective (Zegeer, Stewart, Huang, Lagerwey, Feaganes, & Campbell 2005). Raised crosswalks and medians, traffic signals, adequate overhead lighting, traffic islands, and signage, when installed at marked intersections, can improve public safety at uncontrolled locations (Pedestrian and Bicycle Information Center 2010).

In the heart of the civic center in downtown Escondido, between Broadway and Quince Street, there is a discontinuity in the bike trail, referred to in this study as the “Missing Link” (see figure 3.37). This Missing Link marks an abrupt end to the bike trail, depositing users onto surface streets with no clear continuation of the creek trail. This situation compromises the safety of users by forcing them to use surface streets through a series of busy and congested intersections. The lack of signage or other bicyclist and pedestrian amenities addressing



Figure 3.35 Sign Guiding Pedestrians to Nearest Crosswalk

Source: Escondido Creek Design Team

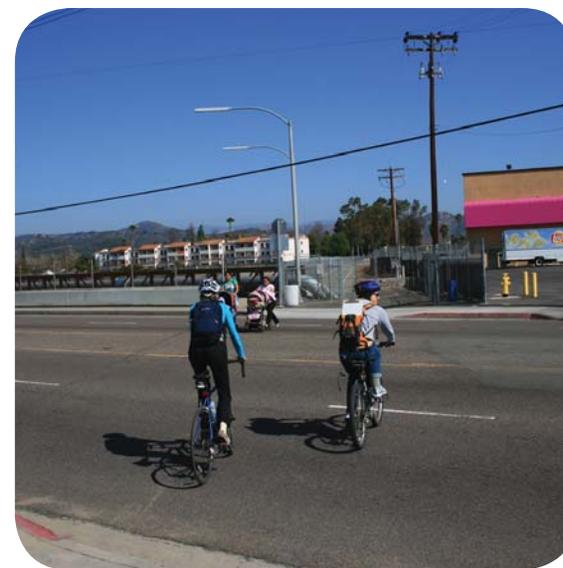


Figure 3.36 Missing Crosswalk

Source: Escondido Creek Design Team

this issue discourages the full use of the Escondido Creek bike trail.

Finally, other safety measures such as police call boxes and lighting are worth exploring. Many municipalities, college campuses, parks and recreation areas make use of these strategies to improve public safety. The inclusion of corridor lighting would improve the safety of the corridor during the winter months when the days are short.

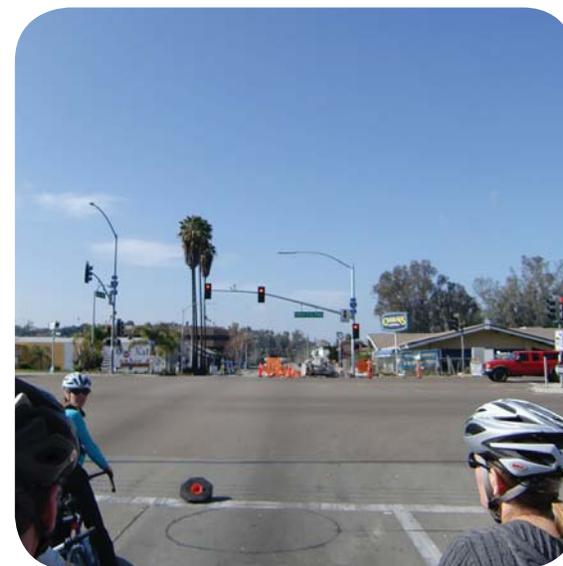


Figure 3.37 “Missing Link” at Broadway

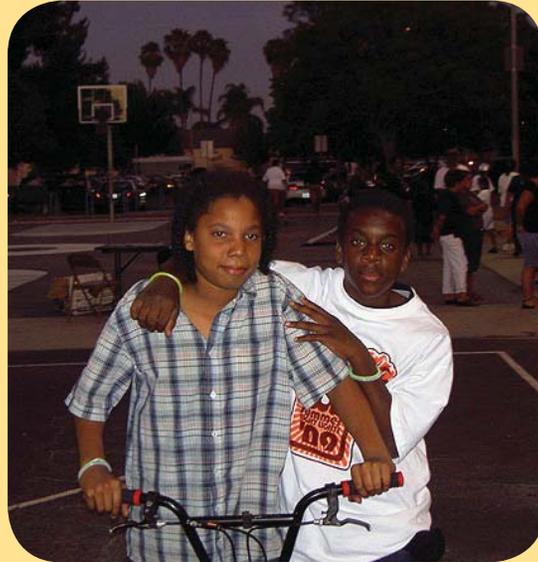
Source: Escondido Creek Design Team

Case study: Los Angeles's success reducing crime by keeping parks open late

In the summer of 2008 Los Angeles launched a program to keep a number of parks in traditionally violent and crime afflicted neighborhoods open during the hours in which most crimes occur. This innovative anti-crime initiative was geared toward reclaiming parks in neighborhoods where gang activity was typically high. The program, called Saturday Night Lights (SNL), started with 11 parks, one school site and four housing developments. The program not only extended the operating hours of the parks, but also included free food and expanded programming. In 2008, SNL's first year, the program contributed to a dramatic decrease in violent crime, helping make that summer the safest since 1967 (City of Los Angeles 2010).

The program also engages young people in the community by employing them to staff the concessions and run the programs. By engaging the most at-risk members of the community, the program encouraged community participation, and provided the young people with income. Teen participants generally earned about \$3,500.00 throughout the summer and were taught to open bank accounts and use the money wisely (Tyler 2009).

In this new approach to crime prevention in Los Angeles, a city in which nearly half of the homicides are gang related killings, gang members were not excluded from the sites. Gang intervention specialists were present in all of the parks and worked with the gang members to help them "rewrite the narrative"

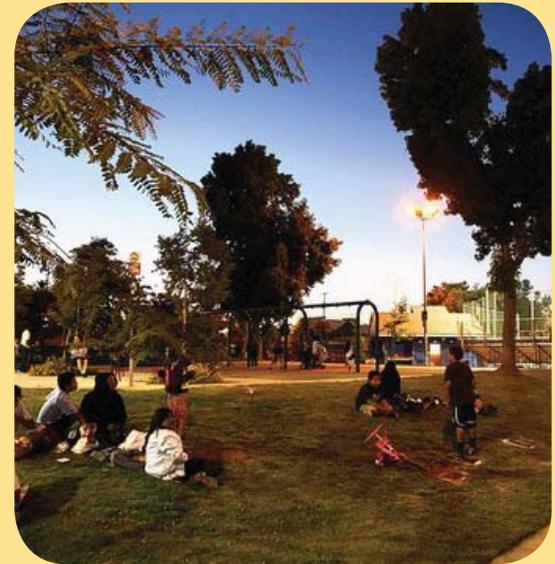


Source: Jeff Tyler/Marketplace

Figure 3.38 Teens at Jim Gilliam Park in Southwest Los Angeles

of their lives (Cathcart 2009). In the city's most dangerous park, the program yielded a 32% decrease in 2008 and a 72% decrease in 2009 in gang related crime. The program has received national attention and recognition and is expected to grow to include 50 sites by 2014 (City of Los Angeles 2010).

During the nine weeks of programming in 2009, there was an average of 50,000 visits to program sites, with over 250,000 meals served. An estimated 400 people were served at each site (City of Los Angeles 2010). Overall, the program has meant an average reduction of 11% in gang related crimes and



Source: David McNew/Wall Street Journal

Figure 3.39 People Relaxing at Martin Luther King Jr. Park in Los Angeles

has saved the city money by reducing the need for costly criminal investigations (Tyler 2009). The program runs from early July to early September, during the months when sites see the most crime. This innovative approach questions the conventional approach to shutting public parks at nightfall, and demonstrates that keeping access open and lights on can be a successful approach to removing crime from public spaces.

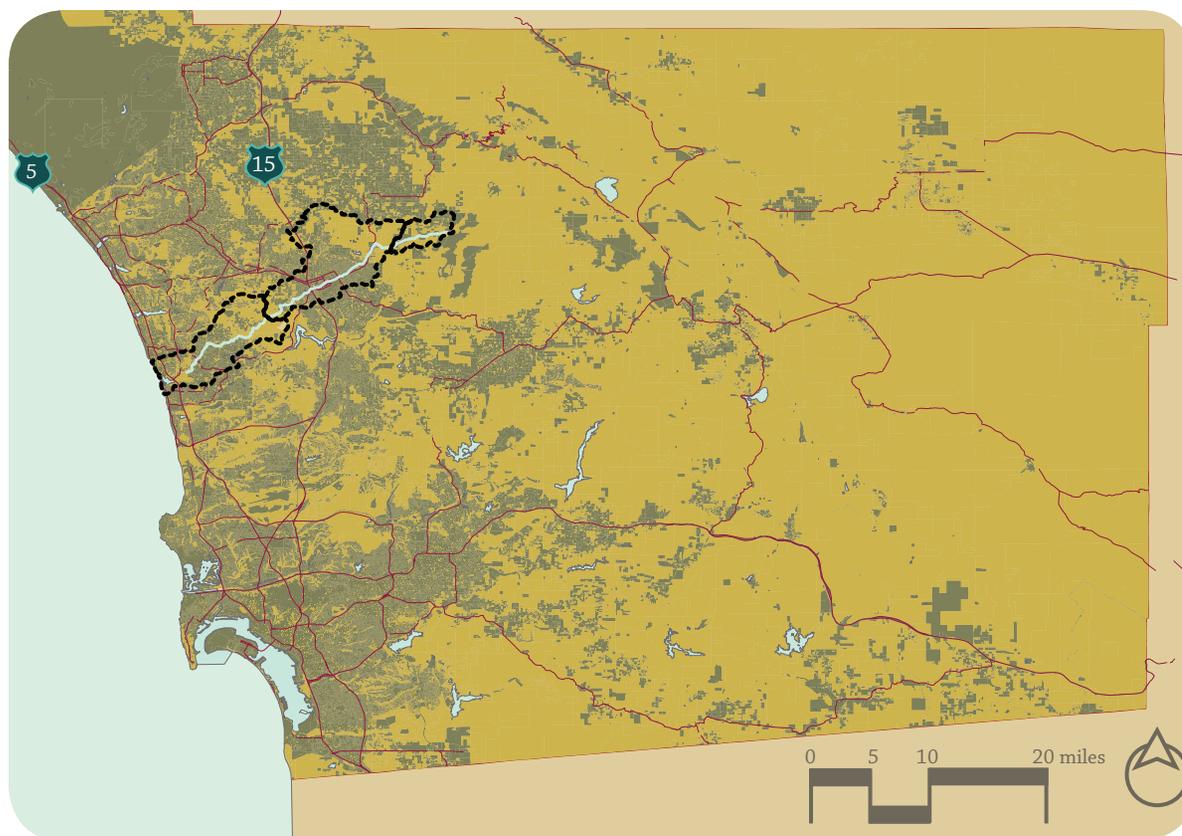
Socio-Cultural Setting: Land Use

San Diego Regional Land Use

San Diego County comprises roughly 2.7 million acres—much of which is undeveloped (see figure 3.40). The bulk of these undeveloped lands is found in the arid eastern two-thirds of the county and is largely controlled by federal and state interests. Topography and public use (such as military use) constrain 1.5 million acres of the undeveloped land in the county from future development. Local plans protect an additional 190,000 acres of open space in San Diego County from development, and the County of San Diego plans to add 130,000 acres of unincorporated open space to the regional preserve system (SANDAG 2004).

The developed land in the San Diego region, approximately 500,000 acres, covers the western third of the county—the area nearest the coast (see figure 3.40) (SANDAG 2004). Building density in this western area is the highest in the county, but when compared to many other U.S. metropolitan regions, constitutes a low density. Streetcars, freeways, and early transportation networks helped to layout local municipalities on the suburban land use model which spread residential, commercial and industrial zones across the region. A regional trend favoring very low density residential development since the early 1990's has further emphasized this low density model. In 2003, spaced rural residential (less than one housing unit an acre) totaled 104,950 acres of the 500,000 developed acres within the County—a 25% increase over 1990 figures (SANDAG 2004). Since 1990, 923,867 acres, or 28% of vacant and agricultural lands, were lost to development (SANDAG 2004).

As local governments continue to designate developable land for spaced rural residential, the



Source: SANDAG

Figure 3.40 San Diego County Development

- Undeveloped Land
- Developed Land
- Highway
- Escondido Creek Watershed

growing demand for housing in San Diego County will not be met. Shifting demographics in the region are increasing the demand for multi-family and higher density housing options (figure 3.41) (SANDAG 2004). However, the housing supply is being restricted by local zoning and will not meet the growing demand for housing. The balance of lands available for development in San Diego County, 700,000 acres, have been designated in local government plans to be developed as less than one dwelling unit per acre (SANDAG 2004). This imbalance between supply and

Socio-Cultural Setting: Land Use

demand will create a future shortage of housing stock and the price of homes was forecasted to increase. The current housing crash presents opportunities for preservation of open space (SANDAG 2004).

Shrewd housing planning on a regional scale is essential to protect the remaining undeveloped land. Higher density land development not only reduces the need for expanding costly infrastructure; it protects undeveloped lands from development. SANDAG explains that by simply increasing the density units of current plans for the incorporated areas of San Diego County for developable land from four to five units an acre, an estimated 18% of open space could be protected (SANDAG 2004).

Watershed Scale Land Use

The Escondido Creek Watershed transects urban and rural land uses as it crosses the landscape from interior North County San Diego to the Pacific Ocean. The upper basin of the watershed near Lake Wohlford is characterized by wild habitat, rural residences, and agriculture. The middle basin of the watershed, centered on the City of Escondido, is an urban landscape replete with residential, commercial, institutional, infrastructural, and even industrial land uses. After the City of Escondido, the watershed again returns to wild, rural residential and agricultural land uses as it continues its descent to the sea. The land use in the lower basin of the watershed is an urban patchwork of residential and commercial uses as the creek enters the City of Encinitas.

Currently, 44% of the watershed is impacted with urban areas and uses, while 30% of vacant land is planned for single family homes and rural development (The San Elijo Lagoon Conservancy

2005). As the land use intensifies, wild landscapes and open space will be lost to provide space for planned residential development. This development will further impact local resources, infrastructure, and the Escondido Creek.

Open space in the watershed varies. Little development has occurred in the land northeast of the City of Escondido. Open space is restricted within the City of Escondido but expands again southwest of the city line in Harmony Grove, Elfin Forest (figure 3.42), and San Elijo Canyon areas. The lower basin of the watershed is predominately urban but a large section of open space encompasses the San Elijo Lagoon area as the creek joins the sea.

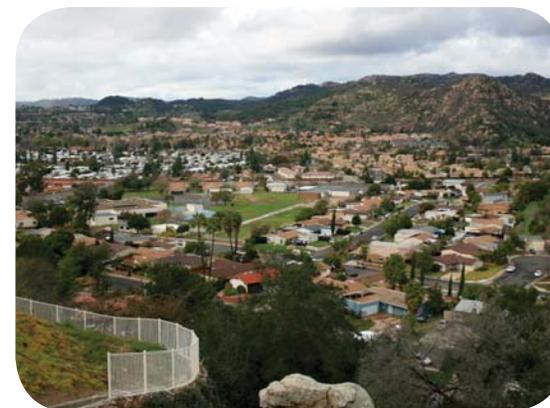


Figure 3.41 Single Family Housing in Escondido

Source: Escondido Creek Design Team



Figure 3.42 Open Space in Elfin Forest

Source: Escondido Creek Design Team

Socio-Cultural Setting: Land Use

City Scale Land Use

The Escondido Creek's journey through the center of the City of Escondido progresses through every category of land use (see figure 3.43). The city's flood control channel serves as a gate to the creek at the far northeastern side of the city near Valley Center Road and Lake Wohlford Road (see figure 3.44). This area is characterized by wild, open space, agriculture, and rural residential land uses. The building density increases along the creek between El Norte Parkway and Centre City Parkway. The housing density reflects a mix of single family and multifamily homes. Commercial and institutional spaces tend to stretch along the south side of the creek while the north predominately features residential uses. The creek is culverted at a commercial strip mall on Escondido Boulevard and disappears from sight. The creek daylight again west of Centre City Parkway.

The reach of the creek between Centre City Parkway and Auto Parkway is characterized by commercial and light industrial uses. Southwest of Auto Parkway, the creek returns to residential land uses and the density changes down from multi-family to single family to spaced rural residential as the creek exits the city boundaries.

Large open spaces within the City of Escondido include Daley Ranch, Dixon Lake (figure 4.45), and Harmony Grove (figure 3.46) in the northeastern and southwestern reaches of the city. Two civic parks about the creek within Escondido: Washington Park and Grape Day Park.

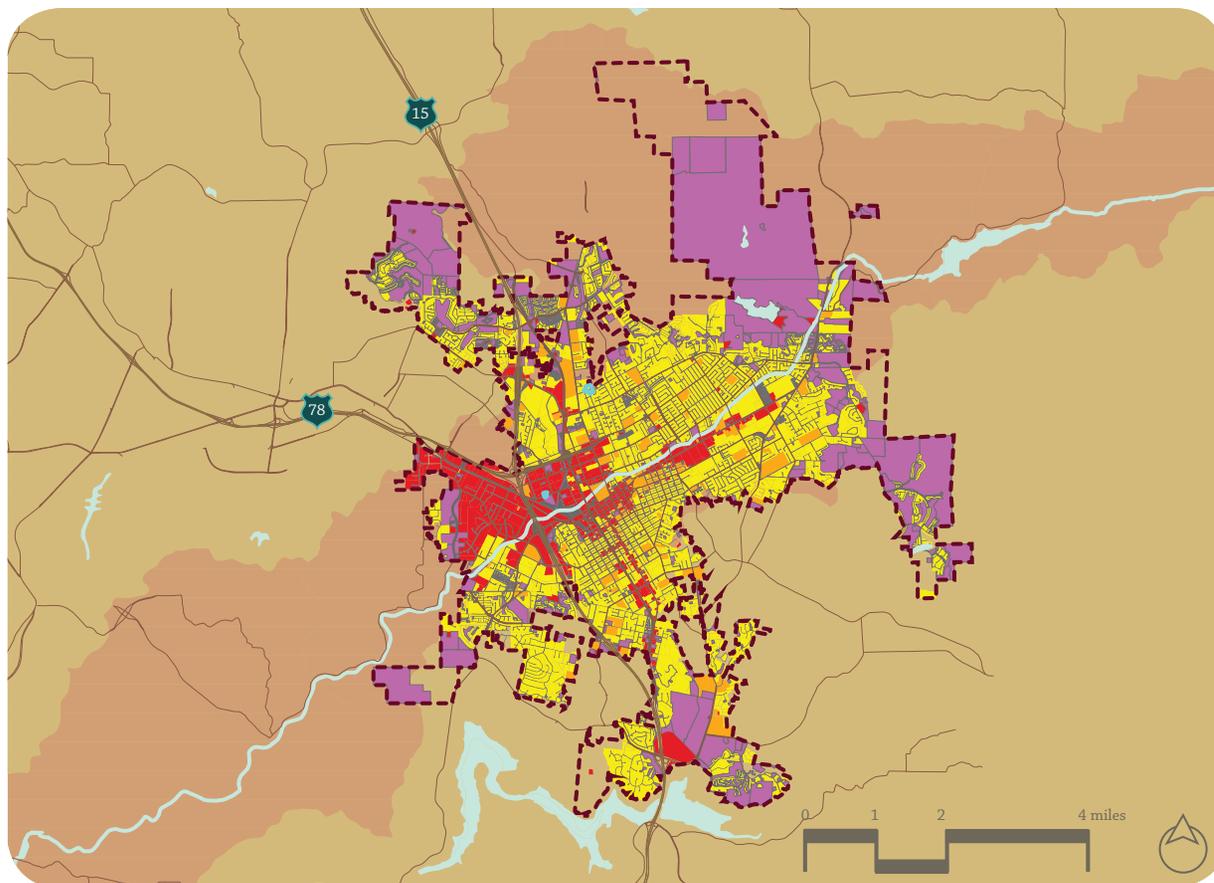
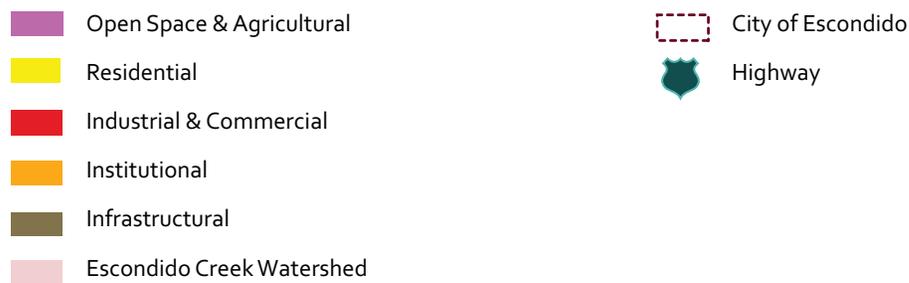


Figure 3.43 City of Escondido Land Use



Source: SANDAG

Socio-Cultural Setting: Land Use

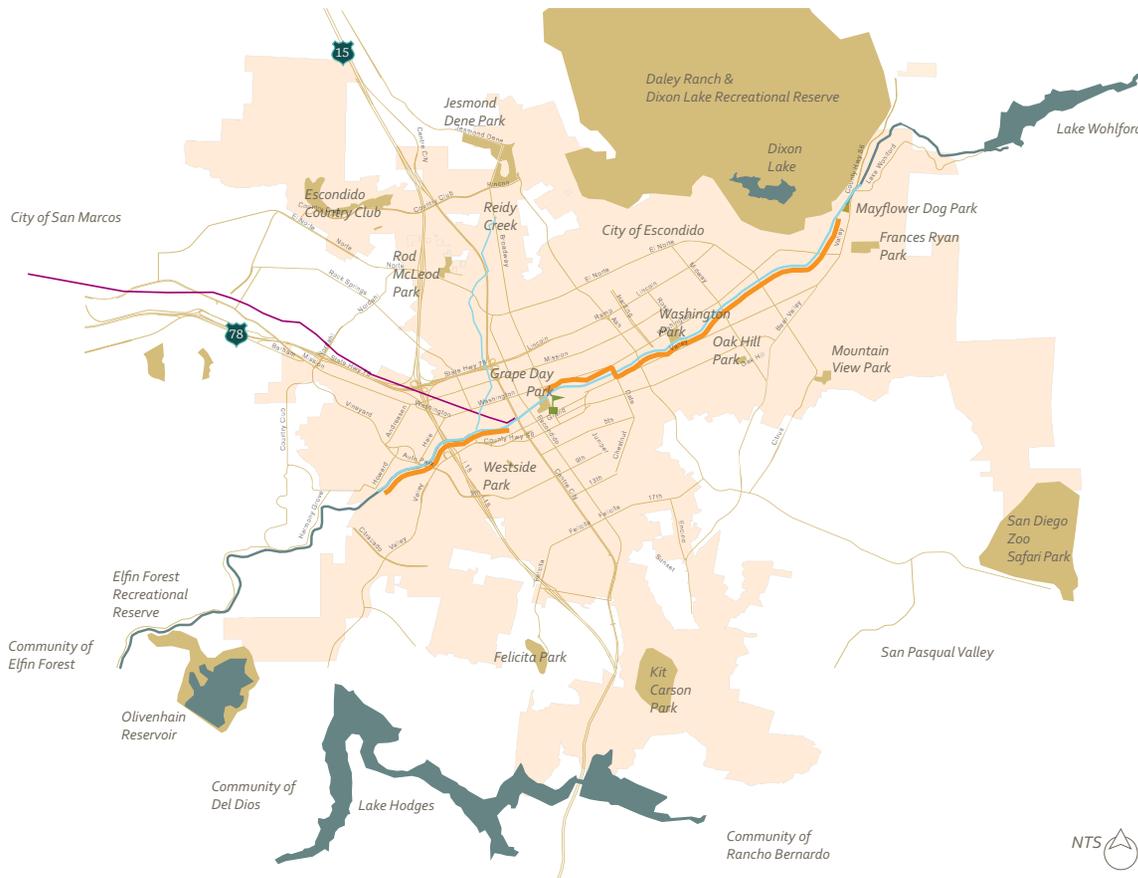


Figure 3.44 City of Escondido Map

-  Escondido Creek Trail
-  Inland Rail Trail
-  Parks & Natural Preserves
-  City of Escondido
-  City Hall
-  Highway
-  Creek Soft Bottom
-  Creek Concrete Channel

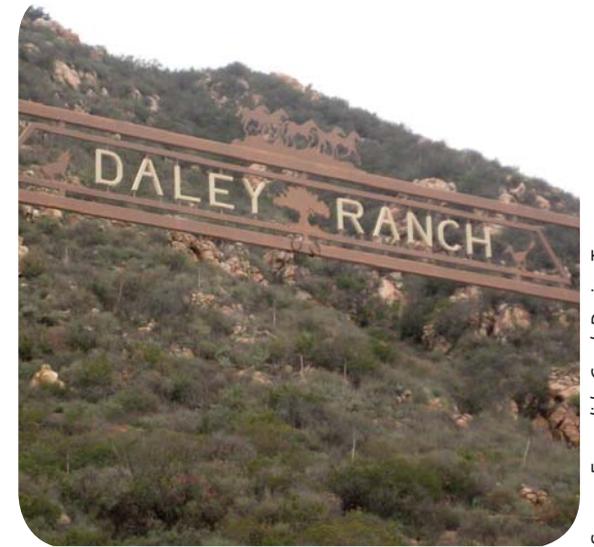


Figure 3.45 Daley Ranch

Source: Escondido Creek Design Team

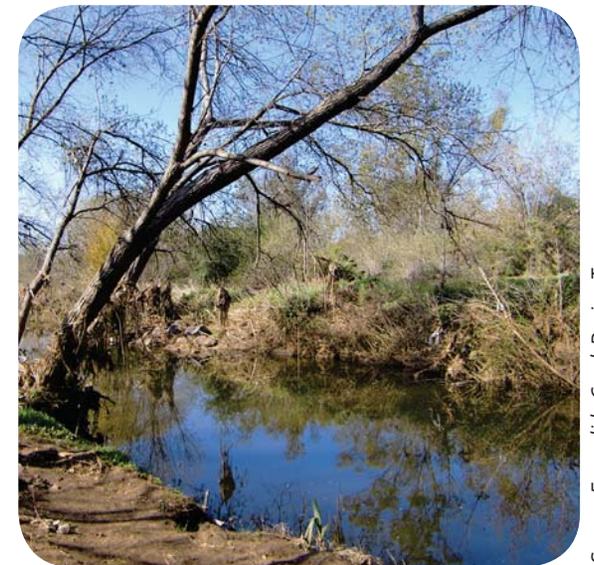


Figure 3.46 Open Space at Harmony Grove

Source: SANDAG

Source: Escondido Creek Design Team

Socio-Cultural Setting: Land Use

Land Use Impacts

Issues impacting the health of the Escondido Creek are associated with the land uses in the watershed and the channelization of the creek (see figure 3.47). On undeveloped land, vegetation and soil work to intercept runoff. As earth and vegetation are replaced with impervious surfaces such as roofs, streets, and parking lots, the overall volume of runoff in the watershed is increased. In the Escondido Creek Watershed urban areas, residential, industrial, commercial, and infrastructural uses cover approximately 44% of the watershed (The San Elijo Lagoon Conservancy 2005). This increase in runoff volume due to land development has dramatic consequences throughout the watershed. Research has indicated impervious cover between 10 and 25 percent reduces stream stability, reduces habitat, degrades water quality, and decreases biological diversity (The San Elijo Lagoon Conservancy 2005). Increased urban runoff also leads to increased water velocity and volume during storm events and the increase likelihood of flooding (KTU&A Merkel & Associates 2002). In the Escondido Creek Watershed, runoff dilutes the naturally brackish waters of the San Elijo Lagoon, impacting resident wildlife species (KTU&A Merkel & Associates 2002).

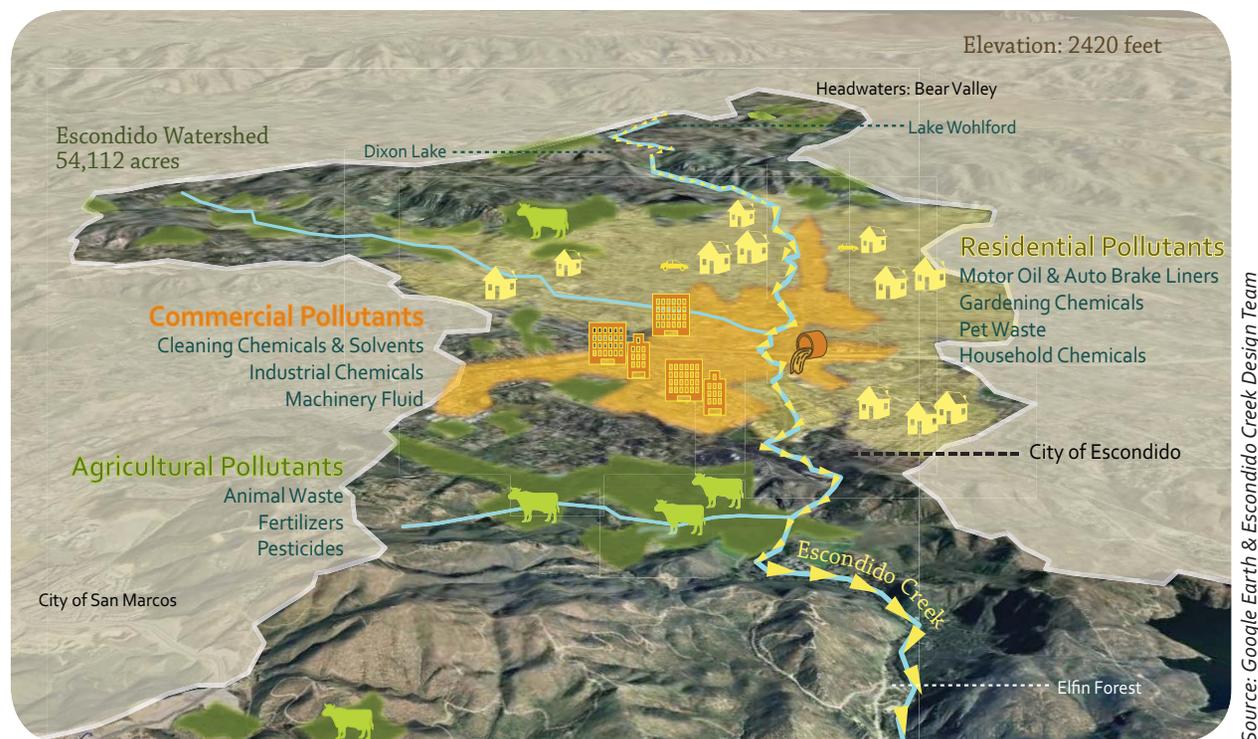


Figure 3.47 Escondido Creek Watershed Pollutants

-  Residential
-  Commercial/Industrial
-  Agriculture

Socio-Cultural Setting: History



Source: Escondido Creek Historic Center Photographic Collection

local riparian corridors (The Pioneer Room 2002). Archeological traces of these early inhabitants remain and relics of these early people exist in the carved grinding stones, or *mutates*, in Felicita Park or the artistic flourishes of the petroglyphs in Harmony Grove.

Early Spanish settlers had their own name for the valley, referring to it as Escondido del Dios, or Hidden from God (Sherman 2001). With the arrival of the Europeans also came the concept of the rancho, or land grant. In the early 19th century, Mexico achieved independence from Spain and the first land grant in the valley of Escondido, 12,653 acres, was granted by Governor Micheltorena to Juan Bautista Alvarado (Escondido History Center 2009). Bautista Alvarado called his land Rancho Rincon del Diablo, or Corner of the Devil Ranch—perhaps it logically follows that a valley hidden from God must be a corner for the devil (Sherman 2001). The interplay between the two names persists to this day with both Del Dios and Rincon del Diablo surfacing as names for neighborhoods, local schools, and, in one instance, the name of the local water district.

In the middle of the 19th century the Rancho Rincon del Diablo changed ownership from Alvarado to Judge Oliver Witherby and California changed hands from Mexico to the United States (Escondido History Center 2009). The change of ownership tipped off a series of alternating land uses as alchemic aspirations sought to convert Escondido's golden landscape into riches. Witherby was one of the earliest immigrants to identify the financial promise in this landscape through cattle ranching and gold mining (The Pioneer Room 2002). Subsequent owners of the Rancho, the Wolfskills, converted much of their cattle stock to sheep, and

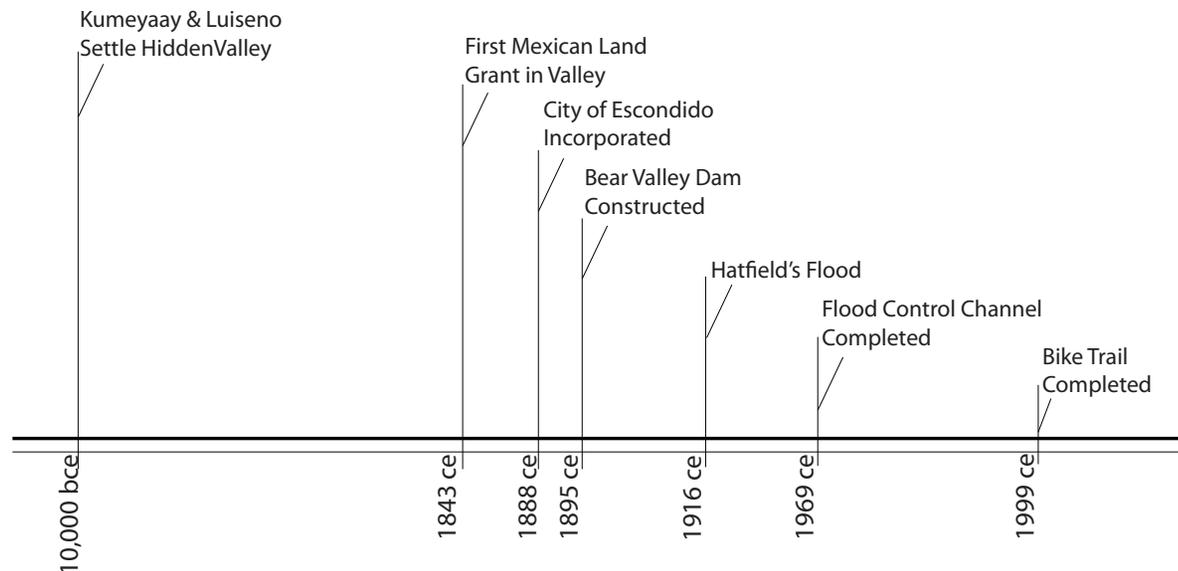
Figure 3.48 Escondido Creek at Elm Street 1966

The History of a Hidden Valley

The story of Escondido echoes the stories of cities throughout California. Its history speaks of California's first peoples, Spanish colonization, Mexican ranchos, American land speculators, agriculturists, suburbanites, and, of course, water barons.

The area, which would come to be nicknamed the Hidden Valley, was known as “Mehel-om-pom-pavo” by its early inhabitants, the Luiseno people (The Pioneer Room 2002). Archeological research indicates these first people arrived approximately 10,000 years ago (The Pioneer Room 2002). Relying on the abundance in the valley the Kumeyaay and Luiseno people built their villages and campsites along the banks of the Escondido Creek and other

Socio-Cultural Setting: History



Source: Escondido Creek Design Team

Figure 3.49 Escondido Creek History Timeline

expanded their agricultural pursuits (The Pioneer Room 2002).

Land speculators recognized the opportunity Escondido promised and began a campaign to make the Hidden Valley more visible to mid-western agriculturalists who might have interest in California's mild climate. In 1866, several seasoned Southern California land speculators organized a land survey of the Rancho Rincon del Diablo and formed the Escondido Land & Town Company. Their vision was to carve a bustling town from the remnants of the rancho. Free land was offered to interested religious congregations and a hotel, a bank and a crucial link to the Santa Fe railroad were in place at the time of incorporation of the City of Escondido in 1888 (The Pioneer Room 2002).

As elsewhere in California, the golden climate and favorable farming attracted immigrants from the Midwest, the eastern United States and Europe. Successful attempts at producing grain and grapes encouraged other crops and soon Escondidans were raising citrus, poultry, livestock, and other fruit and nuts (The Pioneer Room 2002). A thriving packing industry addressed the abundant harvests. The packing houses needed workers, and brought people in need of employment to town and thereby diversified the population (The Pioneer Room 2002). The neighborhoods of Escondido represented people from across North and Central America, Asia, Europe and the Pacific Islands.

The local agriculture trade bolstered the community through the challenges of the early 20th century (The

Pioneer Room 2002). The forms of agriculture continued to expand and soon the valley had developed successful dairies, egg ranches, and avocado groves. However, the peak of agriculture in the Hidden Valley was near and the coming decades witnessed a shift away from Escondido's agrarian heritage.

California's bucolic landscape made way for picket fences and Spanish revival architecture after World War II. Americans flocked to the Golden State and Escondido expanded, too. In 1950, Highway 395 was linked to San Diego, initiating the influence of automobiles on land use decisions (Escondido History Center 2009). A series of annexations expanded Escondido's borders and housing developments caused the population to explode. In 1950, the population totaled 6,544 residents. In 2000, the population had swelled to 133,559—a 2,040% change (Escondido History Center 2009, City of Escondido 2009). By the end of the century, the evolution of Escondido had nearly replaced all of its agricultural lands with housing and minimal industry (The Pioneer Room 2002).

The next few decades were marked by a shifting city center. In 1964, Escondido Village Mall opened on East Valley Parkway, decentralizing land use similar to elsewhere in Southern California (Escondido History Center 2009). This shifting city center was exacerbated in 1988 with the opening of North County Fair shopping center, built on part of the repurposed Kit Carson Park.

Efforts to return Escondido to its historic center began at the end of the 20th century. The historic civic core was recognized with the move of City Hall to Grape Day Park. The effort to centralize

Socio-Cultural Setting: History



Source: Escondido Creek Historic Center Photographic Collection

The project, completed under a \$350,000 bond (Covey 2008) was not without its challenges. The water was collected and conveyed through the La Jolla and Rincon Indian Reservations and a sequence of lawsuits disputing the water rights triggered a decades long dispute (The Pioneer Room 2002). The rustic conveyance technology proved inefficient with only 60% of the diverted water reaching the reservoir and only 47% of that water reaching the land (McGrew 1988). The bond investment also proved burdensome and downturns in the local real estate economy left many locals with devalued land (McGrew 1988).

The water bond investment was burdensome but the infrastructure built with the funds positioned the burgeoning city for a century of growth. The oppressive bond debt was settled in 1905 and Escondidans celebrated with a Burning of the Bonds ceremony on the steps of Lime Street School (Covey 2008). In the years immediately following the settlement of the bonds, the city enjoyed a boom in housing and commercial development (Covey 2008).

A storm ravaged San Diego County in 1916, bringing 24.1 inches of rain to Escondido in eighteen short days (Escondido History Center 2009). The incessant downpour saturated the earth, and the Escondido Creek rushed through the valley taking with it homes and businesses. The economic impacts were severe as the flood caused extensive damage to buildings, twisted the train tracks, and ruined crops (Covey 2008). The inundation became known as the “Hatfield Flood” named for rainmaker Charles Hatfield who had been hired by the San Diego City Council to bring an end to the severe drought, and who was subsequently blamed

Figure 3.50 Escondido Creek at Lime Street (present day Broadway) 1895

Escondido was reinforced by developments such as the California Center for the Arts, the Escondido Children’s Museum, the Mingei International Museum, renovations to Grand Avenue, and events such as the Downtown Farmers’ Market and Cruisin’ Grand.

Keeping Hydrated: Escondido’s Acquisition & Management of Water Resources

The volume of the Escondido Creek and other water sources in the area was sufficient to support the early inhabitants of the Hidden Valley. Individual and neighborhood wells kept the water flowing to 19th century ranchos but the small groundwater supply proved unreliable and insufficient for the number of people who would move to the valley in the latter half of the 19th century (City of Escondido N.D.). It was

the hard work of many early pioneers and leaders in the City of Escondido that resulted in sufficient access to water, allowing the city to expand to the size it is today.

Land speculators recognized the climate and scenic beauty of the Hidden Valley, but town planners realized increasing the water supply was key to the development and agricultural success of the city. A growing agriculture industry and a burgeoning town taxed the local wells, necessitating an expansion to the water system. After early attempts failed, the Escondido Irrigation District was formed in 1889 in an effort to secure the water supply. In 1894, the Escondido Irrigation District constructed 15 miles of hand-dug canals, bringing water from Upper San Luis Rey Watershed to the newly built Bear Valley reservoir (City of Escondido N.D., Covey 2008).

Socio-Cultural Setting: History



Source: Escondido Creek Historic Center Photographic Collection

Figure 3.51 City of Escondido 1936

for the event (Schrokosch 2009). The disaster left an indelible mark on the psyche of the community and influenced decisions about the creek for many years.

The 1920s were marked by the an expansion of the water system. Bear Valley Dam was raised and reinforced through hydraulic mining techniques in 1923 and the lake was renamed Lake Wohlford in 1924 (Covey 2008). Using a model diesel steam shovel,

the Escondido Mutual Water Company and the Vista Irrigation District joined efforts to build a 10-mile flume from Lake Wohlford to Buena Creek's Pechstein Reservoir (Covey 2008). This project resulted in a dual-agency arrangement that persists to this day (City of Escondido N.D.).

Southern California grew rapidly in the 1940s and the Metropolitan Water District responded to the

increased demand, by constructing the Colorado River Aqueduct. The San Diego County Water Authority began delivering this imported water to San Diego County in 1947, but permitted only public agencies to access the water, which excluded Escondido Mutual Company from accessing the water (City of Escondido N.D.). The Rincon del Diablo Municipal Water District was formed in response in 1954 (McGrew 1988). A "double barrel" conduit was laid

Socio-Cultural Setting: History



Source: Escondido Creek Historic Center Photographic Collection

Figure 3.52 Construction of Escondido Creek 1968

through the center of the city to deliver water from the Colorado and Feather Rivers. Access to the pipeline in the case of emergency was ensured by leaving a broad setback down Harding Street and through the center of the Escondido Village Mall, which was built upon completion of the pipeline (McGrew 1988).

Pressures on land acquisition and the inconvenience of seasonal floods led to a straightening and channelizing of Escondido Creek in the late 1960s. In an attempt to keep in step with neighboring cities in

Southern California, Escondido, under the leadership of City Manager Lloyd M. “Lefty” Mitchell, committed to controlling the meandering pattern of the stream bed of Escondido Creek. The channelization project began in 1965 and was completed over four phases, costing \$11 million (figure 3.52) (McGrew 1988). State and federal governments contributed \$9.27 million and Escondido residents paid the balance out of a bond issue passed in 1963 (McGrew 1988).

The first three phases of the channelization project involved construction of the seven miles of channel along Escondido Creek. The fourth phase of construction was built to impound imported water from the State Water Project in Jack Creek and to build a modern filtration plant at the base of the dam (McGrew 1988). Named for long-time superintendent of the Mutual Water Company Jim Dixon, also known as “Mr. Water,” the Dixon Lake Recreation Area opened in 1977 providing camping, hiking, and fishing opportunities in addition to expanding local water availability (McGrew 1988). Recreation facilities were later extended along the flood control channel phase of the project in the late 1990s when a Class I bicycle route was installed along the channel right-of-way (City of Escondido N.D.).



Source: Escondido Creek Historic Center Photographic Collection

Figure 3.53 Escondido Creek at Confluence with Reidy Creek 1970

Socio-Cultural Setting: Cultural Amenities

A rich legacy of California history over the centuries has ensured that many cultural treasures have been tucked into the recesses of the 'Hidden Valley'. Little known to outsiders beyond the region, some of Escondido's cultural treasures remain lost to the region's current residents. Among Escondido's historical assets are the Old Escondido Historic District—a large collection of historic residences in the heart of the downtown, the San Pasqual Battlefield State Historic Park—a California State Park commemorating soldiers who fought in the Mexican-American War, the historic Ferrara Winery—the oldest vineyard in San Diego County, and Heritage Walk in Grape Day Park (figure 3.54)—a collection of buildings preserved from Escondido's early days.

In addition, Escondido boasts a bustling arts scene anchored by an elegant performing arts facility, the California Center for the Arts, located prominently in the civic heart of the city. Downtown Escondido's Mingei International Museum, a graceful venue for exhibitions of folk art, crafts and designs, and the Escondido Children's Museum, whose mission is to inspire children to learn about the world through imagination and exploration round out the cultural offerings downtown. And finally, in Escondido's Kit Carson Park, just three miles away, Niki de Saint Phalle's Queen Califia's Magical Circle Garden is a towering, brightly patterned, full-scale sculpture and the acclaimed artist's only American sculpture garden installation (figure 3.56).

Just outside the city, but not far from Kit Carson Park is the world renowned San Diego Zoo Safari Park, which features open-range enclosures with exhibits from seven continents. The park is a premier

attraction in San Diego County with two million annual visitors.

The residents of Escondido are blessed to be surrounded with acres of land open to the public for hiking, biking, equestrian and recreational uses. These open space reserves include Dixon Lake Recreational Area and Daley Ranch in the City of Escondido and near-by Felicita County Park, San Dieguito River Park, and the Elfin Forest Recreational Reserve.

Set in a naturally breathtaking and far-flung corner of San Diego County, Escondido boasts several exclusive resorts and spas. Two of the early resorts in Escondido were the Golden Door and the Lawrence Welk Resort Village. More recently, Castle Creek Inn Resort & Spa and H.G. Fenton Canyon Ranch Resort & Spa have been added as local luxurious facilities.

Finally, in addition to the museums, parks, open space and resorts, Escondido has a history of providing a refuge for spiritual pursuits. The area is home to Deer Park Monastery—a Buddhist sanctuary founded in 2000 and under the direction of renowned spiritualist Thich Nhat Hanh, Harmony Grove Spiritualist Association—a spiritualist retreat founded in the late 1800s, Questhaven Retreat—a non-denominational Christian retreat, and the Westminster Theological Seminary—a graduate institution serving roughly 125 full-time students.



Figure 3.54 Historic Santa Fe Train Station relocated to Heritage Walk in Grape Day Park

Source: Escondido Creek Design Team



Figure 3.55 Art Sculpture in Escondido

Source: Escondido Creek Design Team

Socio-Cultural Setting: Cultural Amenities



Figure 3.56 Kit Carson Park

Source: Escondido Creek Design Team

Socio-Cultural Setting: Traffic Circulation

San Diego Regional Auto Circulation

The low density sprawl of the San Diego region has generated a dependency on the auto and highway network. Presently, San Diegans average 15 million car trips a day (SANDAG 2004), a staggering number for a population estimated in the 2010 US Census to be 3.1 million (SANDAG 2010). SANDAG forecasts predict this number will increase to 20 million trips/day by the year 2030 (SANDAG 2004). The majority of highway trips (73%) are non-work related and car trips in the region average five miles (SANDAG 2004). Work trips for the region average 10.5 miles indicating many residents rely on highways to commute to work (SANDAG 2004). These figures demonstrate highways are essential to circulation in the region and are utilized for basic trips such as running errands, commuting, driving children to after school programs and other non-work related trips. As the population continues to grow, the car focused transportation system will be increasingly taxed; strategic development of land coupled with viable alternative transportation options in the future will help reduce the burden on this system.

Watershed Scale Auto Circulation

Highway circulation patterns tend to transect the watershed as opposed to running parallel to the flow of water. Several highways, namely Interstates 5, 15, and Highway 78, serve the two large urban hubs of the Cities of Encinitas and Escondido and the road network tends to radiate from these urban cores. Though roadways parallel the creek for specific reaches, it is not possible to drive between the urban area of Escondido in the middle basin and Encinitas in the lower basin without driving outside the watershed boundary.

Local Scale Auto Circulation

Interstate 15, the major highway in Escondido, and Centre City Parkway — a major four-lane surface street — traverse the creek on the western side of the city. Highway 78, known as Ash Street, and El Norte Parkway, are two other major creek crossings on the eastern side of Escondido. Valley Parkway serves as the east-west business loop through the heart of Escondido and runs parallel to the south of the creek as it makes its journey through the city. Washington Avenue parallels the creek to the north running along the eastern reach of the creek.

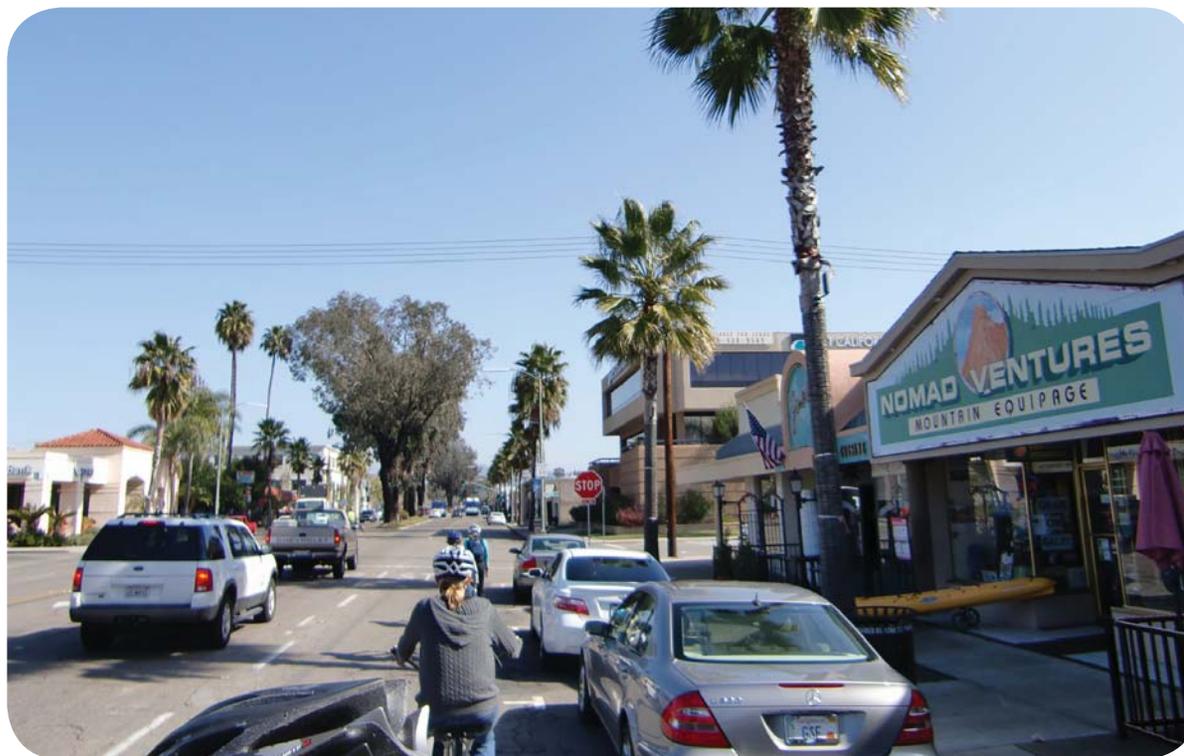


Figure 3.57 Traffic along Grand Avenue in Downtown Escondido

Source: Escondido Creek Design Team

Socio-Cultural Setting: Public Transportation



Source: Escondido Creek Design Team

The two major public transportation systems in the City of Escondido are the light rail and bus systems. Escondido Transit Center, located in Downtown Escondido, is the main transit hub for both bus and train (figure 3.58). The train station serves as the current eastern terminus of the North County Transit District's Sprinter light rail line that runs from Oceanside Transit Center in the west to Escondido Transit Center in the east. Within the City of Escondido, the San Diego Metropolitan Transit System services 16 different routes; 15 of these routes stop at the Escondido Transit Center (San Diego Metropolitan Transit System 2010).

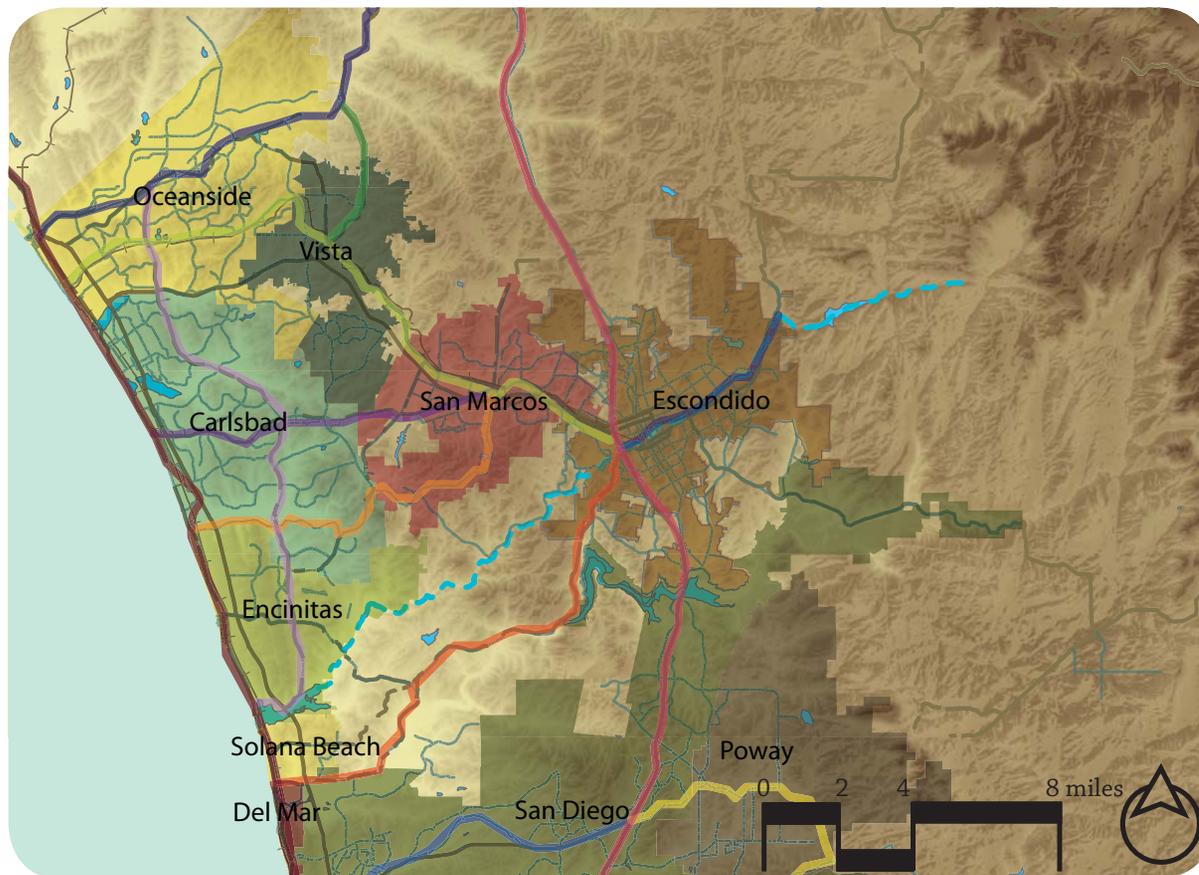
The City of Escondido is coordinating with the North County Transit District and SANDAG to improve the existing bus system. Route 350 Rapid Bus Project will provide express service between the Escondido Transit Center and Westfield Shopping Town. Improvements include installing queue-jumper lanes that allow buses to advance ahead of private vehicles in order to provide faster service between designated stops (City of Escondido 2009).

Figure 3.58 Escondido Transit Center

Socio-Cultural Setting: Regional Bike Trails

San Diego County has approximately 1,200 miles of bikeway facilities. Ten percent of the total bicycle facilities are Class I facilities (paved path separated from road), 67% are Class II (striped lane on road shoulder), and 21% are Class III (bike route marked by signage) facilities (SANDAG). Within San Diego County, 445 miles of regional bicycle corridors either exist or are in development (see figure 3.59). At approximately 56 miles, the longest of the planned corridor is the I-15 Bikeway, which will link Temecula in the north to Mid-City San Diego in the south. The second longest corridor is the 43 mile Coastal Rail Trail from Camp Pendleton. These dedicated corridors link Camp Pendleton to downtown San Diego and the Mexican international border to Mission Valley in San Diego (SANDAG).

A total of 30.3 miles of bicycle facilities exist within the city limits of Escondido—8.7 miles of Class I, 19.7 miles of Class II, and 0.1 miles of Class III routes. Freeway shoulder bicycle facilities total 1.8 miles of the city bicycle facilities. Escondido bicycle trails account for only 2.6% of the total bicycle facilities in the region, while the city’s population accounts for 4.6% of the region’s population (SANDAG).



Source: SANDAG

Figure 3.59 Regional Bike Trail Connection Map

- | | |
|--|----------------------------|
| — Coastal Rail Trail | — San Luis Rey River Trail |
| — El Camino Real | — Scripps-Poway Parkway |
| — Escondido Creek Bike Path | — SR-56 Bikeway |
| — I-15 Bikeway | — Vista Way Corridor |
| — Inland Rail Trail | - - - Escondido Creek |
| — La Costa Ave./Rancho Santa Fe Rd. | — Regional Corridor |
| — Mid-County Bikeway | ++ Railroad |
| — Palomar Airport Rd./San Marcos Blvd. | ■ Waterbody |

Socio-Cultural Setting: City of Escondido Bike Trails & Traffic



Figure 3.60 Escondido Existing Creek Trail Map

-  Escondido Creek Trail
-  Inland Rail Trail
-  Parks & Natural Preserves
-  City of Escondido
-  City Hall
-  Highway
-  Creek Soft Bottom
-  Creek Concrete Channel

Source: SANDAG

According to the City of Escondido’s Bicycle Facilities Master Plan, Escondido has a total of 28 bicycle routes within the city limits. This project focuses on the Escondido Channel Bikeway, referred to in this vision plan as the Escondido Creek Trail. This bikeway serves as a major east-west spine of the Escondido Bikeway system, and is the only extended Class I grade-separated bikeway in the city. The bikeway is situated along the six-mile service road of the channelized portion of the Escondido Creek from Harmony Grove Road to Valley Centre Road. Seven Class II bike lanes connect with the Escondido Channel Bikeway within the city limit (see figure 3.60) (City of Escondido Bicycle Facilities Master Plan 1993). The Escondido Creek Trail is connected to the Inland Rail Trail at the Escondido Transit Depot, which connects users to Oceanside, approximately 20 miles to the northwest (SANDAG).

Since the project inception in 1997, many of the improvements to the Escondido Creek Trail have been funded through federal and San Diego Association of Governments (SANDAG) grants. The first phase, a 1.6-mile stretch between Harmony Grove Road and Quince Street, was completed in 1997 for \$160,000. The second phase, a 1.7-mile stretch between Washington Avenue and Harding Street, was completed in 2002 for \$267,000. The third phase, a 1.5 mile stretch between Harding and Broadway, was finished in 2003 for \$275,000. Additionally, in the past two years, the developer of the Eureka Ranch housing subdivision extended the trail east into Mayflower Dog Park. The city also completed a \$600,000 underpass at Auto Park Way in 2002. A second underpass is planned for Ash Street in 2010 (Garrick 2009).

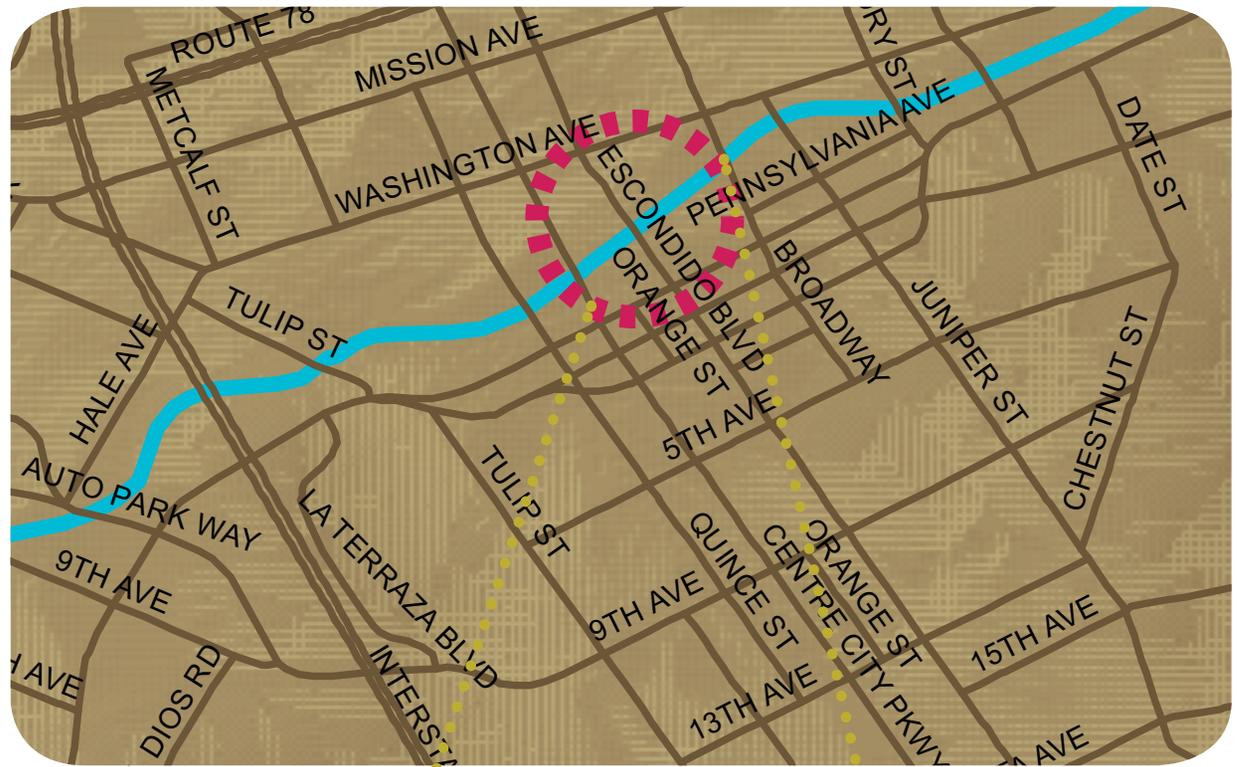
Socio-Cultural Setting: City of Escondido Bike Trails & Traffic

The center of Escondido contains a “Missing Link” along the trail between Broadway, east of Grape Day Park, and Quince Street near the Escondido Transit Center (see figure 3.61). This Missing Link is due to the Civic Center Plaza Shopping Center which was built atop the Escondido Creek and the concrete channel. Bikeway users are required to use major surface streets in order to connect between Quince Street and Broadway (Garrick 2009).

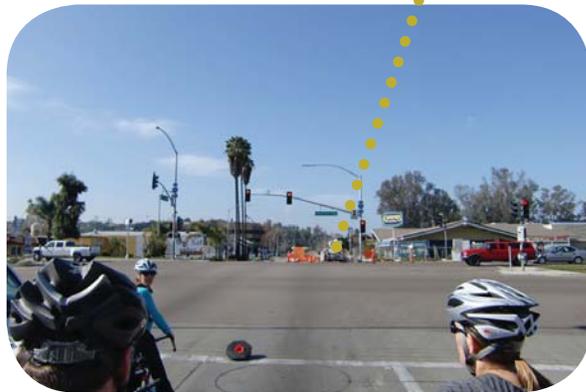
The Missing Link forces trail users into dangerous and unsafe traffic conditions. The intersection of Valley Parkway and Centre City Parkway, one of the intersections trail users encounter while being diverted at the Missing Link, has a traffic volume of 20,000 to 30,000 cars per day (City of Escondido 2010).

Along the Escondido Creek Trail, intersections at which the trail crosses surface streets lack adequate crosswalks and safety measures. Many of these intersections are at high volume streets which create dangerous crossings. These intersections also lack signage alerting automobiles of possible bicycle and pedestrian cross traffic.

Figure 3.62 shows the Escondido Creek Trail and traffic volume at the intersection of the surface streets and the creek trail. There are multiple intersections between surface streets and the trail without safe crosswalks and with traffic volume between 10,000 to 20,000 cars per day (City of Escondido 2010).



Source: City of Escondido GIS Data



Source: Escondido Creek Design Team



Source: Escondido Creek Design Team

Figure 3.61 Graphics of Missing Link area, map (above), Center City Parkway (left), and Broadway (right)

Socio-Cultural Setting: City of Escondido Bike Trails & Traffic

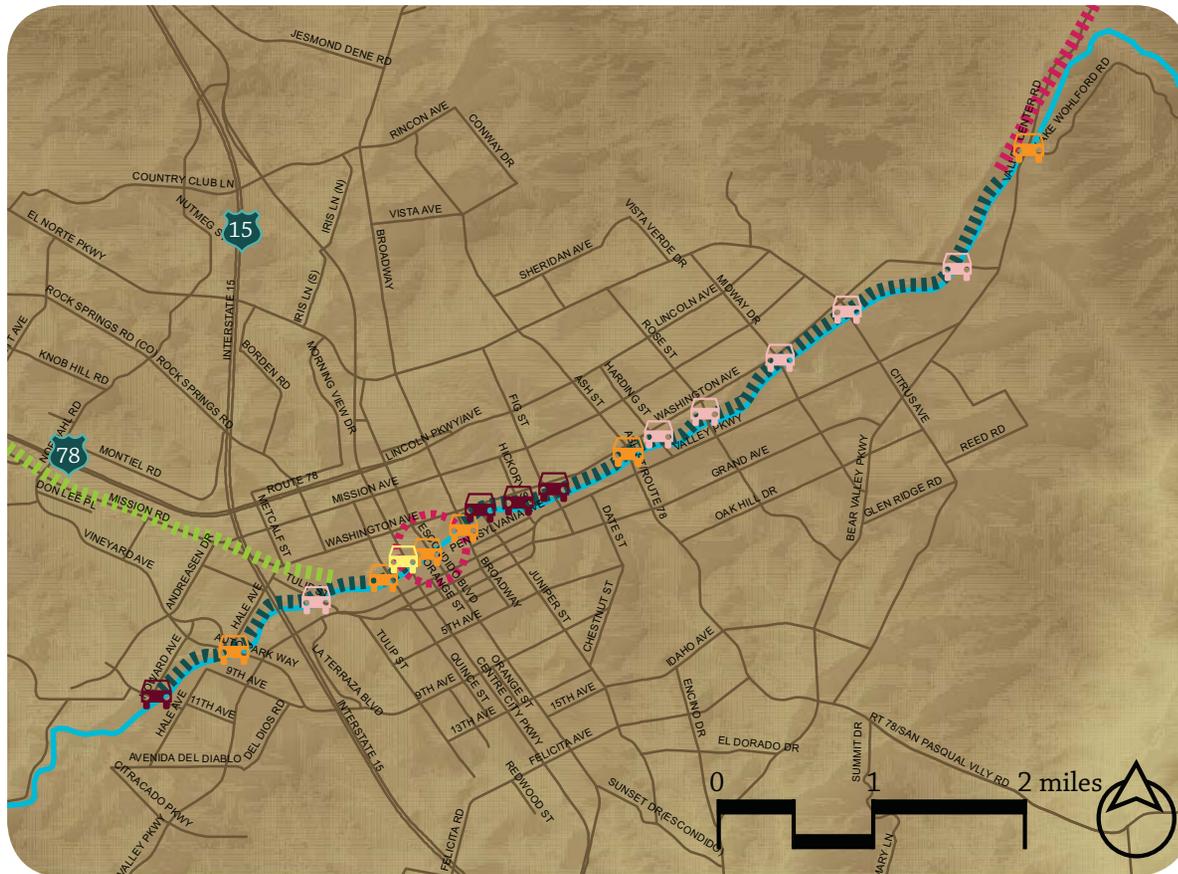


Figure 3.62 Escondido Traffic Volume Map

The “Missing Link,” a break in the trail between Quince Street and Escondido Boulevard, occurs where Civic Center Plaza Shopping Center was built over the channel. At this point, trail users are required to use major surface streets in order to connect from Quince Street to Broadway.



Figure 3.63 Escondido Creek Trail

Source: City of Escondido GIS Data

Source: Escondido Creek Design Team

- | | |
|--|---|
|  500 - 10,000 |  Escondido Creek |
|  10,001 - 20,000 |  Escondido Creek Bike Path |
|  20,001 - 30,000 |  Inland Rail Trail |
|  30,001 - 100,000 |  Missing Link |

Community Outreach

Community engagement in the process of developing this vision plan was a core value to the Revealing Escondido Creek design team and an integral component of the design process. In keeping with this value, the design team sought the input and participation of the community at each stage of the process. Community engagement was also a means of ensuring the fulfillment of another of the design team's values: social equity. With these objectives in mind, the design team developed a multi-modal approach for understanding the community's hopes, concerns, and preferences for the creek and the vision plan.

In order to incorporate as much community input as possible, the Revealing Escondido Creek design team held a number of community events, conducted meetings with city officials, community organizations and stakeholders, spoke with trail users, studied use behavior and conducted a community survey. The design team also hosted community events and conducted a community survey to gather as much information as possible about what the residents of the City of Escondido thought about the creek trail.

Overview of Community Outreach Methods

To get a sense of the history of activism and concern for the creek, as well as understand the work done in the past, the design team held meetings with the central conservation agency in the watershed, The Escondido Creek Conservancy (T.E.C.C.) (figure 3.63). This group, with offices in downtown Escondido, is a non-profit agency formed in 1991, "dedicated to the preservation, restoration and protection of the natural open space within the Escondido Creek watershed" (The Escondido Creek Conservancy 2011). The staff and board members of T.E.C.C. are concerned with the health of the watershed in general and the creek specifically.



Table 3.1 Community Outreach Chart

The design team's point of contact in the City of Escondido was through the office of Community Services' Department of Neighborhood Services. This department manages projects related to neighborhood improvement, acts as a liaison between community and neighborhood organizations and was our point of contact for personnel in planning. Neighborhood Services has experience developing partnerships with residents and community groups to improve neighborhoods and public infrastructure in the city.

OUTREACH EVENT

Stakeholder Meetings

December - January

City of Escondido, Chamber of Commerce, Escondido Creek Conservancy, Communications Director

Community Event: Bike Walk Survey

February 13, 2010

City Hall, City of Escondido

Community Event: Design Workshop

March 24, 2010

City Hall, City of Escondido

Behavior Observations & Informal Interviews

January-April

Escondido Creek, City of Escondido

Community Survey

March 24, 2010

City Hall, City of Escondido

The Escondido Chamber of Commerce was among the first groups with which the design team met. The design team presented initial findings and held a discussion about the vision plan with the Chamber in order to get input from members of the business community and identify potential parties who might be interested in contributing suggestions.

During the course of the design team's research, two community events were held. The first event,

Community Outreach

TYPE OF OUTREACH	PURPOSE	PARTICIPANTS	INFORMATION
<ul style="list-style-type: none"> Meetings Group Presentations 	Understand experts/stakeholders view of the creek and its issues	~20+ meetings	see pg. 73
<ul style="list-style-type: none"> Field visits Cognitive mapping exercise Likes/dislikes mapping exercise 	Understand public perspective of the creek and its issues	~60 participants	see pg. 75 & Appendix A
<ul style="list-style-type: none"> Design charrette Group presentations 	Allow public to voice their design opinions and how the trail could better serve them	~40 participants	see pg. 78 & Appendix B
<ul style="list-style-type: none"> Behavior observations Informal interviews 	Understand users perspective of the creek and how they use it	~40 participants	see pg. 81
<ul style="list-style-type: none"> 2-page survey 	Obtain data to help guide in the design process	~40 participants	see pg. 86

Source: Escondido Creek Design Team

a bike-walk survey of the creek, was conducted in order for the community to explore the creek trail. Participants experienced traveling along the creek corridor and discussed issues related to the creek trail. The goal of this event was to provide residents and people using the creek trail with a venue in which to discuss issues and ideas for how to solve the issues.

The second community event was a design charrette facilitated by the design team for members of the community in order to discuss possible design

solutions. The purpose of the design charrette was to provide a forum for the public to work in teams and prioritize the issues of the creek trail and to design solutions for a parcel of city-owned land.

In order to gather some quantifiable data on what the community would like to see incorporated into possible design solutions, the design team developed a community survey. This survey measured preferences across a broad range of design elements and concepts.

Finally, in order to understand the ways that residents of the city use the trail, the design team conducted multiple observational studies and informal interviews. These observations and interviews informed the design team about how the trail is used on a daily basis by the residents living in close proximity to the trail and by other users.



Community Outreach: Stakeholder Meetings

Several organizations in the community have been engaged in identifying solutions to the social and environmental challenges of the Escondido Creek and Trail and have emerged as voices for positive change. Their efforts have raised awareness of the issues and they have introduced a series of alternatives to the existing conditions. It is due to the efforts of these leaders that the Revealing Escondido Creek design team learned of the growing local movement to improve conditions along the creek and chose to submit the proposal to develop a vision plan in response. This proposal gave impetus to the Revealing Escondido Creek project.

At the onset of the project, the design team recognized the importance of contacting the community organizations and arranged meetings in order to develop an understanding of the range of issues surrounding the Escondido Creek and Trail. The design team met with a variety of stakeholders from diverse backgrounds, with different interests and expertise. The first of these meetings included members of the Escondido City Council, and City of Escondido staff employees. City departments involved in the project from the outset included Neighborhood Services, Planning/GIS, Engineering, and members of the Escondido Police Department. These meetings helped the design team understand some of the basic constraints that the city is working with as well as what resources would be available to the design team. These early discussions also helped the design team better understand what the implications of the project could be and the mechanisms for how future alterations to the trail might be accomplished. Discussions were informal and meetings were conducted at Escondido City Hall.



Source: Escondido Creek Design Team

Figure 3.63 Escondido Creek Conservancy Meeting

The team also made a brief presentation to the members of the Escondido Chamber of Commerce and solicited feedback from members of the business community. This presentation and discussion was held at the Escondido Chamber of Commerce and provided the design team with valuable insight about the priorities and values of the chamber members.

The Escondido History Center and Pioneer Room archive provided valuable graphic materials and

answered questions related to the history of the city of Escondido and the creek. Both organizations have considerable archives of historic material including newspapers, maps, books and journals.

Holding meetings and community events inevitably led the design team to discussions with other involved and interested individuals in the community, through which the design team developed a network of stakeholders and community players. Among the

Community Outreach: Stakeholder Meetings

helpful individuals the design team made contact with were The Escondido Creek Conservancy, the Executive Director of the Escondido Education Foundation, the Communication's Director of the San Elijo Lagoon Conservancy (figure 3.64), and the Community Services Director for the City of San Marcos. All of these contacts proved invaluable to the process of accessing the community of individuals in the Escondido area who would like to see the revitalization of the creek.

Concerns expressed in these meetings included:

- Occurrences of crime along trail and safety of users and residents
- Lack of crosswalks and user safety features
- Night closure of trail
- Gates impeding access to trail and circulation
- Lack of landscaping along trail
- Insufficient basic amenities along trail
- Unattractive trail fencing
- Disconnected from local/regional features
- Restricted trail access
- Narrow trail width
- Limited channel crossings
- "Missing Link" gap in trail and disconnected access to local transit center
- Limited trail programming

- Limited shade on trail and thermal conditions of stream
- Poor water quality of creek
- Degraded habitat
- Limited public awareness of creek
- Limited public awareness of trail asset
- Limited public funding

Their suggestions included:

- Reinstating bicycle police patrol of creek trail

- Installing lighting along trail and possible night closures of trail
- Stimulating the economy through the creation of creek-oriented destinations and programming
- Improving aesthetics and adding amenities to trail and creek corridor
- Offering environmental education programming for youth and adults
- Developing partnerships between private entities and the City of Escondido



Figure 3.64 San Elijo Lagoon Conservancy Meeting

Source: Escondido Creek Design Team

Community Outreach: Bike Walk Survey



Source: Escondido Creek Design Team

team to meet these community engagement goals and as a means for seeing the creek and trail from the community’s perspective.

Event Description

The “rain or shine” event was held on Saturday February 13, 2010 at Grape Day Park in downtown Escondido and advertised as an opportunity for anyone with an interest in the creek to join the design team in exploring and reimagining the Escondido Creek Trail. Participants were encouraged to RSVP via the “Reveal the Creek” website and specify whether they would be planning to walk or ride the route. Flyers advertising the event contained a map showing the location of the event, detailed what participants should bring or wear in order to safely and comfortably attend the event, and specified that lunch and drinks would be provided. These flyers were handed out in Grape Day Park, the History Center, The Escondido Creek Conservancy, and were posted online on a local events website.

The Bike Walk Survey was a community exploration event. The event itinerary had two activities. The first was a design team-led walk or bike tour of the creek and trail and the second activity was a community input session in which participants mapped their observations. Participants met at the Train Depot in Grape Day Park. They were allowed to choose the tour by bike or on foot and whether they wanted to explore the eastern section of the trail or the western (see figure 3.66 - 3.68 for route maps). Design team members led each tour to ensure safety. The three total creek tours left simultaneously. The tours were roughly one hour long and participants returned to the Mitchell Room, in Escondido City Hall, for lunch and the community input activity. For a schedule of the event, see Appendix A.

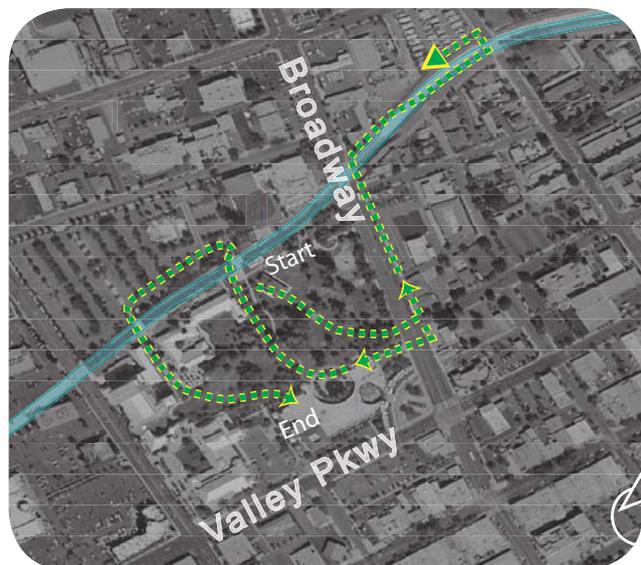
Figure 3.65 Bike Walk Survey

Purpose of the Event

Improving equal access to the Escondido Creek Trail for all members of the community regardless of income, ability, or social affiliation is a priority for the design team as outlined in the four project values. In order to be able to design for the needs of the community, it is essential for avenues of

communication to be established between the community and the design team to “see” the creek from the community’s perspective, to provide opportunities for the community to tell the team their hopes and concerns, and to provide a forum for the community to participate in the vision plan process. The first community event, the Bike Walk Survey, was developed by the design

Community Outreach: Bike Walk Survey



Source: Escondido Creek Design Team

Figure 3.66 Walking Route



Source: Escondido Creek Design Team

Figure 3.67 West Bike Route

Cognitive Mapping Exercise

Upon returning to the Mitchell Room, participants were provided with a blank piece of paper and pen and instructed to quickly describe their impressions of the tour route. This exercise, known as a cognitive map, provides insight into elements of the tour that were most distinctive to the participant immediately upon their return. Participants were instructed not to be concerned with artistic skill, but rather to map the route or describe the experience to the best of their recollection. The resulting maps are highly individualized, and provide data indicating which features of the creek and trail were significant to the participants.

Likes and Dislikes Mapping Exercise

After completion of the cognitive map, participants were gathered into the group with which they took the tour. Each



Source: Escondido Creek Design Team

Figure 3.68 East Bike Route

Community Outreach: Bike Walk Survey

group was provided a large format map of the route they traveled. On these maps, participants were asked to note features of the creek and trail they liked. Once this exercise was complete, each group was provided with another large format route map in which they were instructed to highlight features they disliked along the creek and trail. These “Likes/Dislikes” (see Appendix A) maps were later analyzed by the design team in order to understand the community’s perception of the current conditions of the creek and trail.

The event concluded with a brief description of the design team’s goal and the planning process, and door prizes were given away. Participants who were interested in providing the design team with additional comments were provided with index cards.

Participants

The Bike Walk Survey benefitted from a high turn-out, with over 60 participants from across the community. Based on a sign-up sheet completed by participants, most participants (95%) live locally or within the Escondido Creek Watershed. While the design team had hoped to recruit residents who live immediately adjacent the Escondido Creek within the city limits, and/or members of the Spanish speaking community, both these demographics were poorly represented.

Promotion of the Event

Announcements of the event were made via e-mail and by printed media such as flyers and posters. Print media was provided in both English and Spanish. Members of the stakeholder network facilitated with distribution of the posters and flyers. Several days prior to the event, the design team canvassed

the neighborhoods within the Mission Park area handing out flyers to individuals and local businesses. For image of flyers distributed, see Appendix A.

Results of the Mapping and Community Input Exercises

Information from the maps was interpreted by the design team and categorized. “Likes” were distilled into seven distinct categories: comments regarding access, destination, educational/historical, experiential (e.g. sights, sounds, smells), habitat, recreation and vegetation. Categories for “dislikes” were distilled into five categories: comments regarding access, degraded habitat/vegetation, experiential,

human impact/development and security/safety. The results from the mapping exercise highlighted what each group liked and disliked about the Escondido Creek Trail.

The results of the ‘likes’ map imply access was the most important element of the participants experience during the tour. Many participants commented positively on the available connections to buses, trains and stores. Conversely, access was also the most commented on element on the ‘dislikes’ maps. Many wrote that they did not like the missing link (between Grape Day Park and the Escondido Transit Center) along the creek trail, the limited access to the trail or the locked gates. Overall, more dislikes about the creek were noted by the groups than likes.



Figure 3.69 Bike Walk Survey

Source: Escondido Creek Design Team

Community Outreach: Design Workshop



Source: Escondido Creek Design Team

Figure 3.70 Design Workshop at the Mitchell Room

Purpose of the Event

The Community Design Workshop was the second community outreach event hosted by the Revealing Escondido Creek design team. The purpose of this event was to identify community priorities for the Escondido Creek and Trail. The workshop was programmed to facilitate community input in the visioning process by involving participants in generating design solutions.

Event Description

Event attendees participated in a design “charrette”, or workshop in which the community actively

participated in the design process by drawing, writing, or creating collages of design ideas for a specific site. This workshop was intended to generate ideas and promote discussion regarding possible design solutions and might also be referred to as a group brainstorming event.

The Community Design Workshop was hosted on a Wednesday evening between 6:30 and 8:00 pm on the 24th of March, 2010, in the Mitchell Room of the Escondido City Hall. The list of invitees was generated from the sign-in sheet developed at the first community event, as well as through outreach conducted by the design team. Many people who attended the Bike Walk Survey event held in

February were also in attendance. Email invitations were sent out to anyone who had contacted the design team as a result of local media exposure or as result of networking within the community of informed and involved citizens by the design team. Flyers advertising the event were posted in windows of local establishments contacted by the design team. These flyers invited anyone with an interest in discussing opportunities for the creek trail to attend with friends or family. It was noted dinner and beverages would be provided and interested parties were encouraged to RSVP the “Reveal the Creek” website if they planned on attending. The flyer included a map of the location of the Mitchell Room at City Hall.

Upon arriving at the event, participants were greeted by a member of the design team, given a name tag and asked to sign-in. Participants were also asked to fill out a ticket for a raffle that would be held at the end of the evening. Attendees were asked to find a seat at one of the six-person tables and to help themselves to food and beverages. Following introductions of the design team and a brief description of the project, the design team described the evening’s activity by explaining that the goal was to explore some possible design alternatives and identify community priorities for a specific site along the bike trail. Each team was provided with a map of the design site, a collection of photos intended to generate discussion or help them express their ideas and inspire design solutions, and drawing materials. The design site for the charrette was the roughly 5.5 acre, city-owned property at the corner of Ash and Washington Streets. Each team worked on the same design site so as to facilitate analysis of the design responses. The design team provided support for the participants by answering any questions, ensuring each team had adequate supplies, and monitoring the time to make sure

Community Outreach: Design Workshop

the event stayed on schedule, but the team did not participate in the design portion of the charrette.

In order to get the teams started and to provide a basic level of stimulation, a list of 12 questions was provided at each table along with inspirational images and drawing materials. These questions prompted attendees to think about how they would like to be able to use the trail, what could be done to accommodate different demographic groups such as seniors and children, and what could be done to accommodate wildlife or make the trail more attractive. The list of questions also prompted participants to consider their “craziest” (most extravagant) design ideas for the trail as well as how they might address safety concerns. Teams were encouraged to not only collaborate on design responses among themselves, but also to discuss issues and design ideas with other groups. How the teams chose to represent their designs was a matter of their own discretion; some teams chose to use the inspiration photos in lieu of drawing features on the site plan. See figure 3.71, 3.72 and Appendix B for design map examples.

After the teams completed the charrette, they were asked to select two members who could then present their ideas to the larger group. These presentations were recorded and studied by the Revealing Escondido Creek design team during the analysis of the workshop. These presentations provided insight into the intentions and design ideas of each team. Several teams elaborated on their design by verbally articulating design alternatives that had not been drawn on their paper site plan. Attendees were encouraged to ask questions and comment on their fellow participants’ designs. Finally, the design team drew names out of a hat to raffle off items related to the project such as bike bells and tee-shirts, and thanked

everyone for their participation and the City for its assistance and accommodation.

Participants

The Community Design Workshop built upon the network of participants who had attended the Bike Walk Survey. Participants from the first event were invited to the design workshop through a series of email invitations. The design team expanded the range of the event promotion beyond its established list by telephoning community groups, churches, neighborhood organizations or others who may not have heard about the project or attended the

first event. As a result of this expanded outreach, over half the participants in the Community Design Workshop had not attended the Bike Walk Survey. The Community Design Workshop was well attended with 40 participants, all of whom were residents of the city or watershed.

Promotion of the Event

For this second community event, which would be held on a weeknight in March, the design team made an increased effort to recruit participants. Announcements of the workshop event were made via email to lists generated by the Bike Walk Survey,



Figure 3.71 Example 1 of Design Map

Source: Escondido Creek Design Team

Community Outreach: Design Workshop

as well as through the “Reveal the Creek” website. Printed flyers and posters were distributed in the community by members of the design team as well as by members of the stakeholder network. In an attempt to include members of the communities living along the creek in the city, print media was provided in both English and Spanish, and the design team contacted the neighborhood groups directly to extend invitations to residents living along the creek. However, as with the first event, the residents living adjacent the Escondido Creek, and/or members of the Spanish speaking community were an underrepresented demographic at the event. While the design team made no attempt to

survey attendees about their ethnicity or cultural identity, the participants were all English speakers. For images of flyers distributed see Appendix B.

Method

To distill the information on the maps, the design team categorized each image the participants chose to stick on the map according to its representation and the accompanying comments. In addition, the group presentations were recorded and the recordings were viewed by the design team to identify additional information and/or comments about their design recommendations.

Results

The results from the design mapping exercise highlighted what each group wanted to see or experience within the given boundaries indicated on the map (between Ash Street and Harding Street along the Escondido Creek Trail). There are a total of 45 different amenities and features which are shown in Appendix A. The design responses were categorized based on content into seven categories: stewardship and awareness, access and connection, safety, improving the ecology, beautification and comfort, program and activities, and amenities. Each amenity or feature was ranked according to its frequency of occurrence. For example, all seven groups expressed interest in having decorative gates/fences, thus this generated a total of seven points. Only group five wanted to have access to creek water; therefore, access to creek water was assigned one point.

A range of design solutions were proposed by the teams which then emerged into themes. The common themes included amenities, safety, site program and activities, beautification and comfort, access and connections, improving the creek ecology, and stewardship and awareness, see Appendix B.

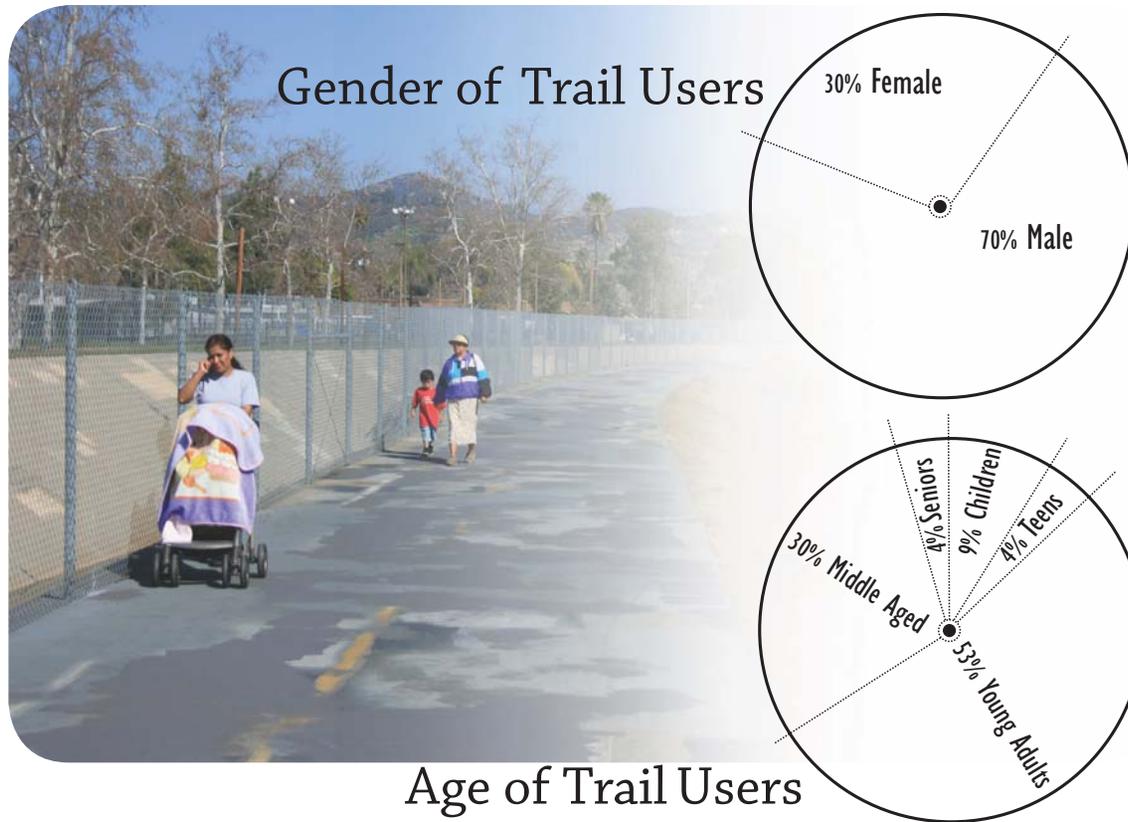
The design team divided the amenities and features suggested by the designs into a high priority group and low priority group. The high priority group had at least four or more points and the low priority group had three points or lower. Some of the amenities and features categorized in the high priority group were picnic tables, signage, bench, bridges, and dog amenities. With this information, the design team developed a better understanding of what the community wanted to see in the design for the Escondido Creek Trail.

Source: Escondido Creek Design Team



Figure 3.72 Example 2 of Design Map

Community Outreach: Behavior Observations



team's understanding of who the primary trail users were as well as the nature of their trips. It also laid the foundation for an understanding of some of the issues these primary users contend with as they use the trail to navigate their daily lives.

In order to better understand how residents in one of the most dense residential areas adjacent to the creek use the trail, the design team focused on observing the bicycle and pedestrian traffic at one of the primary crossing points along the entire stretch of the creek trail, the Date Street pedestrian bridge. The bridge at Date Street provides a direct connection from a largely residential portion of Escondido to one of the city's primary commercial areas and transit corridors. Observations were divided into two separate time frames on weekdays, when weather would not be a factor, so that the design team would be able to realistically extrapolate how the residents made use of this pedestrian crossroads. The two time frames focused around mid-afternoon when students would likely be taking advantage of the ability to travel both parallel and perpendicularly to the creek, and early evening, when nearby residents would be heading home.

Source: Escondido Creek Design Team

Figure 3.73 Behavior Observation Results

Purpose of the Method

To better understand how and where the trail was currently being used, the design team conducted behavior observations and user interviews along the creek channel

Method

On three separate weekdays in February of 2010, the design team performed behavior observations

along the trail. The first set of observations were made on a Friday between the hours of 10:00 am and 6:00 pm. This exercise involved all four members of the design team riding bicycles along the entire length of the trail. Team members made note of trail users' gender, age, mode of transportation, the type of trip it appeared they were engaged in, and the location of the user. This initial examination of the creek trail during the course of a typical weekday informed the design

In order to minimize the intrusiveness of the behavior observations, only two members of the design team participated in actively counting the users of the Date Street pedestrian bridge while the other team members took pictures of and made notes about the surrounding neighborhood. In all cases, when the design team interacted with or observed the users of the creek trail, the team made every effort to minimize obtrusiveness and remain respectful of the community and the people using the creek trail.

Community Outreach: Behavior Observations

Results

A total of 129 people were observed using the trail in observations made between the hours of 10:00 am until 6:00 pm. The majority of users during this time were young male adults between the ages of approximately 18-30. However, all ages and both genders were represented during this extended period of observation.

In terms of use of the trail, the team observed that overwhelmingly trail users are walkers: 86 people were observed walking the trail, while 38 people were traveling by wheeled transport (which was divided into 34 bicycles and four skateboards). The team made assumptions on type of trip, utilitarian versus recreational, based upon cues from the trail user such as the carrying of grocery bags or the wearing of sports gear. Eighty percent of the trips observed appeared to be utilitarian in nature.

The highest trail use appeared to be in the Mission Park district between the intersections of Citrus Street and Broadway. A weakness in the traveling nature of this observation method may indicate vulnerability in this conclusion. However, subsequent observations by the design team, population density, and the mixed-use nature of the land use of the neighborhood would support that the heaviest trail use is within this district.

One final important observation made is that between the hours of 10:00 am and 2:00 pm, 25% of women observed using the trail were observed with strollers and small children. This observation indicates that this trail is used by families with young children.



Figure 3.74 Behavior Observations at Date Street

Source: Escondido Creek Design Team

Community Outreach: User Interviews



Source: Escondido Creek Design Team

Figure 3.75 User Interviews at Grape Day Park

Purpose & Method

Interviews were conducted by the design team between Broadway and Date Street. The design team approached all passersby unless an interview was being conducted. Interviews were conducted between the hours of 2:00 pm and 5:00 pm during a weekday in February of 2010. A series of questions were used based upon interviewee’s responses. In an effort to minimize perceived invasiveness by a group of four people asking questions, and maximize respondents willingness to participate, the design team divided into two pairs. Interviews were conducted with trail users along the creek channel as well as off-trail interviewees on a street nearby the creek—East Valley Parkway. A total of 24 different people were approached for interviews, and 22 were willing to participate in the interview.

Interviews were conducted in English and Spanish depending on the preference of the individual being interviewed. Of the 22 interviews, 13 interviews were conducted in English and nine in Spanish.

Two sets of questions were developed depending on the immediate location of the interview in relationship to the creek. The number of questions asked of a participant varied depending on the answers provided (see following for list of questions); however, questions were limited to five questions for on-trail interviews and six for off-trail interviews.

On-Trail Questions:

1. Can you show me where the Escondido Creek is?
2. How often do you use the trail?

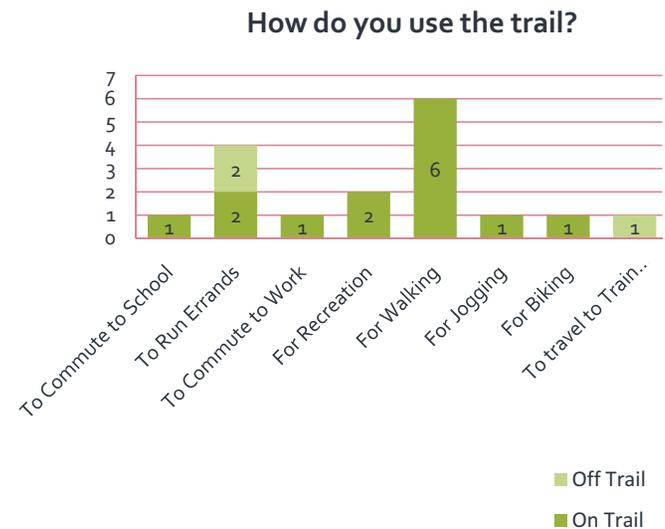
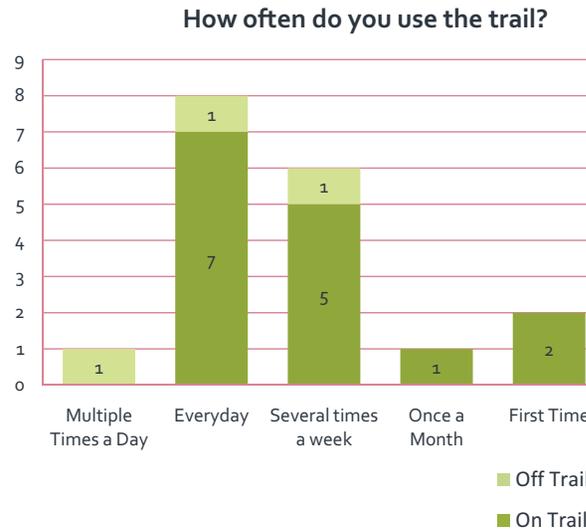
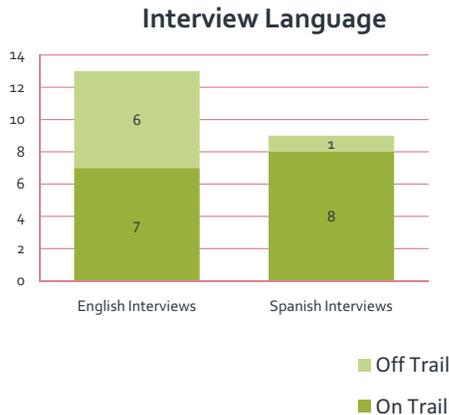


Figure 3.76 Interview Results

Community Outreach: User Interviews

- 3. How do you use the trail?
- 4. What time of day do you use trail?

Off-Trail Questions:

- 1. Can you show me where the Escondido Creek is?
- 2. Can you tell me where the bike trail is?
- 3. Do you use the trail?
- 4. How often do you use the trail?
- 5. How do you use the trail?
- 6. What time of day do you use the trail?



Source: Escondido Creek Design Team

Figure 3.77 Design Team Collecting Data



Figure 3.78 Interview Results

Community Outreach: User Interviews

Results

The results of the interviews are represented in figure 3.76, 3.78 and 3.80. One surprising discovery illuminated by the interviews is that 17 of 22 respondents when asked, “Can you show me where the Escondido Creek is?” could not properly identify the location of the Escondido Creek. Even more surprising is that 12 of those respondents were unable to identify the creek while standing on the creek trail immediately adjacent the creek, see figure 3.79. In addition, of the 22 people interviewed, only two people responded they use the trail at night.

Implications for the Project

The trail provides vital access for people living along the Escondido Creek to local businesses, community facilities and recreational opportunities. Originally intended to be a bicycle path, the trail is more commonly used as a pedestrian corridor for short utilitarian trips. Several of the interviewees advised they lack a vehicle and/or license to drive and rely on the trail for running errands and commuting to work. For this reason, opportunities exist to expand the scope of the trail to better accommodate the mix of user types, both bicycle and pedestrian, and meet the needs of individuals, families, the young and the elderly.

17 of 22 (77%) respondents could not locate the creek while standing on the trail.



Source: Escondido Creek Design Team

Figure 3.79 Proximity of Trail to Escondido Creek

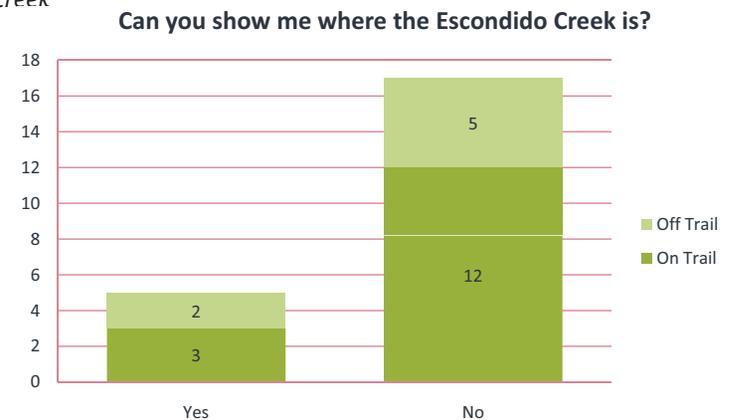


Figure 3.80 Interview Results

Community Outreach: Community Survey



Source: Escondido Creek Design Team

Figure 3.81 Community Leader, Juan Arjona Distributing Surveys

Purpose & Method

In order to gain a broader understanding of the community's priorities regarding the creek and the future of the trail, the design team developed a short survey. Community participation was a key component of the initial proposal and an important consideration for the team during the design phase. A survey allowed quantitative data on community preferences to be collected on specific potential creek improvements. The survey consisted of a brief introduction to the 606 Studio at Cal Poly Pomona,

an explanation of the nature of the relationship of the studio to the City of Escondido, and a short description of the purpose of a vision plan. The survey was conducted as part of the Community Design Workshop.

The survey began by inquiring about the habits of the trail users, impressions of the trail, hopes for the future of the trail, and impacts resulting from a potential redesign of the trail. Survey participants were then asked to rank the issues they thought were most important regarding the Escondido

Creek Trail from a predetermined list. The list of items included environmental concerns, safety, the experience of people visiting the trail, the amenities found along the trail, wildlife and habitat, water quality, and the aesthetics of the trail.

The final and largest part of the survey was devoted to determining the relative importance of 27 creek-related concepts and items. Items on the list ranged from the conceptual importance of providing children with safe routes to school and community gardens to less abstract items such as garbage cans, benches and drinking fountains.

Results

In order to gain a basic understanding of how residents felt, participants were asked to rank the importance of seven issues that represent broad conceptual categories. This "issues ranking" portion of the survey included environmental issues, safety, visitor experience, amenities, wildlife and habitat, water quality and aesthetics. The results of this portion of the survey indicated how residents generally compare these issues. When given a choice between these seven issues, respondents indicated a clear preference for safety, with nearly twice as many people indicating safety was more important than either "amenities" or "water quality" (see figure 3.82). Aesthetics and environmental issues ranked above visitor experience and wildlife and habitat, but was roughly 25% less favored compared to safety.

The accompanying graph (see figure 3.83) shows the detailed results of the 27 creek-related concepts and items from the community survey. Rated items are listed across the bottom of the chart. Vertical

Community Outreach: Community Survey

bars show the relative importance of each item. Green represents a ranking of “important” or “very important,” yellow is a neutral opinion of the item’s importance, and red represents a response of “not important” or “not at all important.”

Implications for the Project

The results of the community survey suggest that the respondents believe that issues of safety are more important than aesthetics, environmental concerns or amenities along the creek. When the respondents were asked to compare the importance of a broad range of amenities or programming solutions, of minimal importance to the survey respondents were fishing areas, water recreation and equestrian trails. Respondents were nearly equally split on whether sports fields and shopping or entertainment areas along the creek were important. Trail amenities such as drinking fountains, signage, benches and picnic areas were generally considered important by the majority of the respondents, along with community and habitat-building elements such as art displays,

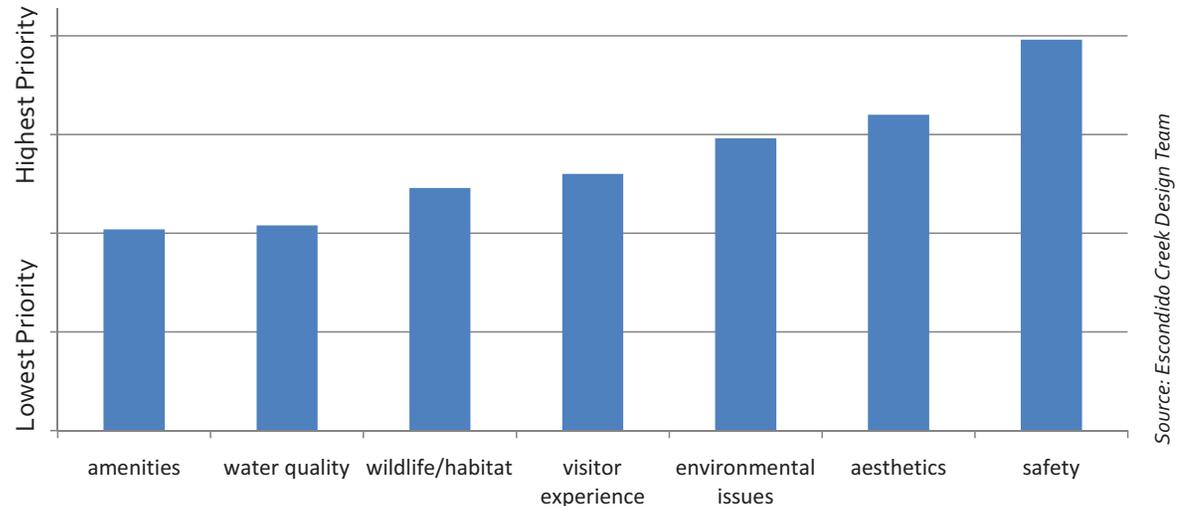


Figure 3.82 Community Survey Results Ranking of Issues

bird watching areas and safe routes to school. Nearly all respondents believed police bicycle patrols were as important as more aesthetically-oriented elements like trees, turf and shrubs. The usefulness of the trail to neighborhoods and

the community was clear as items such as increased connections into nearby neighborhoods, regional trails and bridges proved to be equally important to more tangible items such as garbage cans and lights.

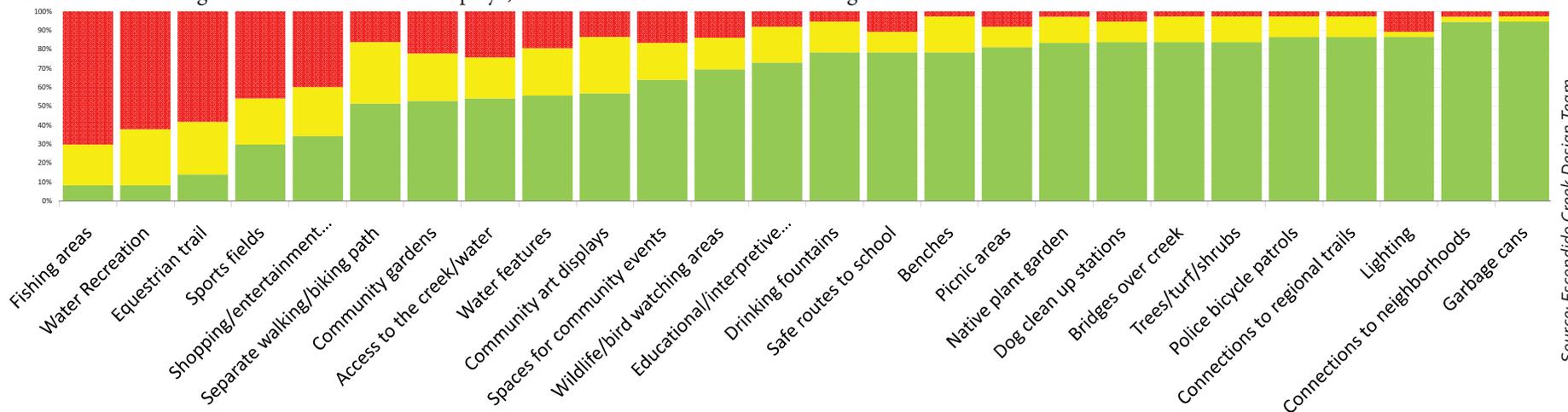


Figure 3.83 Community Survey Results Importance Ranking of Amenities

Community Outreach Summary

By incorporating a variety of outreach methods, the design team was able to form an accurate understanding of the issues, as well as constraints and opportunities that exist for any plan to improve or reimagine the Escondido Creek and Trail. Using just one, two or even three methods would have resulted in an incomplete understanding of the issues, the residents of the neighborhoods adjacent to the creek and the community's needs and desires.

Stakeholder Meetings

Meetings with stakeholders laid the groundwork for the team's understanding of the key environmental issues associated with the channel including the accumulation of sediment in the channel bottom and eutrophication caused in part by urban runoff. These stakeholder meetings also informed the design team about the issues of safety associated with the creek trail which involved both criminal activity as well as the safety of trail users negotiating the many unmarked crossings that intersect the creek. It was through these meetings that the design team first learned about the demographic makeup of the neighborhoods which surround the creek as well as the financial constraints faced by residents in these neighborhoods. The financial opportunities and constraints that the City of Escondido faces also came to light through discussions with various stakeholders and informed the design team's understanding the necessity of phasing various aspects of the project. Meetings with city personnel were particularly helpful in developing the design team's understanding of policy issues related to the creek, as well as the history of the channel and bike trail.

In addition to stakeholder meetings with city and conservation agency staff, the design team met with

members of the Escondido police force. These meetings were invaluable in understanding the nature of the crimes that occur along the creek trail, the issues faced by law enforcement trying to patrol the trail and how recent budgetary constraints have directly impacted law enforcement's ability to maintain public safety along the creek trail. With the aid of cooperating members of the police force, the design team was able to visit the creek trail at night and experience first-hand some of the issues that residents and users face.

The final group of stakeholders the design team met with were people who had no official capacity within the city, but who were nevertheless involved, informed or well connected in the community. This group was instrumental in helping the design team understand the dynamics of personal relationships between various groups and agencies involved in work throughout the watershed.

Bike Walk Survey

The Bike Walk Survey was instrumental in helping the design team understand the participant's values



Figure 3.84 Walkers at the Bike Walk Survey

Source: Escondido Creek Design Team

Community Outreach Summary

and desires with respect to not only the creek, but to the City of Escondido as a whole. Residents who participated in the Bike Walk Survey were able to express their feelings on the bike trail, the creek, and the interaction between users of the bike trail and automobile traffic. The Bike Walk Survey illustrated the importance of users being able to enter and exit the creek trail when they desired and their affinity for wildlife in the creek.

Community Design Workshop

By hosting a design charrette, the design team was able to learn much more about the communities' preferences for what amenities they would like to see incorporated into designs for the creek trail. This exercise allowed participants to articulate in concrete terms what items they would like to see and where, which was very useful to the design team when it came time to begin the process of designing sites along the creek. When given the opportunity to design a park themselves, participants expressed the greatest interest in tangible and material items such as picnic tables, benches, dog amenities, playground equipment, exercise stations and garbage cans. Participants also expressed interest in more infrastructural elements like pedestrian bridges crossing the creek and divided bicycle and pedestrian trails. Instituting a police presence in the space was also important to the participants.

Community Survey

By using a survey to poll participants directly, the design team was able to gather data on the priorities of the trail users and residents of Escondido. In keeping with some of the other findings, the community survey showed that trail users were primarily interested in

trail amenities and safety. Participants rated the importance of items such as garbage cans, picnic tables, benches, drinking fountains and lighting highly while giving relatively low ratings to fishing and water recreational areas.

Behavior Observations & User Interviews

The design team's exercise in observing the users of the creek trail also yielded important results, particularly with respect to the nature of the trips being taken by users as well as the demographics of the trail users. Notably, information the design team collected during observations differed from initial feedback provided in some of the early stakeholder meetings. By observing who was using the trail and when, the design team was able to determine that the majority of users of the creek trail were nearby residents taking utilitarian trips rather than people using the trail for recreation. This factor led the design team to understand the ultimate needs of the residents differently and to create designs that addressed practical concerns of safety and neighborhood accessibility. Observations also informed the design team's understanding of how often the trail was used, a finding that was ultimately bolstered by user interviews. By talking to users of the creek trail, the design team was able to learn that the trail played a significant role in the daily lives of many of the nearby residents.

Conclusions from Community Outreach

The five methods of community outreach provided complementary data on the needs of the community and the environment. Stakeholder



Figure 3.85 Participants at the Bike Walk Survey

Source: Escondido Creek Design Team

meetings provided the design team with data on the community's environmental concerns, safety concerns and aesthetic desires, findings confirmed by the community events. Data collected through interviews informed the team's understanding of demographics and trail use, which corroborated information gathered through conversations with law enforcement and observations. Finally, community desires expressed at outreach events matched data collected through surveys and interviews with trail users. Eventually, all of this data led the design team to appreciate that the community would like to see the Escondido Creek Trail become a safe, pleasant conduit through the city that addresses basic environmental concerns and provides destinations, features, and amenities.

Project Context Summary

As this section of the document demonstrates, the creek trail and the City of Escondido are brimming with potential. Although significant challenges lay before the City of Escondido, the issues are not insurmountable. The unique characteristics of the watershed and the exceptional qualities of the residents offer solutions to the issues the team has outlined.

Identifying and developing existing resources in order to cultivate quiet change will undoubtedly be one of the significant challenges for the city. However, the steps needed to re-imagine Escondido Creek and Trail are both large and small, but as this section illustrates, the foundation upon which to build the change is strong.

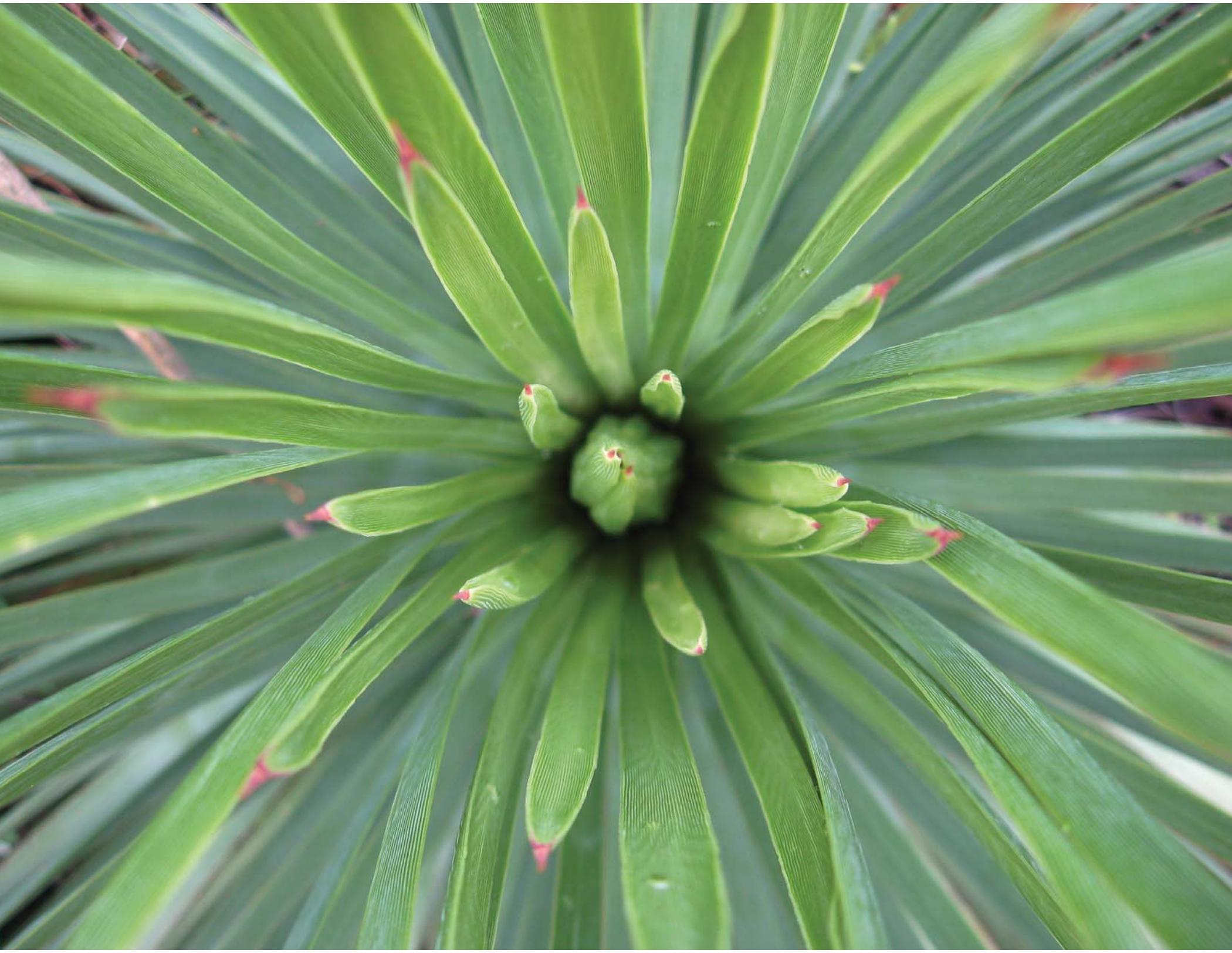


Source: Escondido Creek Design Team

Figure 3.86 Jeff Lindeneau's "Community" Sculpture at West Valley Parkway and Tulip in Escondido

Section 4

DESIGN PROCESS



Framework of the Project

In order to fulfill the goals and objectives developed at the outset of the project, a framework of design criteria was constructed. The three elements of the design framework are Bridge, Collect and Discover. This framework was used as a guide for design decisions. As site designs were developed, each solution was assessed to determine if the response met the criteria of the design framework—design solutions that did not meet the framework were not considered.

Each of the three framework elements include socio-cultural, environmental and economic design responses.

- Socio-culturally, **Bridge** design elements connect community across the creek and the city. They Environmentally connect the public to the local ecology, and build Economic connections by providing increased access to local businesses.
- Socio-culturally, **Collect** design elements provide public gathering areas. Environmentally, they collect stormwater and create habitat, and Economically they collect design elements and concentrate shoppers along the Escondido commercial corridor.

- Socio-culturally, **Discover** design elements provide community gardens and farmer’s markets. Environmentally, they raise awareness through signage and educational programming, and Economically, they promote business by featuring local entrepreneurs.

Three icons have been developed to highlight features specific to the frames, see table 4.1. Figure 4.1 illustrates possibilities for each framework.

	 Bridge <i>Connecting</i>	 Collect <i>Gathering</i>	 Discover <i>Programming</i>
Sociocultural:	Connect community across creek & town	Provide public gathering areas	Community gardens, farmer’s markets
Environmental:	Connect public to local ecology	Collect stormwater, creating habitat	Signs identifying location of creek
Economic:	Provide access to local businesses	Bring shoppers into Escondido	Feature local businesses

Table 4.1 Framework Chart

Framework of the Project



Figure 4.1 Framework Diagram

Source: Escondido Creek Design Team

Using Character Areas as a Design Tool



Source: Escondido Creek Design Team

Figure 4.2 City of Escondido

Purpose

Distilling extensive data is arguably one of the most challenging tasks any contemporary design team undertakes. In an effort to better understand the nuances of the project area, the project site along the Escondido Creek was divided into distinct stream reaches. The logic behind this approach is based on two facts: the creek is the dominant feature of the project, and the creek bisects the city.

Stream reaches were distinguished based upon analytic as well as phenomenological qualities perceived through the senses. Stream reaches were distinguished by:

- Sensory phenomenon

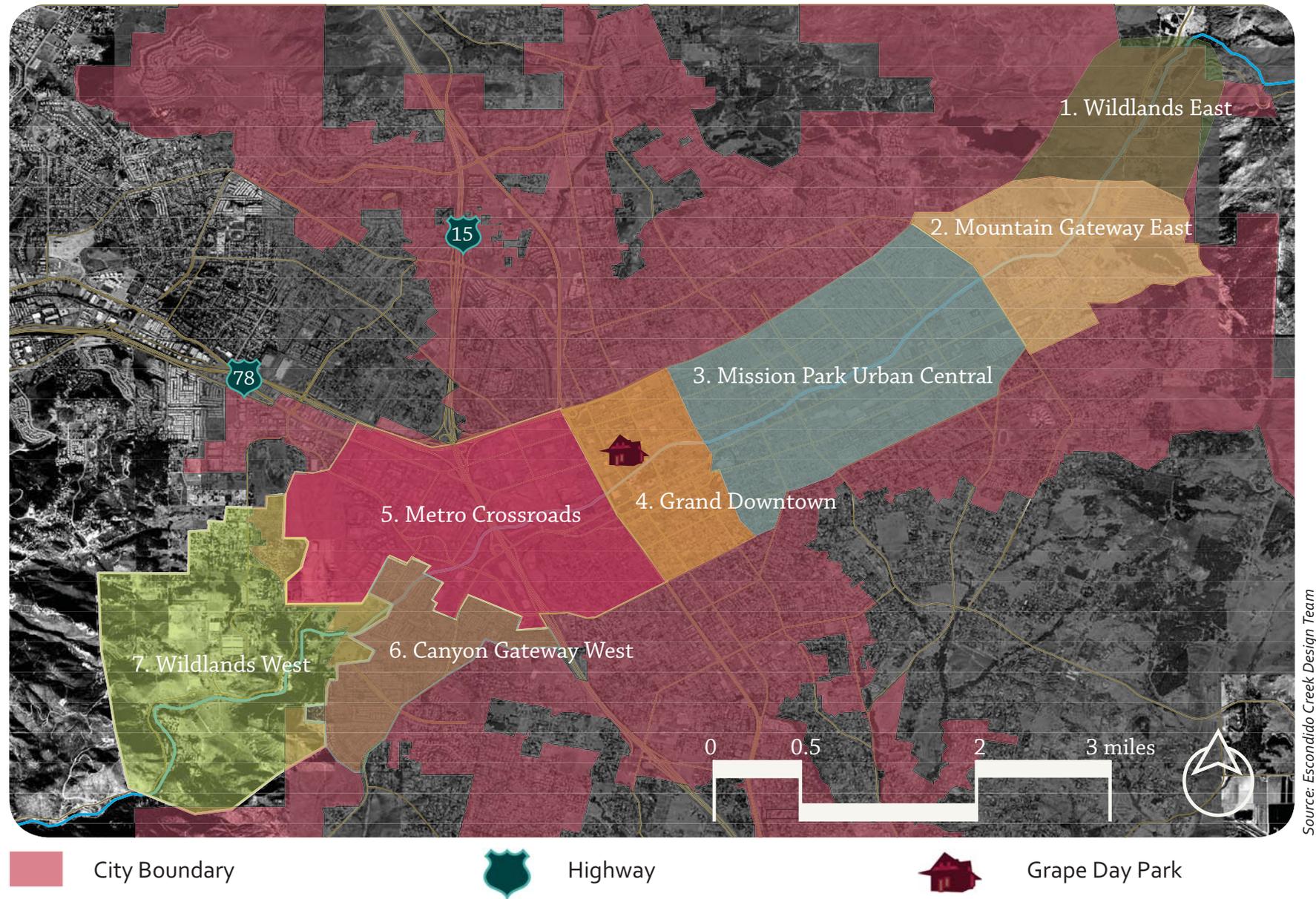
- Land use
- Building density
- Building orientation

Description of Stream Reaches

From this analytic process, seven stream reaches along the Escondido Creek within the City's sphere of influence emerged. The boundaries of these units are loosely drawn and represent a general area rather than a finite location. Each defined reach extends not only along the creek, but also reaches laterally into adjacent areas, as indicated on the map (figure 4.3).

From East to West, the seven stream reaches identified are: Wildlands East, Mountain Gateway, Urban Central, Grand Downtown, Metro Crossroads, Canyon Gateway West, and Wildlands West. This process allowed the design team to become familiar with the terrain and character of different areas and distinguish the unique qualities of those areas. This enabled the team to develop designs that harmonize with the surrounding context of the Escondido Creek.

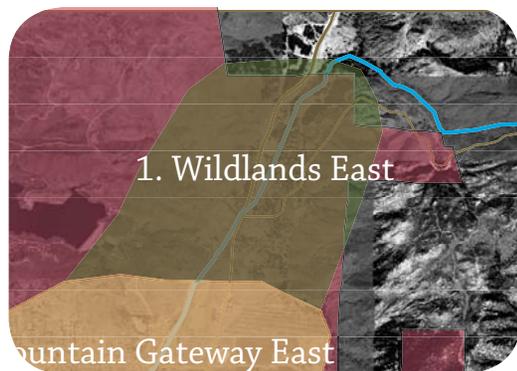
Using Character Areas as a Design Tool



Source: Escanido Creek Design Team

Figure 4.3 Character Areas Location Map

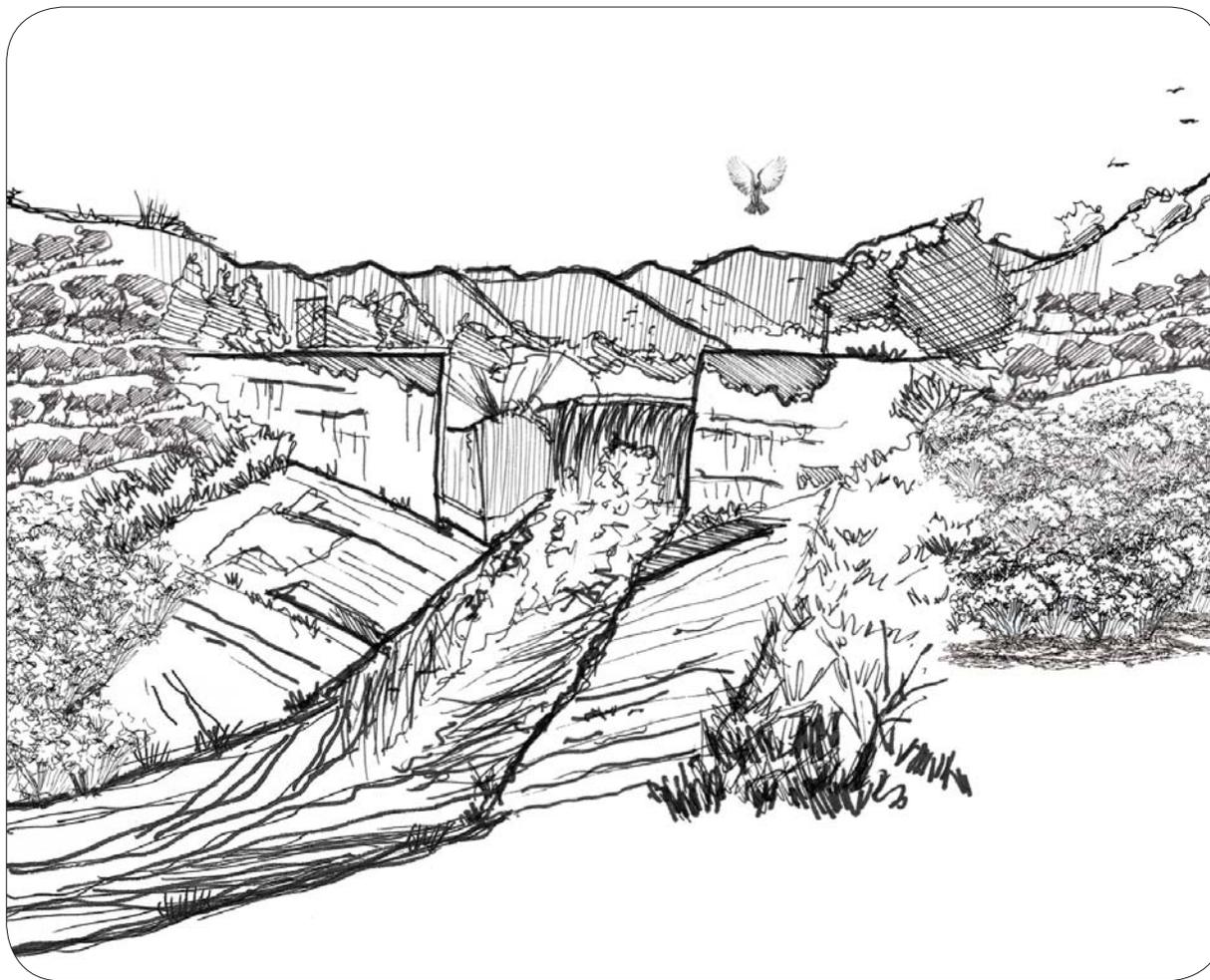
Character Areas: Wildlands East



Source: Escondido Creek Design Team

Figure 4.4 Wildlands East Key Map

Wildlands East, the easternmost stream reach, is nestled between Stanley Peak and Bottle Mountain. The area is defined by a wild landscape with much undeveloped land. Views of the local hills dominate this landscape and coastal sage scrub surrounds the area. This stream reach features the much loved Mayflower Dog Park, local farm stands, and access to hiking opportunities. It is within this stream reach that the Escondido Creek enters the de-siltation basin and transitions from a natural creek to the concrete flood control channel. There is also a direct, uphill connection to Lake Wohlford. The creek corridor through Wildlands East is distinguished by a permeable and soft edge, earth tone colors, and an open overhead plane allowing abundant light to fill the area. Raptor calls and the scent of sage define this area.



Source: Escondido Creek Design Team

Figure 4.5 Wildlands East

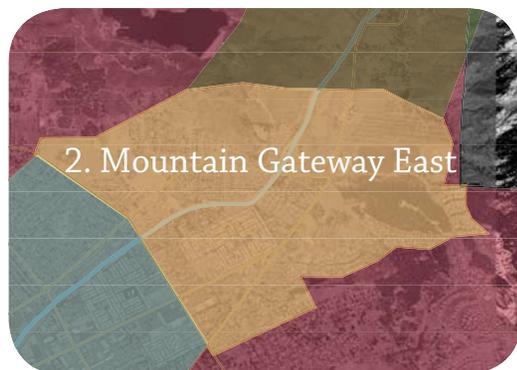
Character Areas: Wildlands East



Figure 4.6 Wildlands East

Source: Escondido Creek Design Team

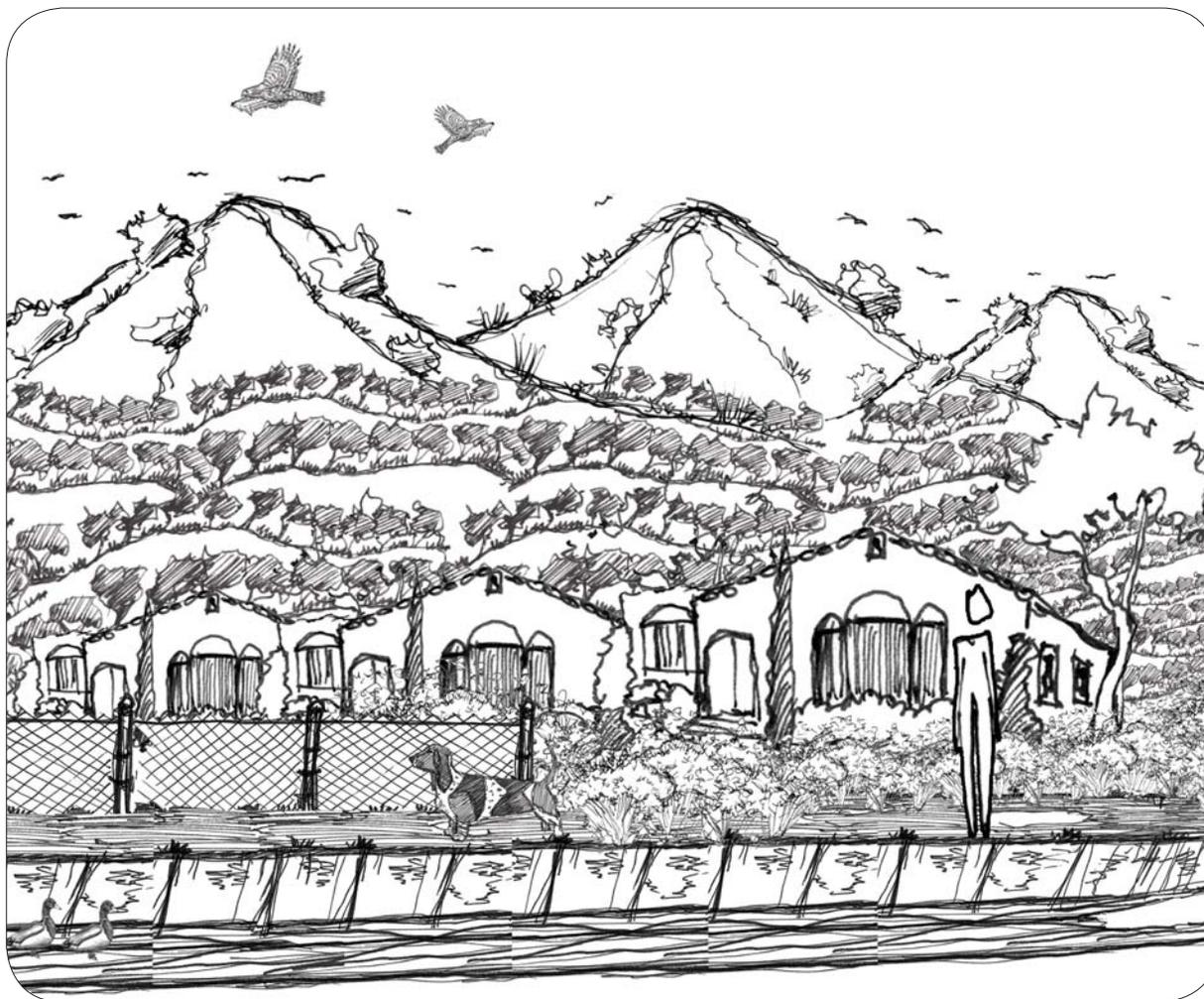
Character Areas: Mountain Gateway



Source: Escondido Creek Design Team

Figure 4.7 Mountain Gateway Key Map

Mountain Gateway East is marked by an increase in the types of land use and is distinguished by low density residential one and two storey housing. Within this stream reach, connections from the Escondido Creek to Daley Ranch and Dixon Lake can be made and great views of the local hills are visible from the trail. The creek corridor through Mountain Gateway East is distinguished by an undulating edge as homes are located in varying locations on their lots. Dappled light and shadows play through a mature canopy but the overhead plane is relatively open. Colors in this stream reach are dark green, silver, and earth tones. The sounds of suburban life define this area.



Source: Escondido Creek Design Team

Figure 4.8 Mountain Gateway

Character Areas: Mountain Gateway



Figure 4.9 Mountain Gateway

Source: Escondido Creek Design Team

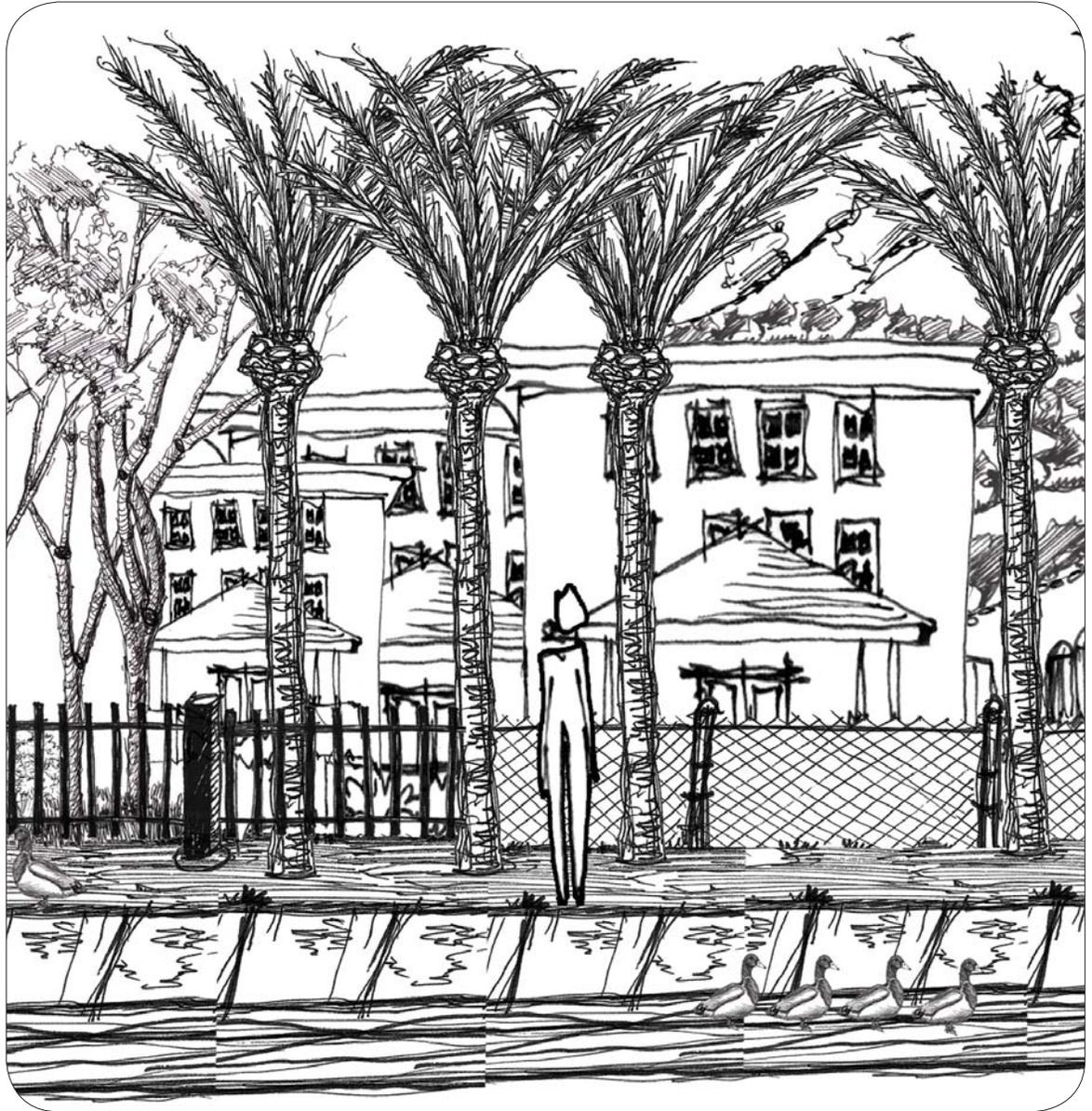
Character Areas: Urban Central



Source: Escondido Creek Design Team

Figure 4.10 Urban Central Key Map

The population and building density increases in the Urban Central stream reach. Buildings are multi-storied, frequently abutting the creek corridor. This area has the highest concentration of low income households. This section of trail is the most heavily used of all the stream reaches. Typically within this stream reach, the north side of the creek is residential while commercial and institutional uses line the south side. The Urban Central stream reach is distinguished by a rectilinear, narrow profile. Shadows from palms and buildings punctuate the trail and colors of white, grey, orange, and tan emphasize the creek corridor. Sounds of traffic fill the spaces between the channel walls.



Source: Escondido Creek Design Team

Figure 4.11 Urban Central

Character Areas: Urban Central



Figure 4.12 Urban Central

Source: Escondido Creek Design Team

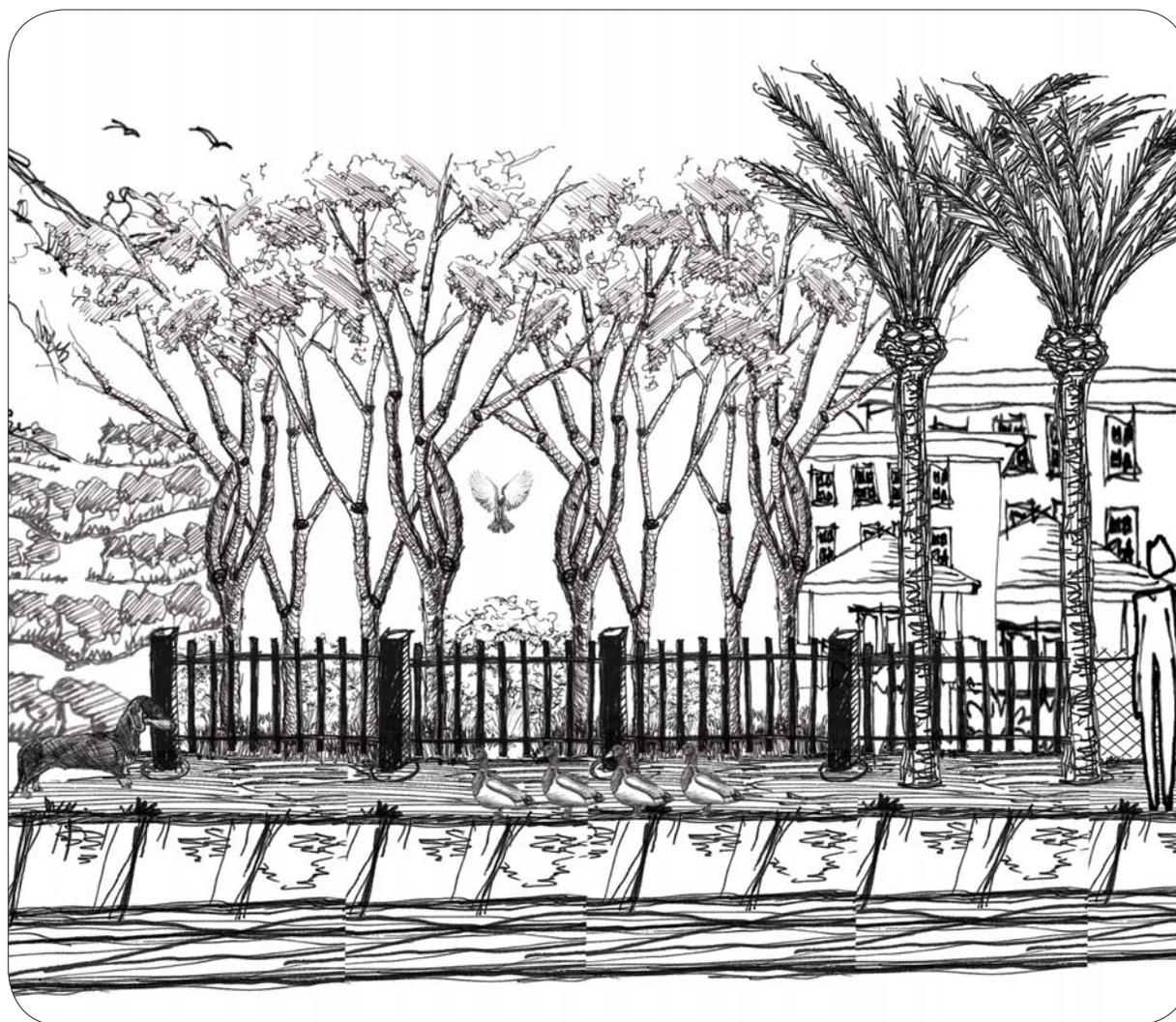
Character Areas: Grand Downtown



Source: Escondido Creek Design Team

Figure 4.13 Grand Downtown Key Map

The Grand Downtown stream reach includes both residential and commercial districts. Population density and the variety of land use are both high. City Hall, Grape Day Park, and the California Center for the Performing Arts are all central to this area. A weekly farmer’s market enlivens the area and the historic downtown core showcases the district’s past. The edges along the creek channel are very narrow in this stream reach, limiting the viewshed to the immediate landmarks. Tall, mature trees and utility poles shape the overhead plane. Pastels, tans, whites, blues, and dark green colors paint the landscape, and the shadows and sounds are urban in texture.



Source: Escondido Creek Design Team

Figure 4.14 Grand Downtown

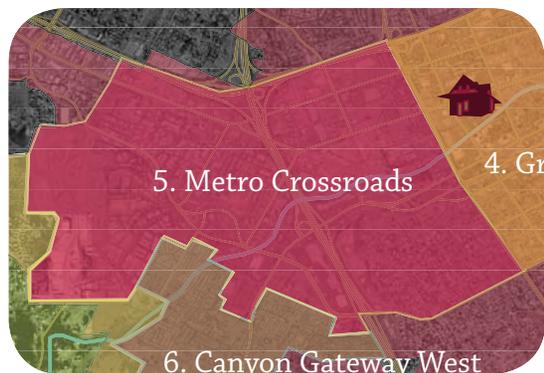
Character Areas: Grand Downtown



Figure 4.15 Grand Downtown

Source: Escondido Creek Design Team

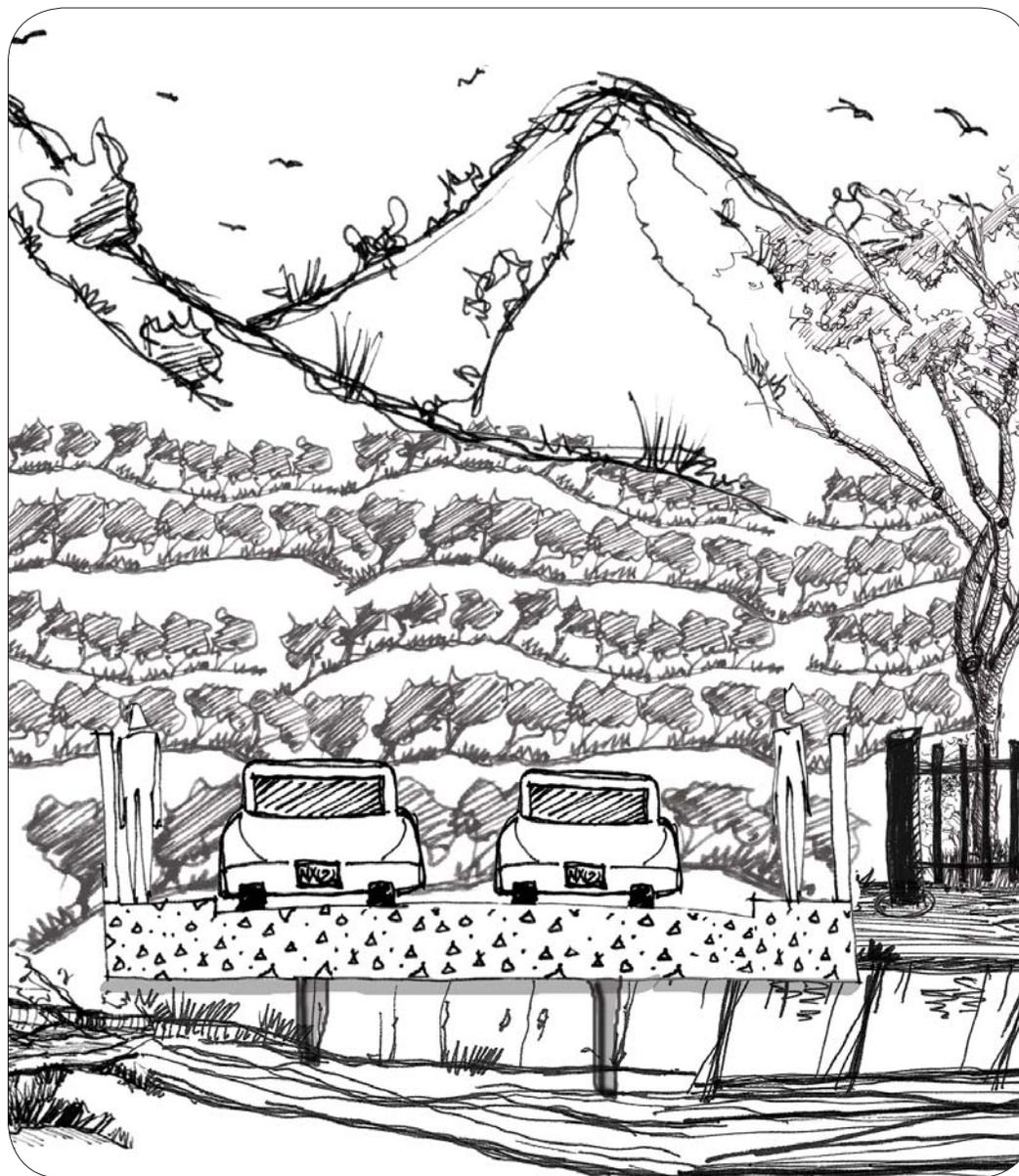
Character Areas: Metro Crossroads



Source: Escondido Creek Design Team

Figure 4.16 Metro Crossroads Key Map

Metro Crossroads is a bustling district defined by industrial and commercial land uses. This stream reach connects the Escondido Creek regionally via the Escondido Transit Center, the Inland Rail Trail, the Centre City Parkway bike trail and the vehicular route along Interstate 15. A setback between buildings and the creek begins in this reach. Shadows distinguish both rectilinear and organic forms. Surprisingly, the overhead canopy along the south sides of the channel is outlined by mature trees creating colors of dark and lime green to match the pastels, silver, gray, and white of the infrastructure.



Source: Escondido Creek Design Team

Figure 4.17 Metro Crossroads

Character Areas: Metro Crossroads

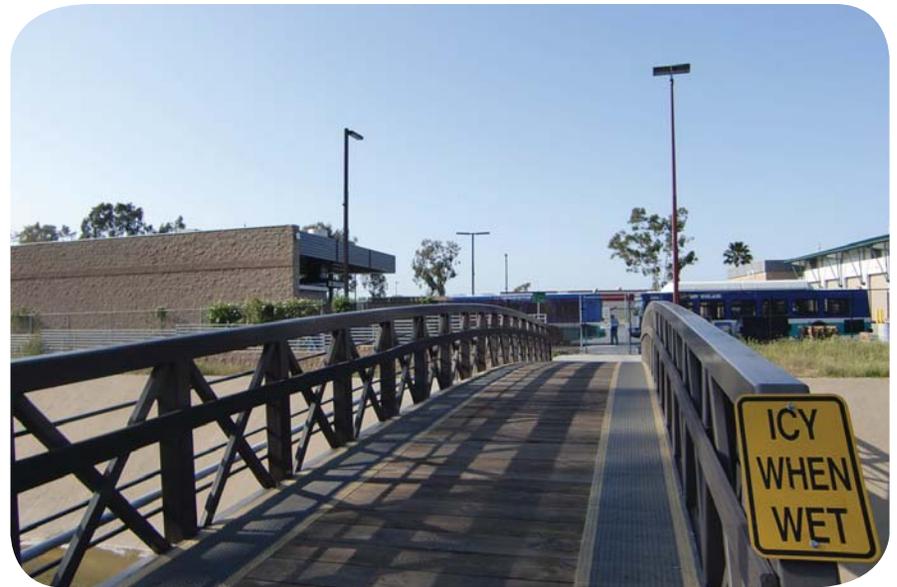
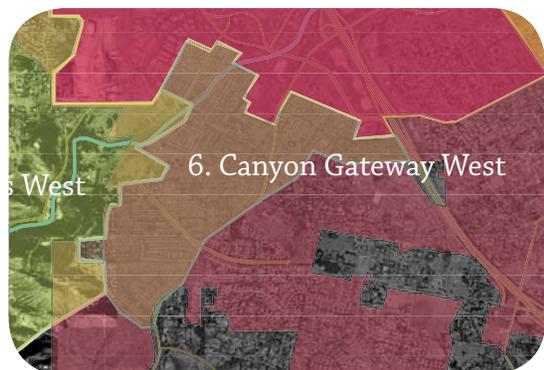


Figure 4.18 Metro Crossroads

Source: Escondido Creek Design Team

Character Areas: Canyon Gateway West



Source: Escondido Creek Design Team

Figure 4.19 Canyon Gateway West Key Map

Canyon Gateway West returns the creek corridor to a residential setting. Connections in this area can be made to the much loved Stone World Brewery, Palomar Hospital, the Escondido Research & Technology Center and, via Harmony Grove, to the Pacific Ocean. Square, stocky buildings create an edge to the creek corridor that is tight, short, and rectilinear. Light pours in through an open overhead plane. The corridor is awash in colors of cadet blue, avocado green, ash brown, orange, and tan.



Source: Escondido Creek Design Team

Figure 4.20 Canyon Gateway West

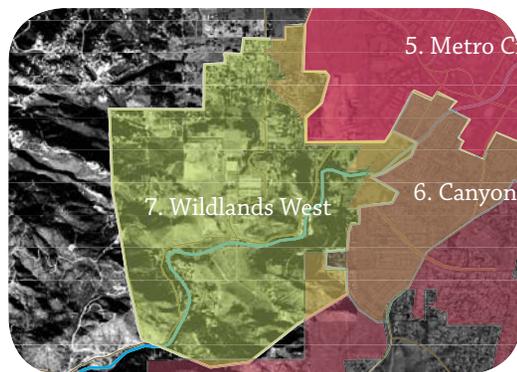
Character Areas: Canyon Gateway West



Figure 4.21 Canyon Gateway West

Source: Escondido Creek Design Team

Character Areas: Wildlands West



Source: Escondido Creek Design Team

Figure 4.22 Wildlands West Key Map

As the creek enters the Wildlands West stream reach, it leaves the flood control channel and returns to an open riparian channel. Land uses in this stream reach are a mix of open space, agriculture (mostly equestrian), very low density residential and minimal industry. Tree canopies define a soft edge and overhead plane along the creek corridor. Light is dappled through willows and casts colors of ash brown, green, yellow, and light blue.



Source: Escondido Creek Design Team

Figure 4.23 Wildlands West

Character Areas: Wildlands West



Figure 4.24 Wildlands West

Source: Escondido Creek Design Team

Character Areas Section

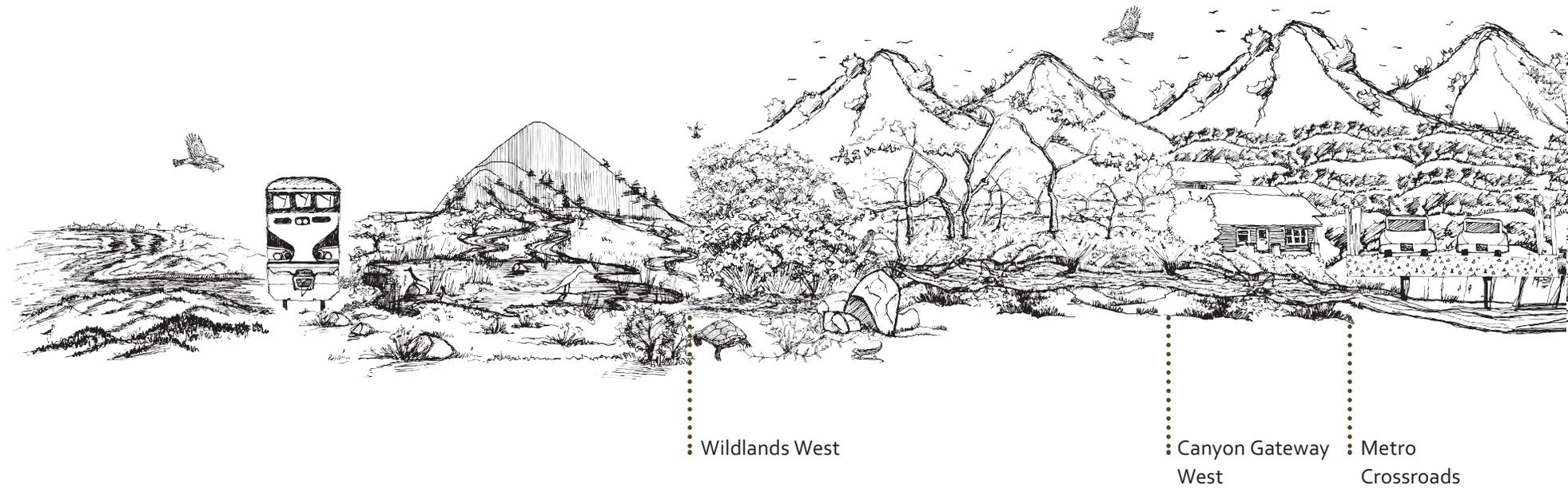
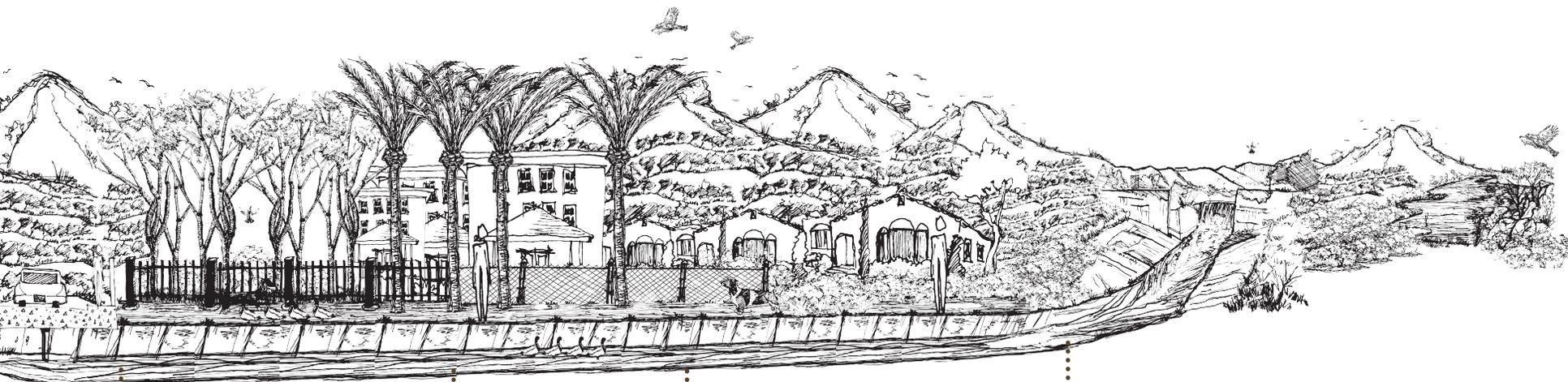


Figure 4.25 Section through Escondido Creek Watershed



Grand Downtown

Urban Central

Mountain Gateway

Wildlands East

Source: Escondido Creek Design Team



Site Selection Process

The design team approached the selection of design sites through a lengthy distillation process using both an analytical and intuitive approach. Both of these methods generated a list of sites; from this list the team selected the eight design sites for the vision plan. Following is a brief description of the selection process.

Analytic List of Design Site Possibilities

The design team reviewed the entire length of the creek trail as it transected the city, in order to generate a comprehensive list of possible design sites along the length of the creek. The design team critiqued each possible site along the creek based on its adjacency to intersections, the current use of the site, connections to existing landmarks or institutions, and the catalytic potential a site might have to propel change at other sites along the creek. From this discussion, the design team generated a list of 15 sites along the entire length of the creek to consider for design (see figure 4.26). A list of criteria by which to compare and measure the suitability of these sites was also developed. Then, applying these criteria to the complete list of sites, each site was given a point if it met one of the criteria. The scores were then tallied, and the sites ranked in descending order (see table 4.2 for analytic matrix).

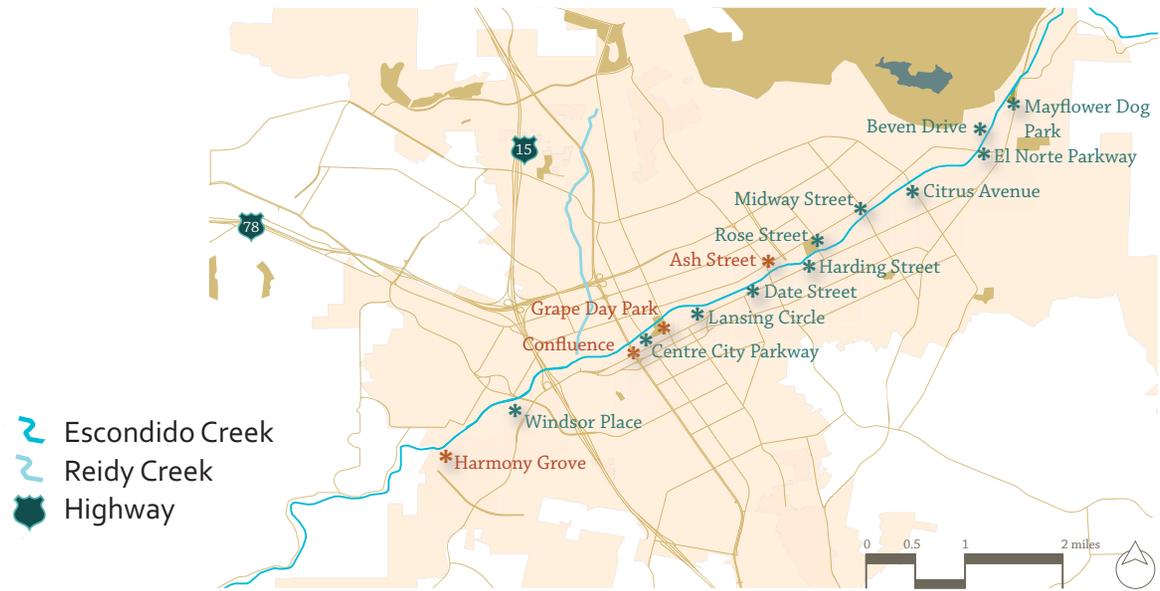


Figure 4.26 Design Site Location Map

Source: Escondido Creek Design Team

POSSIBLE SITES	CRITERIA										SCORE
	High Traffic	High Use	Connections	Landuse/Diversity	Population Density	Existing Portal	Future Development	Existing Conditions	Immediate Need	Unique to Character Area	
Ash Street											9
Grape Day Park											8
Hickory/Lansing Circle											7
Rose Street											7
Confluence (Transit Center)											6
Citrus Avenue											5
Harmony Grove											5
Harding Street											5
Midway Street											5
El Norte Parkway											5
Mayflower Dog Park											5
Windsor Place											4
Centre City Parkway											4
Date Street											4
Beven Drive											3

Table 4.2 Analytic Matrix of Sites

Site Selection Process



Intuitive List of Design Site Possibilities

The design team felt that the process of selecting sites would be enhanced through the inclusion of a more intuitive site selection method. This intuitive method, by nature, would preclude the use of criteria or devices by which to measure the sites and rely on the team's understanding of the creek trail. Because it was a less prescribed method of site selection which relied on knowledge of all possible sites, it was the more challenging of the two methods to use. Using intuition, each member of the design team created their own list of sites they felt should be included in the vision plan. Interestingly, a few sites that had not been included in the original analysis were illuminated in the process—two of these sites were included in the design of the final vision plan.

Source: Escondido Creek Design Team

Figure 4.27 Team Members Conducting Intuitive Analysis

Site Selection Process

Compiling Both Approaches

From the two lists of possible sites generated by both methods, the design team selected eight sites to design. The design team tallied the total scores for each possible site on the analytic list. The design team then took sites on the intuitive list and ranked them according to the criteria used in the analytic process. With this new distillation of sites, the design team selected the sites from this last list based upon the uniqueness of a site's typology. Eight total sites were selected, each with a distinct typology fitting into two categories: streetscapes (table 4.3) and destinations (table 4.4). Figure 4.28 illustrates the selected sites.

It is important to note, the sites selected for design by the team are sites the team deemed would best illustrate the vision at this stage in the process. The other sites that were considered, but not chosen, may be sites to integrate into the fulfillment of the vision as the process of revitalization in the City of Escondido progresses.

Creekwalk Streetscapes

Location
Citrus Avenue
Date Street
Lansing Circle
Windsor Place

Table 4.3 Creekwalk Streetscapes

Creekwalk Destinations

Location
Ash Street (Urban Wild)
Civic Center (The Creekfront)
Transit Center (The Creekcross)
Harmony Grove (Willow Walk)

Table 4.4 Creekwalk Destinations

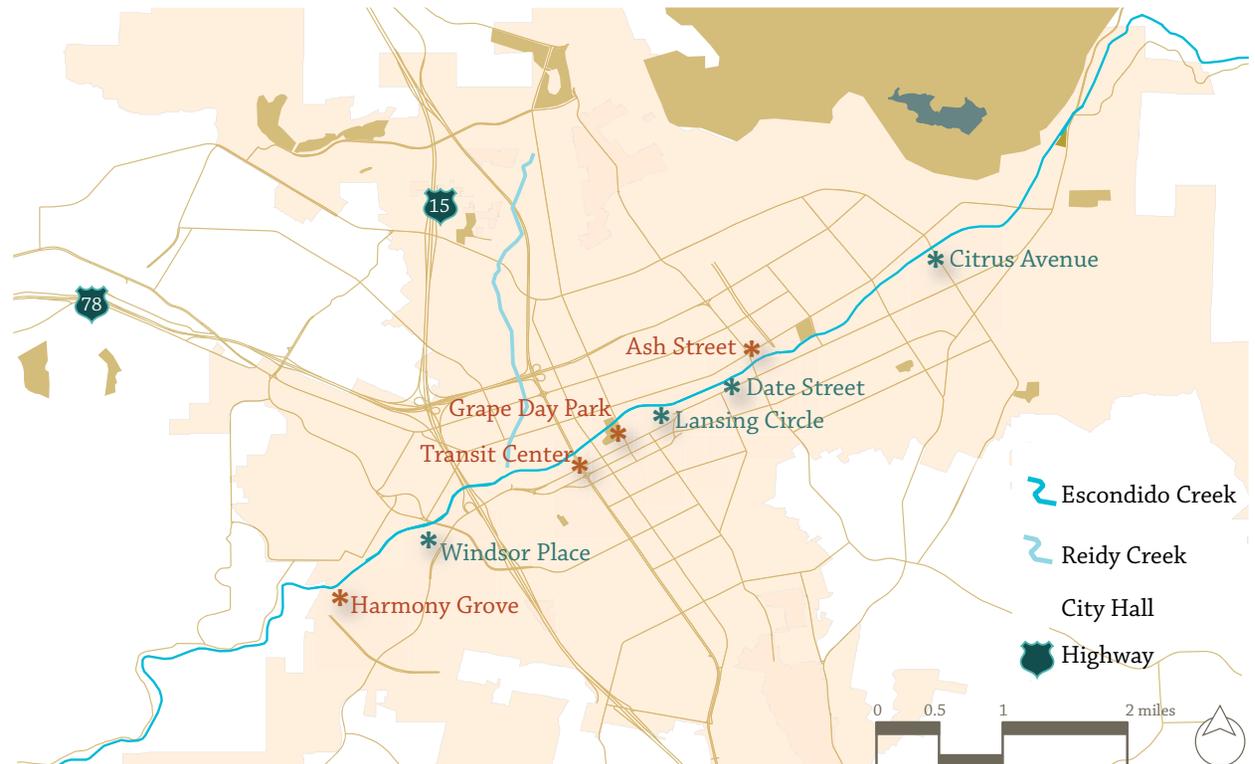


Figure 4.28 Design Site Location Map

Source: Escondido Creek Design Team

Site Selection Process



Figure 4.29 Field Visit Informing the Site Selection Process

Source: Escondido Creek Design Team

Section 5

DESIGN RESPONSE



Overview & Vision Statement

The vision for the Escondido Creek and Trail is to create a linear Creekwalk park providing opportunities for the community to engage with the Escondido Creek in both its urban and wild typologies via safe trails connecting to creek oriented destinations.

The Creekwalk proposes a network of parks and features oriented along, and linked together by, the existing trail infrastructure along the Escondido Creek. The Creekwalk will build upon the existing trail infrastructure, to create a network of destinations, features and facilities, providing

an alternative to motorized transportation to the community, and revitalizing the city

Figure 5.2 is a map of the City of Escondido illustrating the plan for the Creekwalk. The solid gold lines on the plan represent the existing trail. As the plan illustrates, the existing trail switches sides of the channel, orienting along the south bank of the channel on the eastern side of the city, to the north bank in the center of the city, and returning to the south bank on the western side of the city. The Creekwalk proposes increasing connectivity by continuing the trail along both sides of the

channel within the higher density urban core of the city. The dashed gold lines on the plan illustrate the proposed trail extensions. In addition, the Creekwalk proposes to extend the Escondido Creek Trail east to Lake Wohlford and west to the coast.

The Creekwalk is composed of two categories of eight sites, four Streetscapes and four Destinations. The location of the four Destination sites are marked by the fuchsia shapes and the four Streetscapes are marked by the purple asterisks. The following pages in this section provide the design concepts for the Creekwalk.



Figure 5.1 View of Lake Wohlford

Source: Escondido Creek Design Team

Overview & Vision Statement

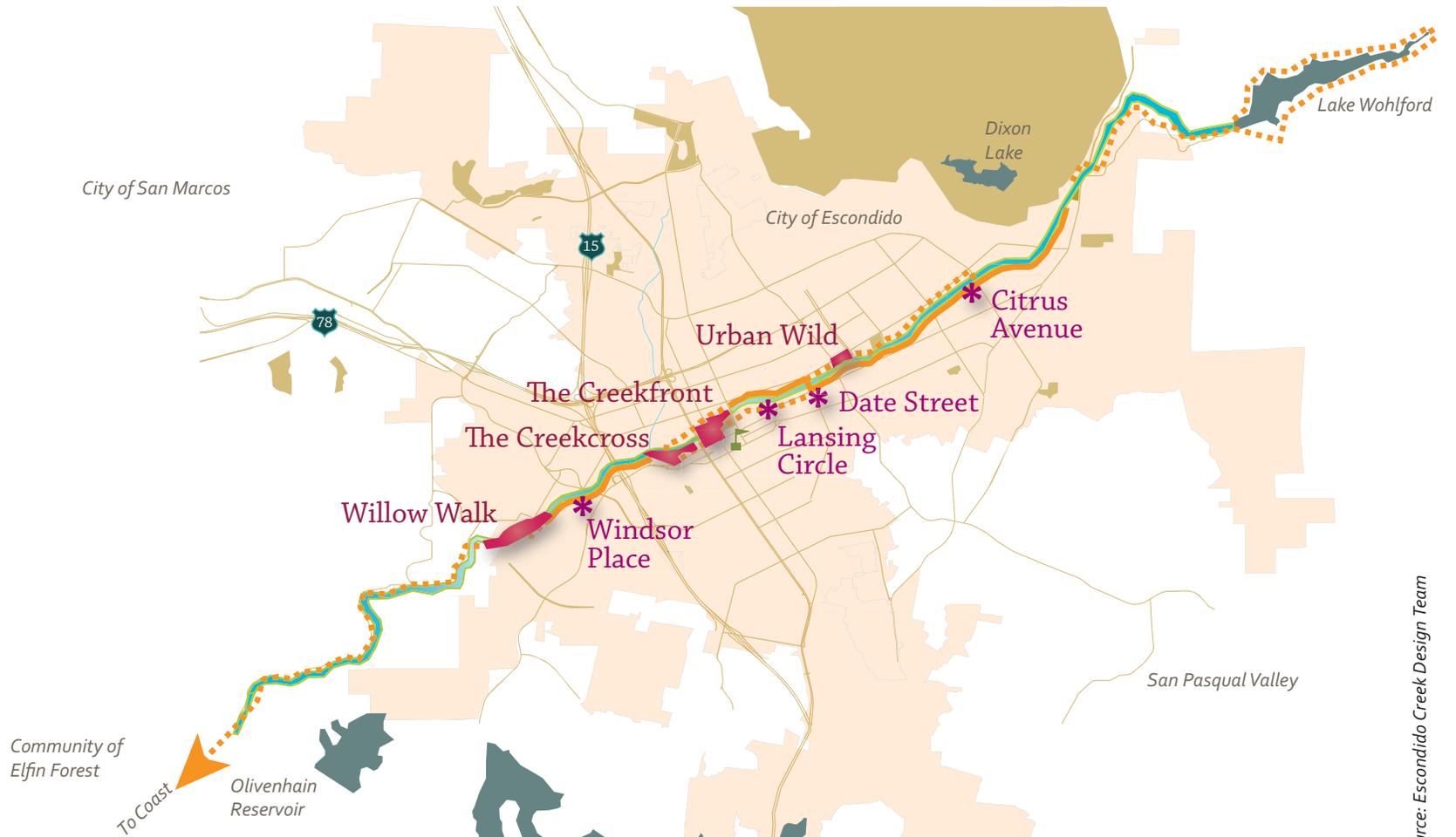


Figure 5.2 The Creekwalk Plan

- Escondido Creekwalk
- Escondido Creek Trail (Existing)
- Proposed Creek Trail Extensions
- Creekwalk Destinations
- Creekwalk Streetscapes
- Parks (Existing)
- City of Escondido
- City Hall
- Highway



Source: Escondido Creek Design Team

Regional Connectivity

The Escondido Creekwalk is envisioned as a seamless connection from east to west and is designed to interface with the existing extensive regional trail infrastructure. Over the past decade, the North San Diego County inland area has expanded the trail network creating a web of connections. These trails were built and are maintained by a myriad of municipalities and agencies but provide public access for all of the region's residents. By viewing these existing trails as one integrated network, the Escondido Creek Trail can link into this network and greatly expand non-motorized access in the North County area.

Cities linked by this trail network include Escondido, San Marcos, and San Diego by way of the Rancho Bernardo community; the areas of San Pasqual Valley, Hidden Meadows, and Elfin Forest; and the Coastal communities west of Escondido. The Escondido Creek Trail facilitates the flow of Escondido residents across the city and beyond to other cities, while also helping to transport visitors into the city and onto Escondido Creekwalk.

In addition to the series of existing trails, existing roadways have been identified as possible routes expanding connection to areas underserved by

regional trails. Expansion of the Escondido Creek Trail east to Lake Wohlford and west to Elfin Forest Recreational Reserve, figure 5.4, greatly expands the service area. These expansions can link to existing trails and help service areas currently disconnected from the larger trail network. Figure 5.4 illustrates proposed Escondido Creek Trail expansions and existing trails and roadways that serve as connections between the Escondido Creekwalk and the existing regional trail network system.



Figure 5.3 Elfin Forest Recreational Reserve

Source: Escondido Creek Design Team

Regional Connectivity

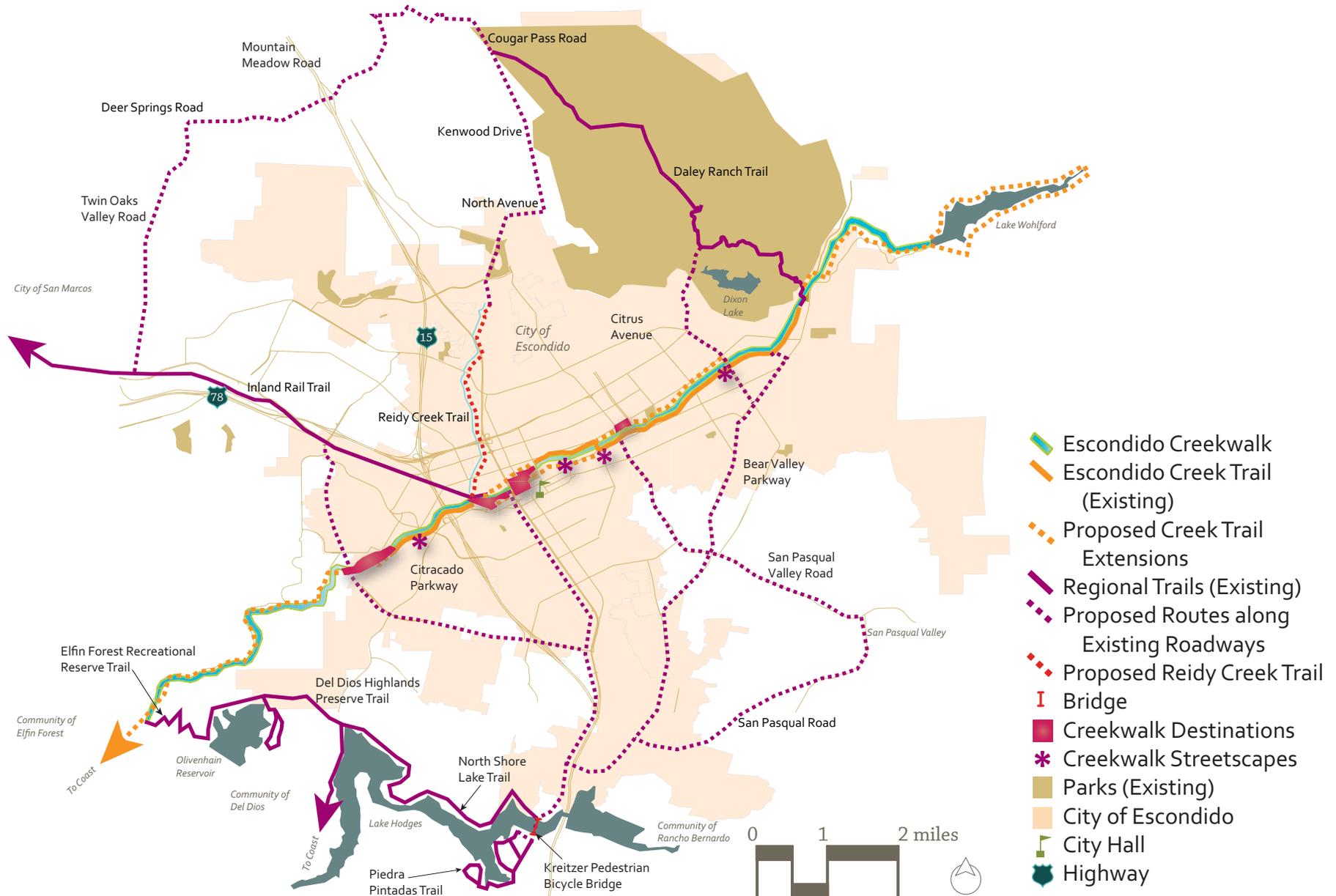


Figure 5.4 Regional Connectivity Map

Source: Escondido Creek Design Team

The Creekwalk

The design team selected eight sites along the Escondido Creek within the city boundaries to illustrate how the vision for the Escondido Creekwalk may unfold (see figure 5.5). Distinctions between size and scope of the eight sites were made by categorizing the smaller, more near-term vision sites as Creekwalk Streetscapes and the larger, longer-term vision sites as Creekwalk Destinations.

Creekwalk Streetscapes: Initiating Change

Creekwalk Streetscapes are sites adjacent to the creek that are relatively small in scale—roughly ½ acre or less. These sites require minor modifications to existing conditions and minimal investment of time and/or financial resources. Change at Creekwalk Streetscapes can begin immediately.

Creekwalk Streetscape sites are envisioned to serve as “catalytic nodes”—locations in which a little energy and change can initiate a ripple effect transforming the Escondido Creek Trail and the community’s perception of the creek corridor. Small efforts will demonstrate interest in the creek and trail generating confidence in the larger possibility of implementing the Creekwalk vision.

Creekwalk Streetscapes

Location	Typology
Citrus Avenue	Intersection
Date Street	Pedestrian Bridge
Lansing Circle	Right of Way
Windsor Place	Cul-del-Sac

Table 5.1 Creekwalk Streetscape Typologies

Creekwalk Destinations: The Long View

Creekwalk Destinations are larger, multi-acre sites adjacent to the Escondido Creek with long-term goals for each site to be a comprehensive destination. These visions entail site improvements including structural and architectural enhancements and wide-ranging programming. Change at Creekwalk Destinations can begin immediately; however, the complete implementation of the Creekwalk Destinations vision will require more resources to be fully realized.

Creekwalk Destinations propose the long-term goal of bringing the Escondido Creek Trail to the forefront of a revitalized landscape. These destinations will help the creek emerge from the shadows to be showcased at the center of an invigorated City of Escondido.

Creekwalk Typologies

As discussed previously, the number of possible sites that could have been included in this vision plan was extensive. To provide a more flexible and comprehensive vision plan, the design team determined it useful to choose sites based upon the

site classification, or typology. Each site typology represents a site classification found elsewhere within the City of Escondido along the creek. The site typologies can be considered templates presenting design solutions that may be applicable at sites of the same typology along the creek corridor.

Eight distinct site typologies were selected in total; four for Streetscape sites and four for Destination sites, table 5.1 and 5.2. The four Streetscape typologies selected for design by the team are: an intersection, a pedestrian bridge, a channel right of way, and a cul-de-sac. The four Destination typologies selected are: an urban site, a central district, an industrial crossroads, and a wild landscape.

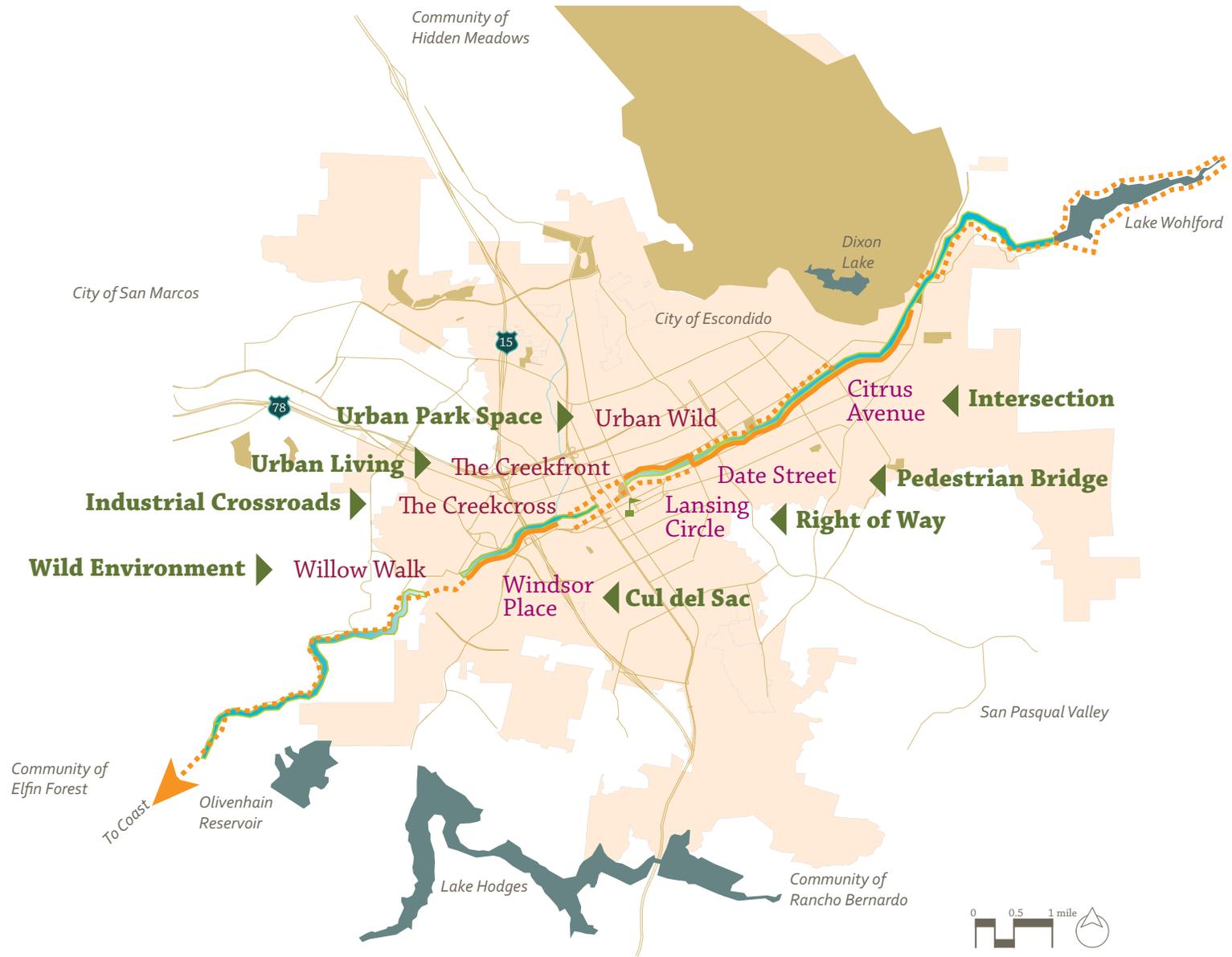
By choosing sites from the eight typologies, each of the design sites will provide examples of solutions that may be applied to another area of the same typology. For example, design solutions presented for the intersection typology at Citrus Avenue may be applicable to the intersection of Juniper Street and the creek. Another example may be that solutions posed for the wild landscape at Harmony Grove could provide design solutions for the wild landscape east of the intersection of Valley Center Road and the creek.

Creekwalk Destinations

Location	Typology
Ash Street (Urban Wild)	Urban Park
Civic Center (The Creekfront)	Mixed Use
Transit Center (The Creekcross)	Industrial Crossroads
Harmony Grove (Willow Walk)	Wild Landscape

Table 5.2 Creekwalk Destination Typologies

The Creekwalk



Source: Escondido Creek Design Team

Figure 5.5 Typology Location Map

Creekwalk Focused Opportunities

Just as the eight design sites represent specific typologies, each site also focuses on a unique opportunity. These focused opportunities address specific issues and/or opportunities inherent to each of the eight sites. The purpose of distinguishing focused opportunities in the design response is to present an array of design ideas demonstrating how several solutions may work in concert to meet a specific issue. These proposed solutions may then be taken and applied to other sites; design ideas presented to address one focused opportunity at a site within the vision plan may have applicability to design challenges encountered at another site along the creek. In this manner, the vision plan provides flexibility to its implementation.

Eight focused opportunities were identified in total; four for Streetscape sites and four for Destination sites, table 5.3 & 5.4. The four Streetscape focused opportunities are: safety, site programming, public/private partnerships, and access. The four Destination

focused opportunities are: environmental awareness, connection, run-off mitigation, and habitat preservation. Figure 5.6 illustrates the location of the eight sites and the focused opportunity at each site.

It is important to note opportunities abound at every site—although each site has a specific opportunity as the focus of the design response, no site is limited to a single opportunity. Also, each of the eight focused opportunities may have applicability at locations beyond the sites as illustrated in the vision plan. For example, the focused opportunity at Lansing Circle is public/private partnership; however, it may be helpful to develop public/private partnerships at Windsor Place or The Creekfront District. By using focused opportunities as a design tool, the design team was able to showcase how the site may address specific needs, issues, or opportunities encountered elsewhere along the Escondido Creek.

Creekwalk Streetscapes

<i>Location</i>	<i>Focused Opportunities</i>
<i>Citrus Avenue</i>	<i>Safety</i>
<i>Date Street</i>	<i>Programming</i>
<i>Lansing Circle</i>	<i>Public Private Partnership</i>
<i>Windsor Place</i>	<i>Access</i>

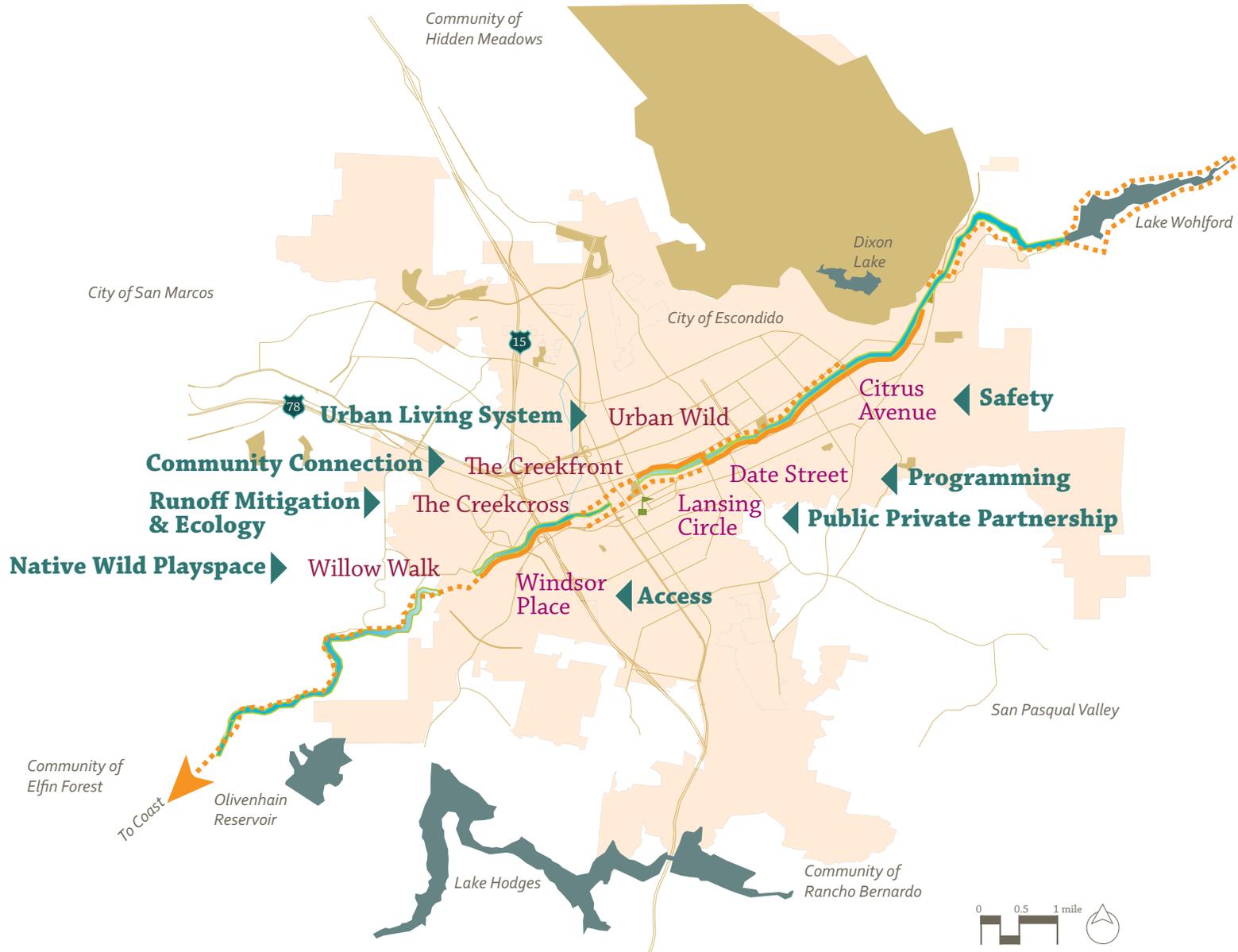
Table 5.3 Creekwalk Streetscape Focused Opportunities

Creekwalk Destinations

<i>Location</i>	<i>Focused Opportunities</i>
<i>Ash Street (Urban Wild)</i>	<i>Urban Living Systems</i>
<i>Civic Center (The Creekfront)</i>	<i>Community Connections</i>
<i>Transit Center (The Creekcross)</i>	<i>Runoff Mitigation & Ecology</i>
<i>Harmony Grove (Willow Walk)</i>	<i>Native Wild Playspace</i>

Table 5.4 Creekwalk Destination Focused Opportunities

Creekwalk Focused Opportunities



Source: Escondido Creek Design Team

Figure 5.6 Focused Opportunity Location Map

Creekwalk Framework

The design framework was developed to provide a structure for fulfilling the goals and objectives established at the outset of the project. The framework is comprised of three elements: Bridge, Collect, and Discover. The maps on these pages illustrate the location in which components of the framework are to be implemented over the length of the Creekwalk. The following provides an overview of the three framework elements.

Bridge design elements represent design solutions addressing connections. These design responses may be literal as in the case of a pedestrian bridge or point of access, or figurative, as in the case of particular site materials helping illustrate the connection between a design site and the local mountains. Figure 5.9 illustrates the location of these elements over the length of the Creekwalk.



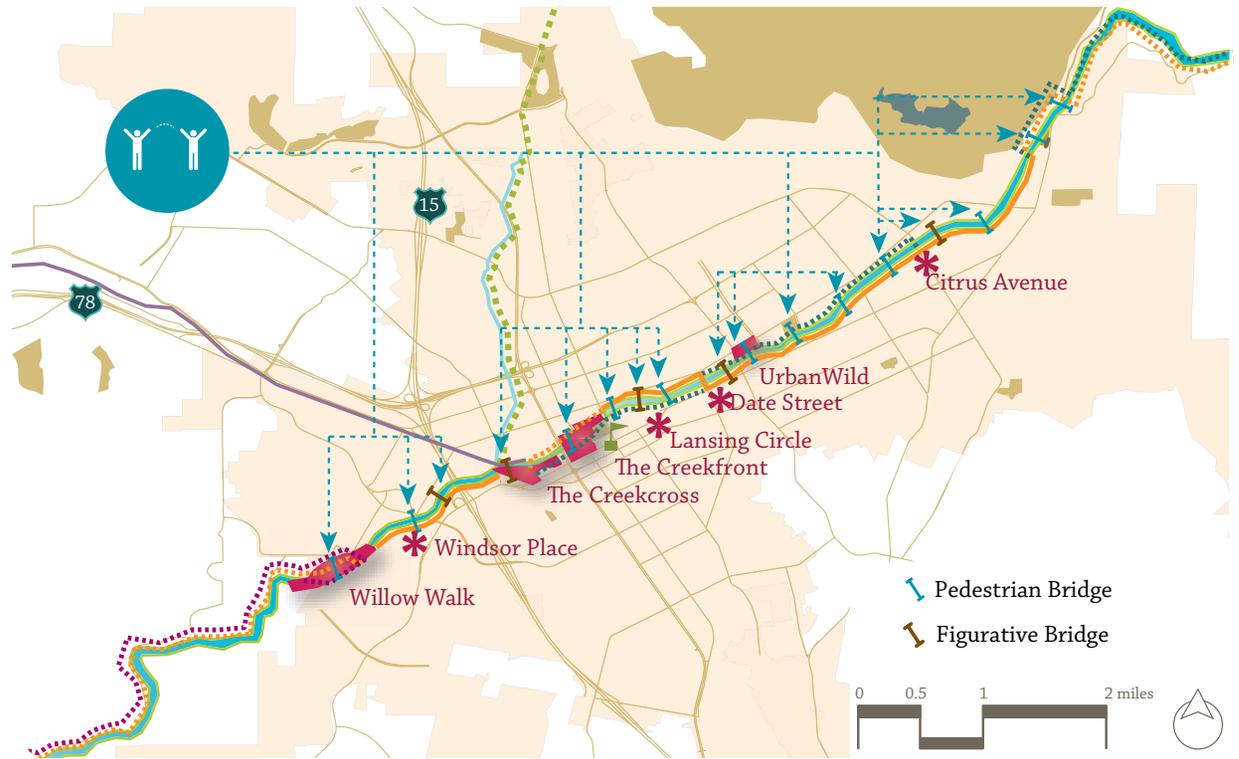
Source: Escondido Creek Design Team

Figure 5.7 Example of Local Stone
Using local stone elements in the site's design is an example of a figurative bridge. This stone is found in the Lake Wohlford area.



Source: Escondido Creek Design Team

Figure 5.8 Example of a Swale
Swales designed to collect and filter stormwater flowing across a site are an example of Collect elements. The swale in this photo filters water before it enters the Guadalupe River in San Jose, California.



Source: Escondido Creek Design Team

Figure 5.9 Bridge Location Map

Creekwalk Framework



Source: Escondido Creek Design Team

Figure 5.10 Example of Interpretive Signage
Interpretive signage is an example of a Discover element. This signage is at Guadalupe River Park in San Jose, California.

Collect design elements address the gathering of people and/or resources. Examples of Collect design elements may be a seat wall that provides a space for residents to meet each other or a retention basin which gathers stormwater run-off. Figure 5.11 illustrates the location these elements over the length of the Creekwalk.

Discover design elements represent programming options and community or creek awareness features. An example of Discover design solutions may be signage identifying the Escondido Creek or educational programming elements such as nature hikes for school children. Figure 5.12 illustrates the location these elements over the length of the Creekwalk.

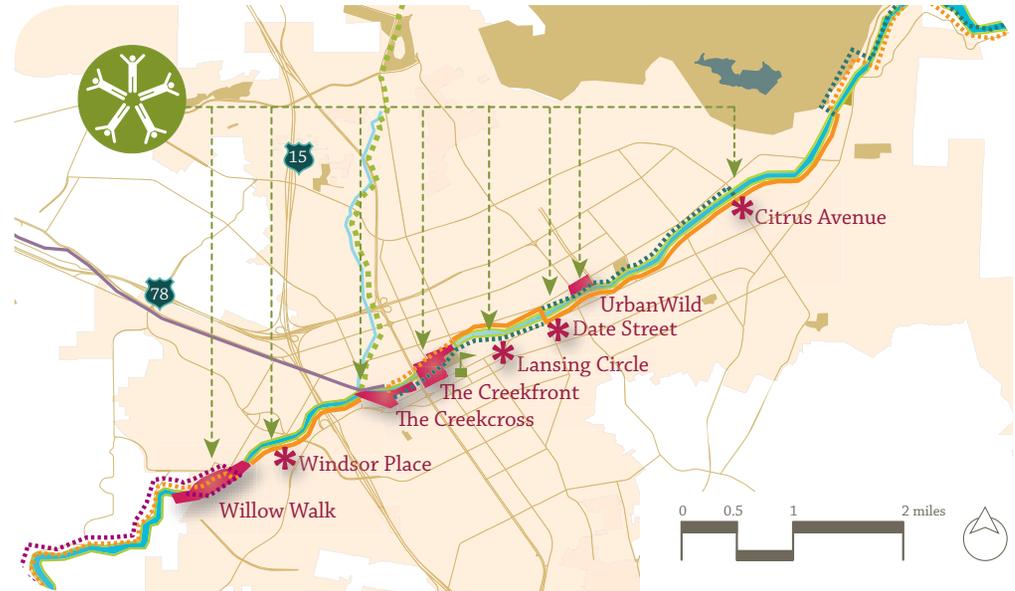


Figure 5.11 Collect Location Map

Source: Escondido Creek Design Team

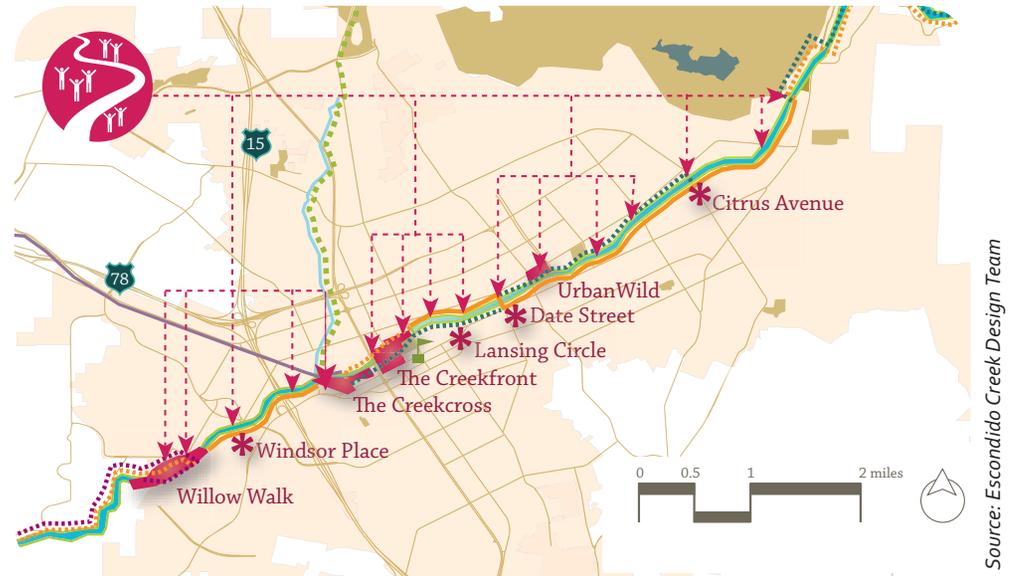


Figure 5.12 Discover Location Map

Source: Escondido Creek Design Team

Creekwalk Streetscape: Citrus Avenue

Existing Conditions

Citrus Avenue is a representative example of a creek and street intersection located in a residential neighborhood of mostly single family homes (see figure 5.13). Citrus Avenue is a two-lane street with a center turn-lane through a residential neighborhood in the eastern end of the city. The neighborhood is

home to a number of elementary and middle schools and is a short walk to an expansive commercial district.

Site Opportunities

Citrus Avenue is an excellent opportunity for the City of Escondido to begin to take the first steps in

creating a safer and more user friendly creek trail. The proximity of many nearby schools as well as the short walk to a shopping district suggest that the creek trail could function as a valuable resource in the community as a conduit for school children, and people travelling to and from the downtown area.

As with much of the creek trail, the Citrus Avenue intersection has some of the foundational amenities for pedestrians and cyclists, but is lacking in many of the most basic safety elements typically found at high volume pedestrian intersections. Because the creek trail is used on a regular basis by nearby residents, the inclusion of simple safety and traffic calming measures poses an opportunity to make an immediate difference to users of the creek trail.

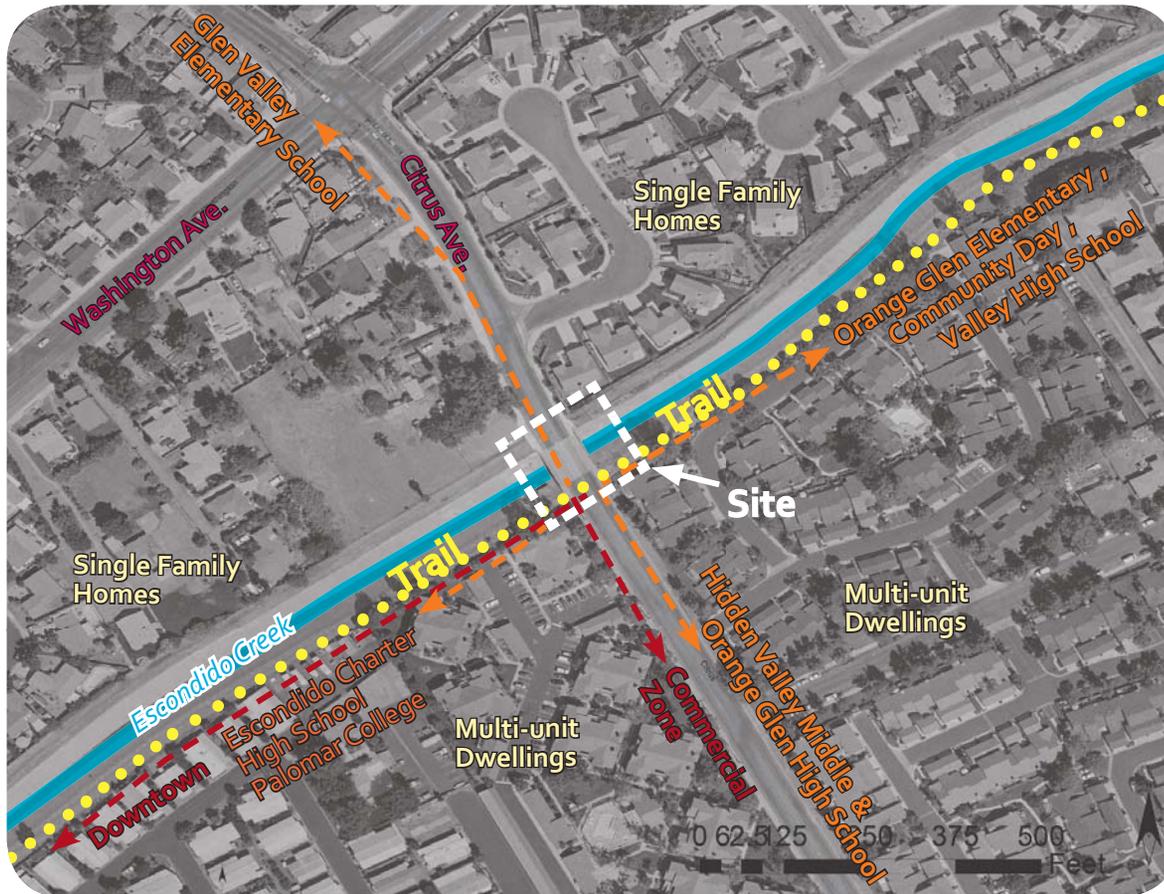


Figure 5.13 Citrus Avenue Location Map



Figure 5.14 Bike Trail Fence

Creekwalk Streetscape: Citrus Avenue



Source: Escondido Creek Design Team

Figure 5.15 Community Garden at Citrus Avenue

Citrus Avenue is a corridor for people travelling across the city and it presents an opportunity for the city to begin to create a network of bicycle lanes which integrate with the creek trail, providing connections to the neighborhoods and the existing Escondido Creek Trail.

Site Constraints

The Citrus Avenue intersection is typical for the City of Escondido in that it has no outward indication that users of the creek trail are traveling along the Escondido Creek and opportunities for community building or neighborhood interaction are few. As with much of the creek trail, the Citrus Avenue intersection has some of the foundational amenities for pedestrians and cyclists, but is lacking in many of the most basic safety elements typically found at high volume pedestrian intersections. For example, there



Source: Escondido Creek Design Team

Figure 5.16 Existing Conditions at Citrus Avenue

Creekwalk Streetscape: Citrus Avenue



Source: Escondido Creek Design Team

Figure 5.17 Existing Conditions at Citrus Avenue

are municipal garbage cans and curb cuts, but there are no crosswalks, no indication to motorists that pedestrians or cyclists may be crossing, no bicycle lanes along Citrus Avenue, and no indication to approaching cyclists or pedestrians that cross traffic does not yield (figure 5.16).

Site Typology

Citrus Avenue represents a typical intersection between the creek trail, single family neighborhoods and a residential traffic artery. Design responses proposed for this site may be appropriate for the other 18 intersection sites along the Escondido Creek, within the city limits.

Focused Opportunity

The intersection of the creek trail and Citrus Avenue represents an opportunity to highlight the need for an increased awareness of the safety at intersections within the city. The presence of a large number of children traveling from the neighborhoods to schools, the proximity of the shopping districts and the potential for the creek trail to serve as a conduit between neighborhoods



Source: Escondido Creek Design Team

Figure 5.18 Design Implementation at Citrus Avenue

presents an opportunity for relatively inexpensive and easily implemented improvements.

Goal

The goal of the Citrus Avenue site is to articulate simple, cost effective methods to create more user friendly and safer intersections of the creek trail with the intersecting streets. Design solutions for Citrus

Avenue are translatable across a broad swath of the city—at nearly every site a street intersects with the Escondido Creek and Trail.

Design Response

The neighborhoods around Citrus Avenue are within a short walk of a broad array of community resources, including schools, churches, shopping centers and parks. The neighborhoods around Citrus Avenue are also a mix of single family homes and condominiums.

Creekwalk Streetscape: Citrus Avenue

Safety

The safety design elements include crosswalks painted across raised pedestrian tables. These raised tables are essentially widened speed bumps with crosswalks painted on them.

Raised pedestrian crosswalks serve to draw increased attention to the pedestrian crossing by extending the creek trail across the road and raising pedestrians up to the level of an oncoming driver's field of vision (see figure 5.21). This raised pathway allows pedestrians and cyclists to cross at a more constant grade, minimizing the need for curb cuts. Raised pedestrian crossings also act as traffic calming devices by causing drivers to slow for the crosswalk. However, raised crosswalks may not be appropriate for high volume collector streets due to the potential increase in emergency vehicle response times.

Bicycle lanes along roadways intersecting the creek trail can provide a safe and comfortable route for cross-creek bicycle traffic. Striped bicycle lanes give automobile traffic a positive cue about sharing the roadway with bicycles. Traffic speeds at intersecting roadways are safe enough to include bicycle traffic and may ultimately help to offset the amount of traffic by providing safe routes for cyclists.

Pedestrian and cyclist rumble strips or other forms of detectable warning devices at the curb cut or street entrance provide a visual and tactile warning that a street crossing is imminent. These devices not only accommodate pedestrians with visual impairments, but can help children recognize and react to the presence of a changing traffic pattern and oncoming cross traffic. Many different forms of these devices exist to accommodate a variety of construction scenarios.

Pedestrian activated yield lights installed at intersections of the creek trail are helpful in alerting drivers to the existence of cyclist and pedestrian cross traffic as well as providing systemic awareness of the existence of a crosswalk. Pedestrian activated lights ensure that lights do not flash continuously which would reduce their effectiveness when pedestrians are present. In combination with crosswalks and raised pedestrian platforms, yield lights can be an effective means of alerting drivers to the presence of pedestrians on the creek trail. Improved night time lighting is essential for a perception of safety for both cyclists and pedestrians along the trail, see figure 5.29.



Figure 5.19 Proposed Trail Lighting at Citrus Avenue

Source: Escondido Creek Design Team

Creekwalk Streetscape: Citrus Avenue



Source: Escondido Creek Design Team

Figure 5.20 Existing Conditions at Citrus Avenue

Solutions proposed for the site at Citrus Avenue are easily transferred to a number of sites throughout the city.

Benefits

The benefits of implementing design solutions presented here include improving public safety for both pedestrians and cyclists traveling not only parallel to the Escondido Creek on the creek trail, but for cyclists using the bike lanes along Citrus Avenue. This increase in public safety can lead to increased comfort and usability of the existing creek trail, thereby escalating the likelihood of increasing the use of the trail by the residents of the surrounding neighborhoods. Encouraging the use of the trail by the community will increase the community's awareness of the creek as both a natural and cultural resource, and can also lead to an increase in community identity and engagement in choosing alternative modes of travel.



Source: Escondido Creek Design Team

Figure 5.21 Design Implementation at Citrus Avenue

Implementation Strategy

Citrus Avenue is an excellent example of a site in which a series of small steps can be taken over a period of time to make a substantial cumulative impact. Initial investments in city infrastructure and improvements to the site can include small elements such as painting crosswalks or providing bike lane striping (see figure 5.18 and 5.21). Later, larger scale improvements can include elements such as pedestrian activated

traffic lights, police call boxes, improved lighting, pedestrian crossing tables, or the replacement of the existing chain link fence with more aesthetically pleasing fencing options. These steps may be taken over the course of many months or years and can be implemented as political will and financial resources become available.

Creekwalk Streetscape: Citrus Avenue

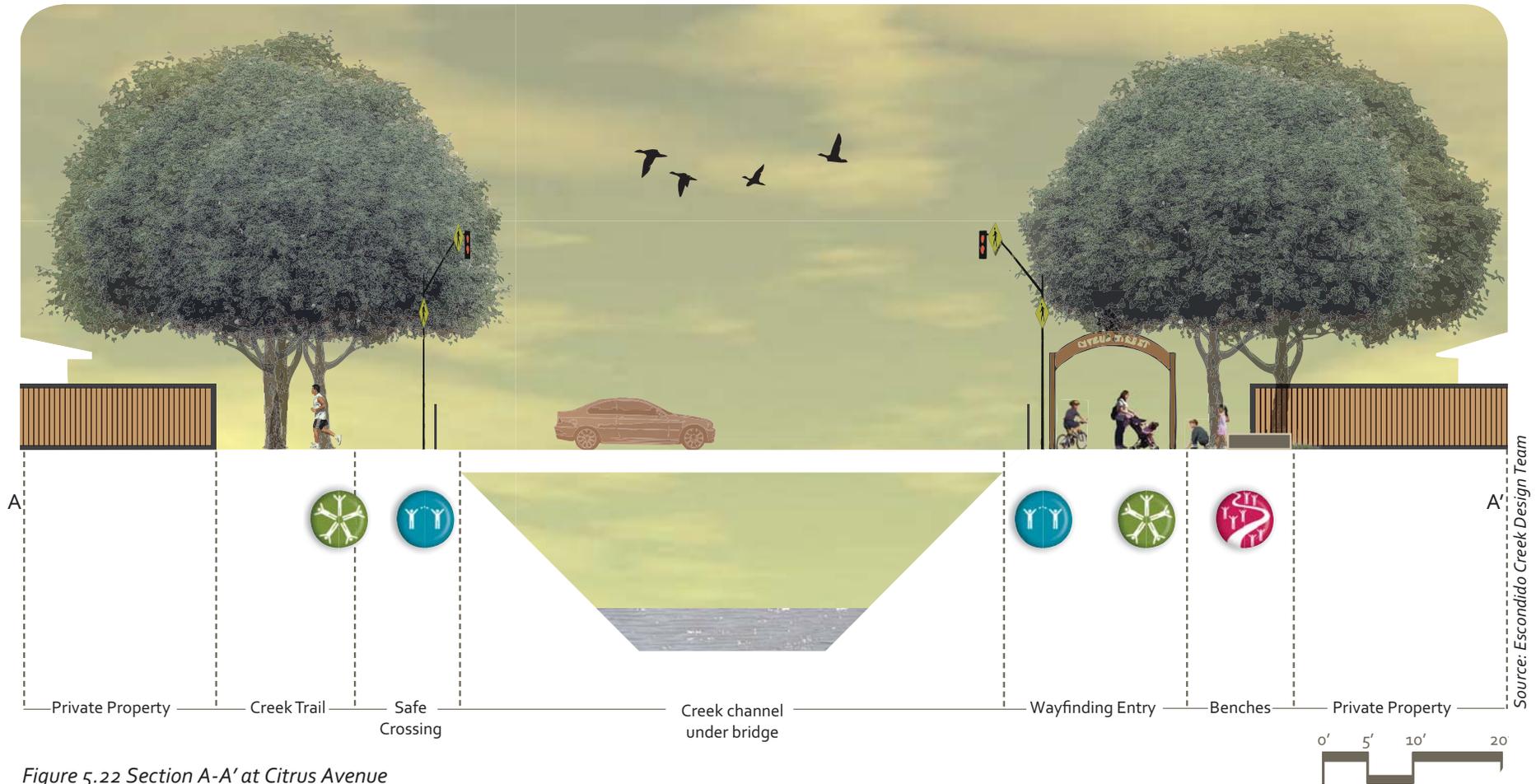


Figure 5.22 Section A-A' at Citrus Avenue



BRIDGE

The site *Bridges* by integrating cyclist and pedestrian oriented amenities into the intersection, providing safer crossing for residents and trail users.



COLLECT

The site *Collects* by providing amenities such as benches and shade trees to provide trail users with a pleasant and viable route through their community.



DISCOVER

The site *Discovers* by providing signage marking the trail and creek, creating awareness for passers-by of the creek and trail amenity.

Creekwalk Streetscape: Date Street

Existing Conditions

Date Street is located in the center of the city in the bustling Mission Park district. The north-south oriented street runs perpendicular to the Escondido Creek, flanking each side of the stream with a cul-de-sac and a pedestrian bridge that unites the two cul-de-sacs (see figure 5.23). Automotive traffic is prevented from crossing, but pedestrians and cyclists

can move freely across the creek corridor creating an excellent example of pedestrian priorities triumphing over the automobile.

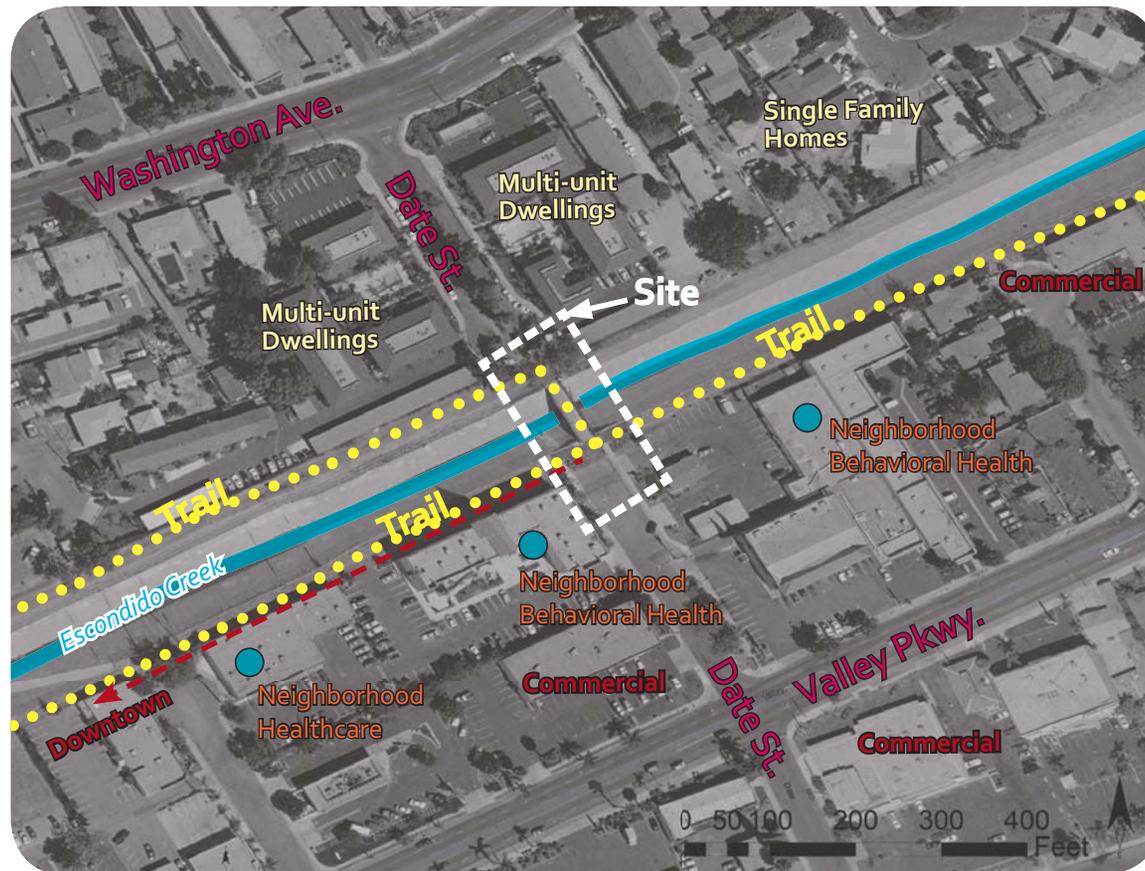
The bridge at Date Street (figure 5.24) sees heavy use by cyclists and pedestrians throughout the day. Users tend to be local residents taking advantage of the easy connection between the nearby retail, employment, social public service agencies and

adjacent residential areas. The bridge functions as a conduit for everyday activities, a confluence for trails converging from different directions and an easy community meeting spot.

Site Opportunities

The pedestrian bridge at Date Street represents a unique opportunity within the City of Escondido to take advantage of an existing neighborhood node. The bridge is in a diverse neighborhood with high pedestrian traffic and a level of existing infrastructure to support pedestrian circulation.

Throughout the city, along the course of the trail, only one side of the creek trail is typically authorized and maintained for use by the public. The one exception to this condition is the area immediately west of the Date Street bridge, where both sides of the creek trail are open to bicycle and foot traffic. This situation



Source: Escondido Creek Design Team



Source: Escondido Creek Design Team

Figure 5.23 Date Street Location Map

Figure 5.24 Date Street Bridge

Creekwalk Streetscape: Date Street



Source: Escondido Creek Design Team



Source: Escondido Creek Design Team

Figure 5.25 Date Street Bike Trail

Figure 5.26 Date Street Gate to Bike Trail

allows the greatest opportunity for use by the local community and could be replicated in many instances throughout the city.

Site Constraints

Aesthetically, the area around the bridge is unremarkable, with few trees and little vegetation. Aside from a small stand of palm trees on the south side and some larger eucalyptus, there is little intentional planting around the bridge. This provides an open overhead plane and affords uninterrupted views to the mountains in the distance, but conversely provides very little shade for trail users traveling along the creek during the day and provides no shade for the creek bottom. Entrances to the creek trail are from the adjacent neighborhood. Commercial areas are equipped with gates in

keeping with the city's policy of restricting use at night. Because the bridge sees so much traffic, the city has provided amenities such as garbage cans, lights and a drinking fountain, but these items have seen considerable wear. Challenges to this site will entail providing durable design solutions able to withstand a high volume of trail users.

Site Typology

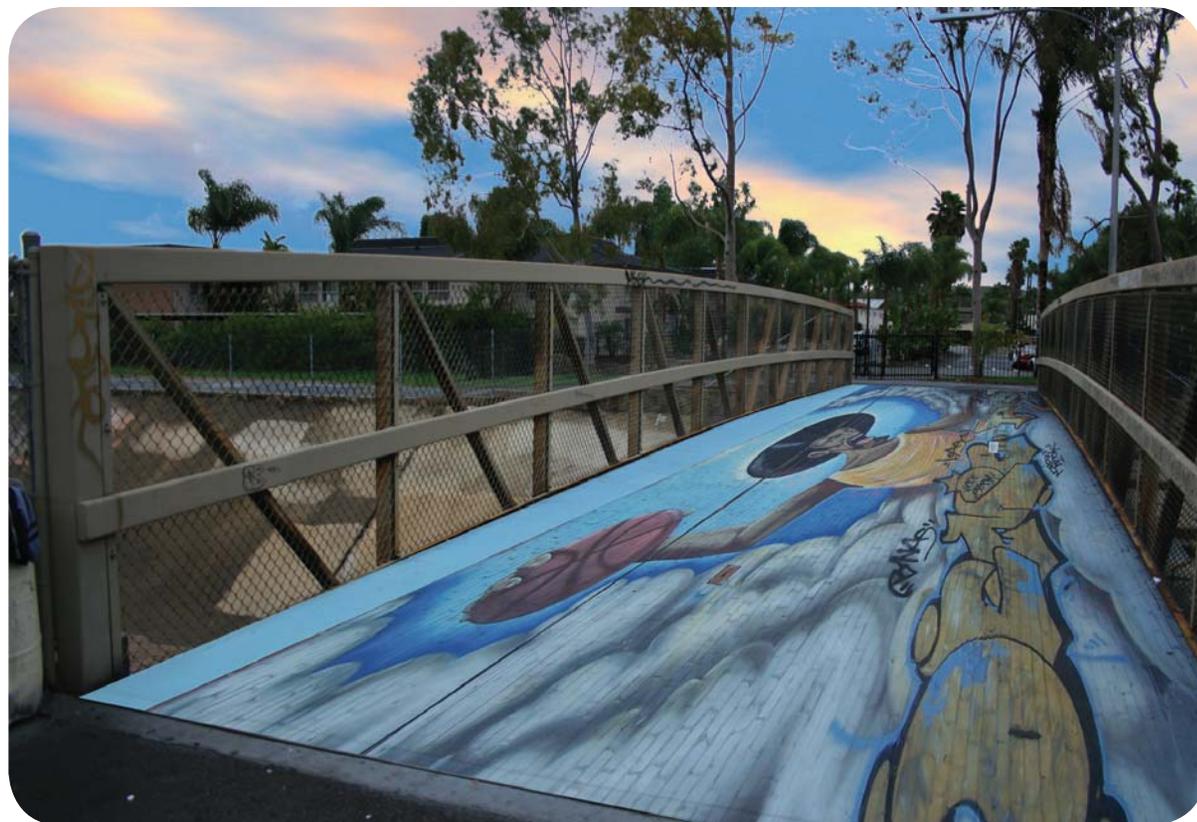
The pedestrian bridge at Date Street represents a unique and desirable condition within the City of Escondido. This potentially transferrable neighborhood node is flanked on one side by a residential neighborhood consisting of single and multi-family homes and bordered on the other by a commercial district which is home to

a broad range of retail businesses as well as local community public service agencies.

Focused Opportunity

Located between residential neighborhoods and an expansive commercial district, the bridge at Date Street represents an exceptional opportunity to implement community programming that engages local community groups and works in concert with the city. One such programming element could be a farmer's market. Closing the dead-end street to automobile traffic would allow the space to be used on a regular basis by community groups interested in hosting farmer's markets, concerts, or small street fairs.

Creekwalk Streetscape: Date Street



Source: Escondido Creek Design Team

Figure 5.27 Design Implementation at Date Street

Goal

The Date Street site represents a prime opportunity to take advantage of neighborhood use of the trail, the pedestrian bridge and the proximity of local businesses. The goal for design responses at this site is to highlight the many assets intrinsic to this site which will bolster neighborhood programming opportunities.

Design Response

The design for the Date Street site illustrates opportunities for community engagement, partnerships, beautification and programming. The heavy pedestrian use of the bridge is due to its location between residential neighborhoods and a commercial district. This makes the bridge a conduit for everyday activities and the area around the bridge is ideal for community events such as small concerts or a farmer's market (see figure 5.30). Implementing small scale programming options



Source: Escondido Creek Design Team

Figure 5.28 Existing Conditions at Date Street

would enable the city to foster the creation of neighborhood groups, engage with residents of the community and harness grass roots resources. City and neighborhood partnerships encourage dialog and create an atmosphere of cooperation and mutual trust in which both parties can work together to transform the Date Street site from a simple thoroughfare into an asset for the whole community. The development of the site into a community gathering space would also help encourage patronage of local businesses. The construction of simple amenities such as a small stage for community concerts and the inclusion of tables, benches, trees, and lighting would transform this area into a space used as a gathering place in addition to a thoroughfare.

Benefits

By developing the area around the Date Street bridges into a community gathering space, the city can begin to cultivate relationships with the residents and transform an aesthetically

Creekwalk Streetscape: Date Street



Source: Escondido Creek Design Team

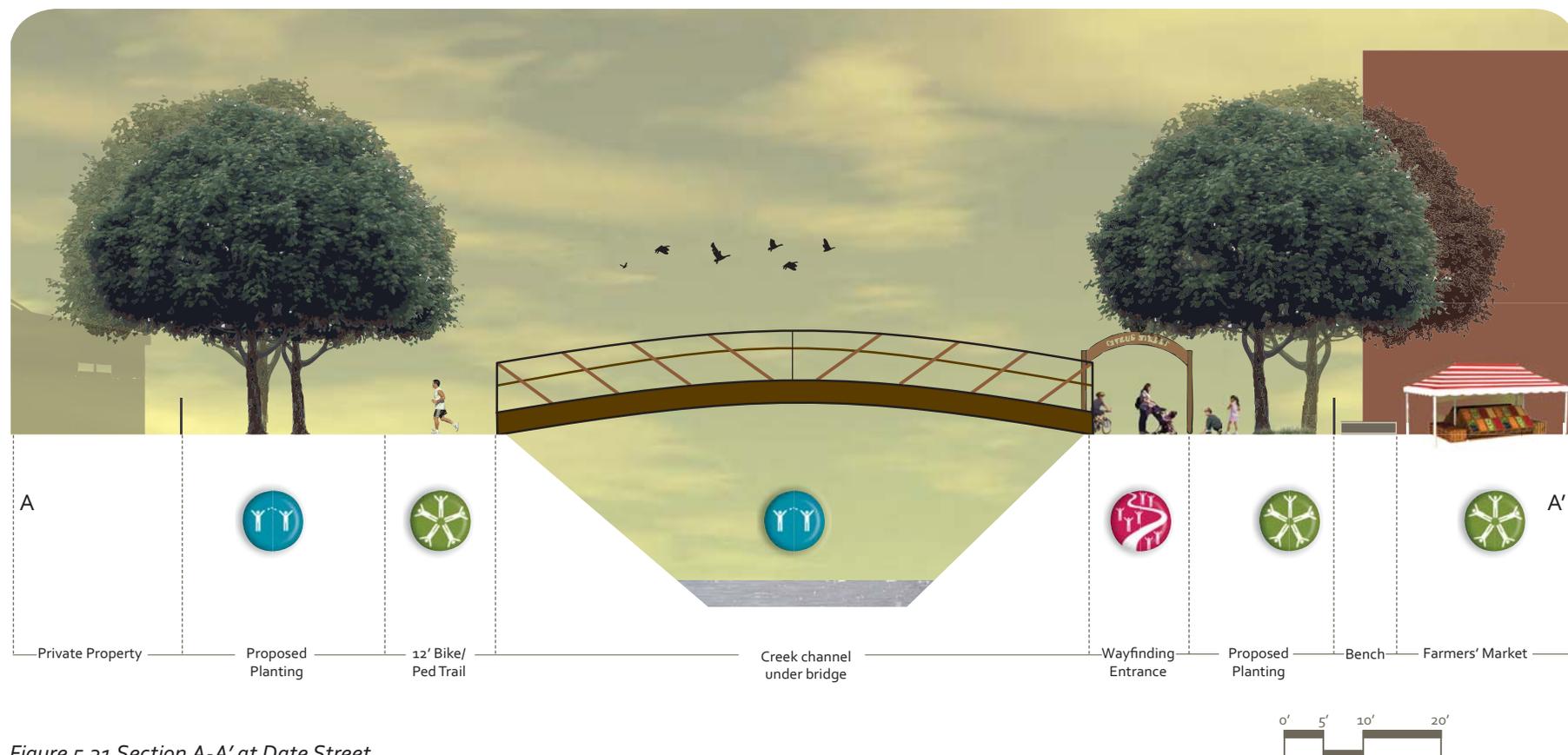
Figure 5.29 Existing Conditions at Date Street Bridge



Source: Escondido Creek Design Team

Figure 5.30 Design Implementation at Date Street Bridge

Creekwalk Streetscape: Date Street



BRIDGE

The site *Bridges* by connecting the neighborhood to local businesses and commercial opportunities. Metaphorically the bridge increases the opportunity for community interaction and an appreciation of the diverse cultural and social networks flourishing in Escondido.

COLLECT

The site *Collects* by providing community engagement in the form of concert series, weekly farmer's markets, or other community events creating a vibrant gathering area.

DISCOVER

The site *Discovers* by providing an opportunity for residents of the local neighborhoods to explore new ways of using the area immediately adjacent to the creek.

Creekwalk Streetscape: Date Street

unremarkable space. Increased community awareness and traffic could bolster local business and provide the community with a valuable sense of identity.

Implementation Strategy

Organizing interested residents of the area into community groups capable of making suggestions and decisions about appropriate and relevant events would provide the city with valuable input regarding use of the site. These groups could then function as scheduling and organizing committees in conjunction with the City of Escondido's Department of Community and Neighborhood Services to develop the programming for the site.

Developing the south side of the Date Street bridge area into a pedestrian plaza would relieve the city of the need to continually close and reopen the site for community events and would provide residents with a gathering space. The construction of a simple concrete slab could function as a bench, a meeting place or an impromptu stage for local musicians or artists. The removal of the chain link fence and gates would enable greater use of the space by large groups and the expansion of the programming to include the creek trail corridor. Finally, the installation of lights along the creek trail would increase the safety of the trail for people using it after evening concerts or other community events.

Programming

Neighborhood nodes, such as the Date Street bridge, present the City of Escondido with excellent opportunities to engage the residents in a number of events and community activities that would otherwise require more deliberately constructed spaces.

For Example:

Farmers markets: The development of a neighborhood scale farmer's market for the residents would foster the creation of local hubs which serve to provide quality, local food at fair prices. As opposed to be the main farmer's market hosted weekly on Grand Avenue, neighborhood scale markets would increase access to fresh fruits and vegetables. This scale of market can be a few vendors as opposed to a large scale multi-vendor market.

By encouraging the creation of a low overhead forum for local producers, farmer's markets enable farmers and sellers of not only produce, but other locally made goods. A farmer's market provides producers with a regular venue to generate consistent income without the interference of middlemen. A farmer's market also provides the community with an avenue to engage in dialog between consumer and producer and helps the community begin to know their farmers. Finally, farmer's markets will provide the community with an environmentally sustainable way to foster good eating habits and raise consciousness about food production.

Concerts: Programming a community concert series will help residents interact their neighbors, thereby helping build a more vibrant sense of community. A series of concerts would help foster an increased appreciation of music in a climate where arts funding is often at risk. Such a program would help neighborhood and regional talent by providing a venue and performance space. This venue could host a range of artists from mariachi bands to story tellers, from neighborhood garage bands to high school ensembles.

Community events: Possible community events include a neighborhood Cinco de Mayo celebration, Earth Day/environmental awareness fairs, neighborhood swap meets, church or school fundraising opportunities, or community service outreach events such as a "Friends of the Escondido Creek" information table.

All of these suggestions could be coordinated and staffed by community volunteers and require minimal city expenditures beyond helping to organize volunteer groups and providing the venue. These community/city partnerships could help instill a sense of community pride, neighborhood cohesiveness and ownership in the residents of Escondido neighborhoods.

Creekwalk Streetscape: Lansing Circle

Existing Conditions

The Lansing Circle site consists of adjacent double and triple storey apartment buildings in a high density neighborhood located at Hickory Street and Lansing Circle (see figure 5.32). The total site is approximately 24,500 square feet, triangular in shape, currently planted in water intensive turf, and located adjacent to the south side of the creek channel and right-of-way. The neighborhood apartment buildings are parallel to

the Escondido Creek Trail on both the north and south side of the creek. The existing creek trail is currently within the right-of-way on the north side of the creek.

Site Opportunities

One of the greatest opportunities at the Lansing Circle site is the community's interest and willingness to collaborate with the City of Escondido and the

property owner to steward their neighborhood. The victory garden (figure 5.34), a future effort through this collaboration, will be a symbolic reflection of the effort the neighborhood and the local leaders have invested in converting this cul-de-sac from a once downtrodden and blighted street to a close knit community invested in the success of its future. This remarkable conversion can be attributed to the hard work invested by the residents, community leaders, and property manager.

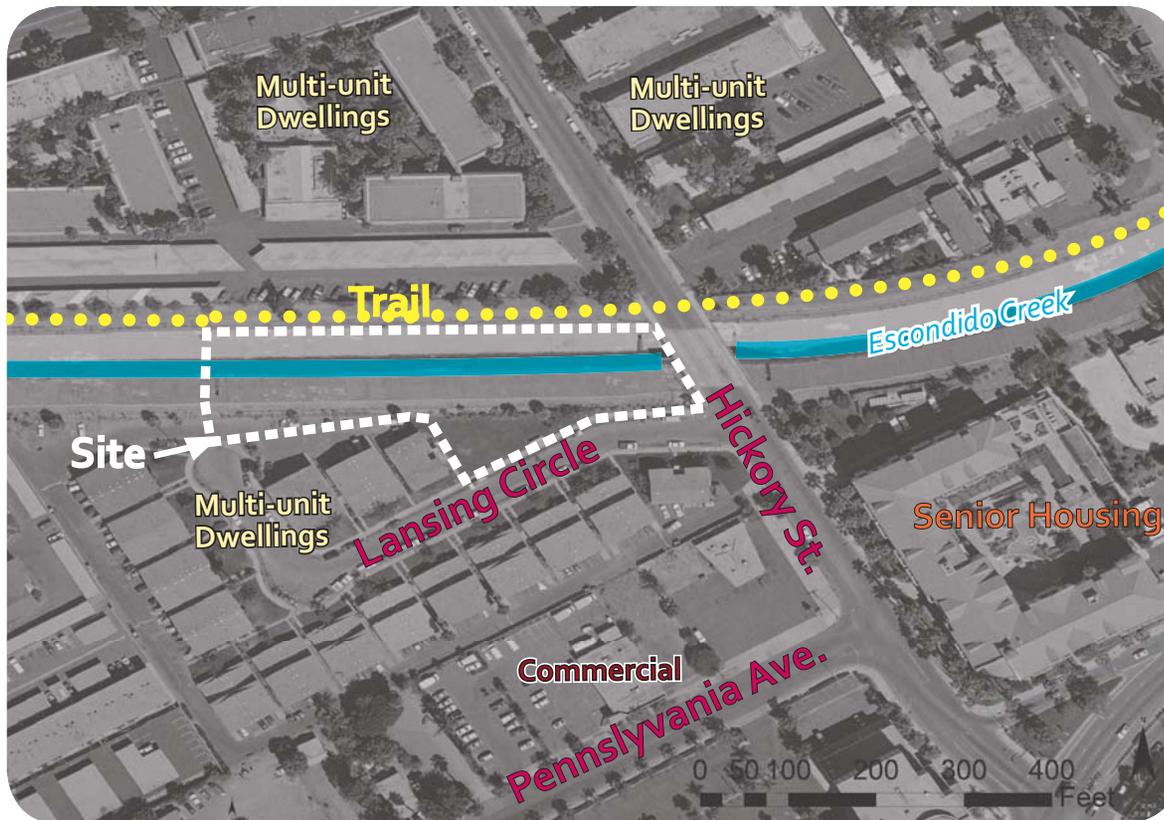
Other opportunities at this site include southern exposure, ample sunlight and the potential to expand the area of the victory garden to include the under-utilized, city-owned right-of-way land adjacent to the creek channel (figure 5.33). In addition, an irrigation system exists in the triangular area and can be modified for the victory garden.

Site Constraints

Constraints presented within the existing conditions of the Lansing Circle site include access limitations to the 20 feet wide city-owned channel right-of-way on the south side of the creek. These limitations are both physical, such as the blocked access caused by the gate and fencing, as well as political, such as the policy restricting public use of the space.

Utility lines embedded in the walls of the channel will limit the root area of vegetation—any trees considered for the site, especially in the proposed orchard area (see figure 5.35), must be carefully placed so as to avoid contact with lines and the potential damage their roots may cause.

A grade change of up to five feet exists along the southern slope of the channel walls and the



Source: Escondido Creek Design Team

Figure 5.32 Lansing Circle Location Map

Creekwalk Streetscape: Lansing Circle



Source: Escondido Creek Design Team

Figure 5.33 Lansing Circle Maintenance Gate

triangular growing area owned by the apartment building. This grade change can be significant given the scale of this site and can be a hindrance to site circulation. However, the sloped area can prove advantageous if strategically incorporated into the placement of the vegetable beds, particularly for crops in need of good drainage. In addition, the irrigation system will have to be expanded to include the right-of-way area on both sides of the creek to expand the growing areas.

Site Typology

Each side of the seven miles of concrete channel was constructed with a strip of land serving as a channel setback at the top of the channel walls. These setbacks, or rights-of-way, average 20 feet wide, and represent a large underutilized stretch of land through the center

of the city. In fact, it is along the channel right-of-way that the current Escondido Creek Trail is built. Most the channel rights-of-way have been paved over to allow for maintenance access, if needed. However, this land is city-owned and, if cleverly coordinated, these strips of land could be put to greater use through implementation of low impact design solutions; lowering the city's maintenance budget. The Lansing Circle site was chosen to illustrate an option for low impact use along the right of way; the typology for this Creekwalk Streetscape is a channel right-of-way.

Focused Opportunity

The focused opportunity for Lansing Circle is an example of a public/private partnership. Public/private partnerships are mutually beneficial

agreements arranged between two or more partners: the public partner represents a municipality or governmental entity and the private partner is typically a landowner or the head of a commercial enterprise.

In the case of Lansing Circle, the City of Escondido, the property owner of the apartment building at Lansing Circle, and the residents have entered into an arrangement to turn a once blighted neighborhood into a lively communal space in 2010. The city has partnered with the owner and manager of the complex to beautify the land adjacent the creek and right-of-way to the south side of the channel. This land has the same ownership as the apartment building and the building owner has agreed to allow the current turf landscape to be converted into a communal garden as of September 2010. The city has agreed to help



Source: Escondido Creek Design Team

Figure 5.34 Lansing Circle Neighborhood

Creekwalk Streetscape: Lansing Circle

build and buy the materials for raised planting beds and the residents will plant the landscape, maintain the space, and keep it looking aesthetically pleasing for themselves and trail users adjacent to the site. This arrangement will instill a sense of stewardship over the land as the residents reap the bounty of the landscape.

Options for other partnerships exist along the creek. Another example of a possible public/private partnership may involve installing lighting for commercial buildings that light both the commercial property and the trail at night.

Goal

The goal for Lansing Circle is to unify a neighborhood by providing a central, public space for the enjoyment of the outdoors and socializing. The design objectives are met through a partnership designed to foster the implementation of a victory garden, a community space dedicated to the growing of fruit stand vegetables, and outdoor recreational spaces. Lansing Circle design solutions address the vision plan design framework by connecting people with food sources, providing space for food production, reducing food bills, and engaging the residents in community building and land stewardship.

Design Response

The public/private partnership between the City of Escondido, the apartment building management, and the residents had been initiated before the *Revealing Escondido Creek* project began, but the present arrangement includes only the property beyond the creek channel and right-of-way which is actually owned by the apartment building landowner. The

design solutions in this vision plan differ slightly from the agreement currently in place, expanding the arrangement to include the city-owned right-of-way land adjacent to the concrete channel on both sides of the creek. This greatly expands upon the current arrangement, providing a much greater total area dedicated to the growing of vegetables as well as adding much needed community outdoor space.

A few key elements in the Lansing Circle design are the new community fiesta space; the 10,000 square feet of beds, orchards, and planting areas; and the outdoor classroom area along the creek trail. Other features include a divided pedestrian and bike trail to enhance safety for people strolling the gardens or biking by, the water collection shade structures along the trail, and the mini orchard along the trail. A Creekwalk banner celebrates the site, draws attention to the revitalized community, and allows residents to publicize upcoming events or display artwork flags of their choice.

Benefits

The nearest grocery store is several city blocks away, a great inconvenience for a neighborhood in which many do not have access to cars. These design improvements give residents access to land to grow their own fresh produce and help lower grocery bills for residents and reduce car reliance. Expected yield from the 10,000 square feet communal garden is 5,000 pounds per year (Ohio State University Extension 2007). In addition, residents who garden and enjoy the landscape with each other can help build neighborly relationships. With the addition of mature trees, the creek can benefit with increased shade cover.

This public/private agreement benefits all involved: residents gain access to land and outdoor space not typically afforded apartment dwellers and are able to keep the harvest; the building owner and management gain a beautified landscape cared for by residents which cuts maintenance and costs; and the City benefits from the strengthened sense of community and security as neighbors help care for and oversee their community.

Implementation Strategy

Implementation of the victory garden vision has already begun. When the Revealing Escondido Creek design team first visited the site in January 2010, the land was still planted in turf and the city had just begun discussion with the property manager and the residents on partnership options. As of the team's most recent visit to the site just six months later, the triangular patch of land was teeming with verdant vegetables—a brilliant example of how quickly good ideas can take root when stakeholders and municipalities face challenges head-on and in collaboration. Short-term improvements include the changes already taking place—the planting of the vegetable beds along the triangular land. Long term goals strive to expand the communal land to include the building of the community fiesta space, the installation of vegetable beds, the orchard along the right-of-way and trail, and the building of the divided bicycle and pedestrian trails.

Creekwalk Streetscape: Lansing Circle

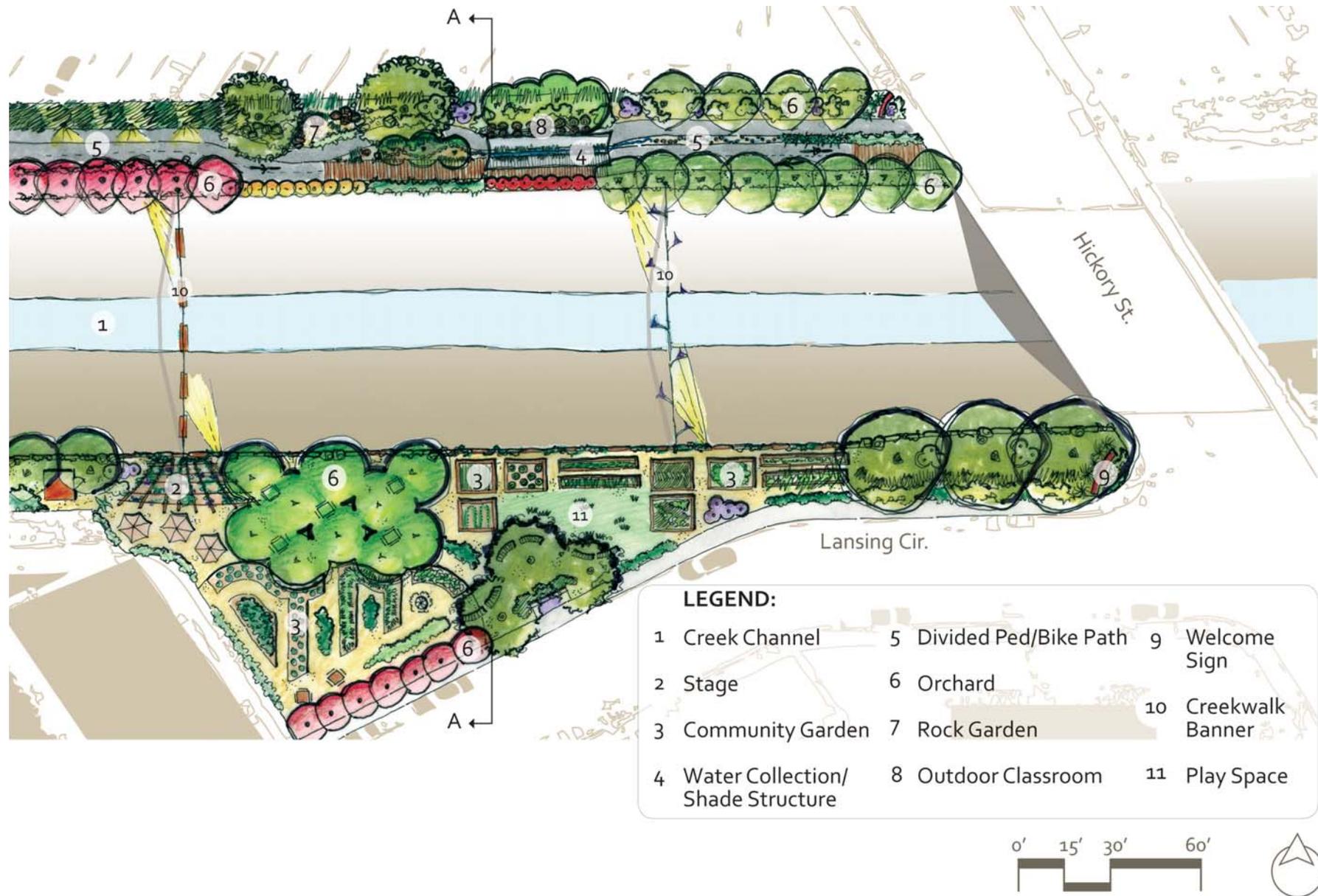


Figure 5.35 Lansing Circle Design Plan

Source: Escondido Creek Design Team

Creekwalk Streetscape: Lansing Circle

Lashbrook Park: Doing More with Less

A 75-foot strip of vacant land along the Rio Hondo River in El Monte, California, was given a new lease on life when the non-profit Amigos de los Rios, the City of El Monte, and the County of Los Angeles joined forces to convert the land to a linear pocket park. Completed in 2006, Lashbrook Park made use of an unused portion of right of way along the Rio Hondo channel adding much needed park space to a community with little parkland (Esparza 2006).

Lashbrook Park serves as a critical segment along the Rio Hondo network and expands access for residents of El Monte to a series of open spaces within the 17 mile loop known as the Emerald Necklace. The Emerald Necklace connects 500,000 residents in 10 cities to the Rio Hondo and San Gabriel rivers trail network in the Los Angeles region (Office of Gloria Molina 2010, Amigos de los Rios 2004). Lashbrook Park is the gateway for the community of El Monte to this regional trail network asset.

The conception and construction of Lashbrook Park was a successful collaboration between local agencies and residents. The City of El Monte worked closely with the County of Los Angeles and the citizen group, Amigos de los Rios. Over 300 residents participated in the design and success of the 1.8 acre park (Office of Gloria Molina 2006). A team of volunteers helped with construction of the park and among the volunteers were at-risk youth from the L.A. and San Gabriel Conservation



Figure 5.36 Bike Trail & Signs

Source: Escondido Creek Design Team



Figure 5.37 Bike Trail & Park Space

Source: Escondido Creek Design Team

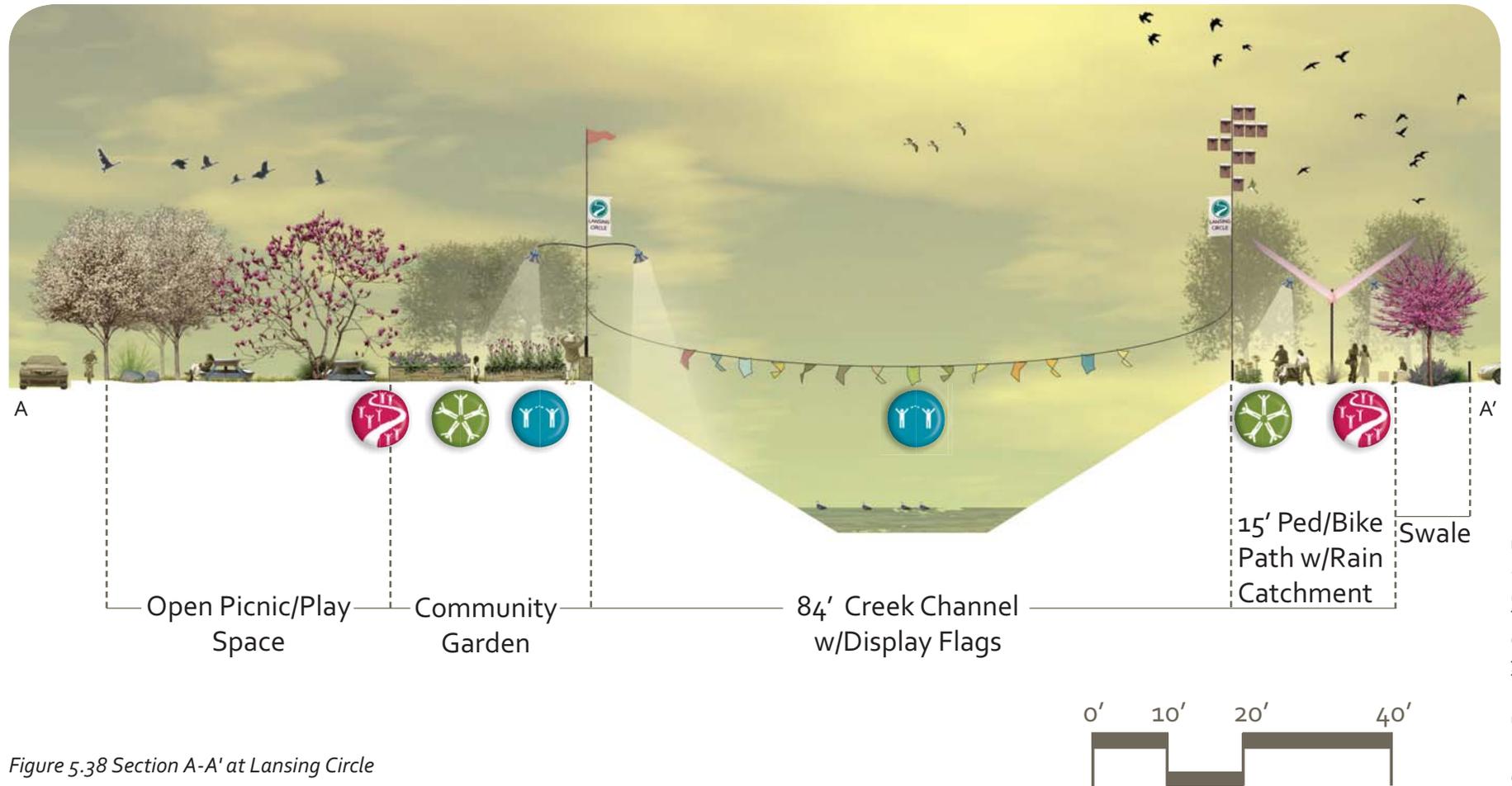
Corps. Funding, acquired by the County of Los Angeles through Proposition 40, was limited and these efforts helped to stretch the modest budget of less than \$500,000 as far as possible.

Before work commenced the park was a barren lot between the neighborhood and the river channel. Now the strip of land features community benefits such as picnic benches, a playground, exercise equipment, trails and thriving vegetation.

In addition to improving the neighborhood, the park features environmental benefits as well. A swale running the length of the park cleans and infiltrates runoff from the neighborhoods before it flows into the river. The park's plant palette features a mix of California natives and drought tolerant species which, now that they are established, thrive without irrigation.

Once a barren plot, Lashbrook Park now provides the community of El Monte with a park and a portal to a regional trail network. Collaboration between the City of El Monte, the County of Los Angeles, and the local residents helped to bring the much needed open space to a park poor community. Careful use of resources and creative planning helped turn an unused strip of land into a community asset.

Creekwalk Streetscape: Lansing Circle



Source: Escondido Creek Design Team



BRIDGE

The site *Bridges* by connecting people with food sources through the victory garden program and expanding edible growing space with raised beds and orchards.



COLLECT

The site *Collects* by providing outdoor fiesta space through the addition of a stage and creating savings on food bills with the edible growing space.



DISCOVER

The site *Discovers* by providing an outdoor classroom to teach residents methods of food production.

Creekwalk Streetscape: Windsor Place

Existing Conditions

Windsor Place is a residential cul-de-sac which dead ends adjacent to the creek trail (see figure 5.39). The exiting gate to the trail is currently locked, preventing access to the trail by the residents or to the neighborhood by users of the creek trail (see figure 5.41). This potential access point is flanked by a residential district and a large commercial district. Del Dios Middle School is a quarter mile walk from the locked gate at the creek trail. Windsor Place experiences low traffic volumes because it is not a through street, thus, it is an ideal location for pedestrians and cyclists to access the creek trail. Windsor Place currently has sidewalks and a paved apron providing vehicular access to the gate at the creek trail. However, no other amenities for pedestrians or cyclists exist.

Site Opportunities

Due to its proximity to residential neighborhoods, large commercial shopping centers and Del Dios Middle School, Windsor Place presents the city with an excellent opportunity to easily increase public access to the creek trail. The low volume of traffic using the quiet cul-de-sac poses the greatest opportunity for Windsor Place. Opening a gateway from the trail via Windsor Place allows students to avoid the use of busy Auto Park Way, positioning Windsor Place as an ideal candidate for inclusion as a safe route to Del Dios Middle School, and creating opportunities for Safe Routes to School funding and support. Additionally, the low traffic volume makes this cul-de-sac an ideal location for a neighborhood pocket park.

Site Constraints

The greatest constraints to the site at Windsor Place are social and political in nature. Opening the cul-de-sac at Windsor Place could meet with resistance from nearby residents who do not want to see increased pedestrian and cyclist traffic on this residential street. The development of a pocket park in this location would result in additional expenditures by the city for maintenance and police patrols. Finally, as with any plan to spend valuable municipal funds and change the status quo, any

plan to alter Windsor Place is subject to political will and city budgetary constraints.

Site Typology

Windsor Place is a typology common to the streets adjacent the Escondido Creek—a cul-de-sac. At the cul-de-sac street end, a locked fence gate severs Windsor Place from the creek trail and prohibits potential users from access. Design solutions proposed for Windsor Creek can be applied to the numerous cul-de-sac street ends found along the Escondido Creek.

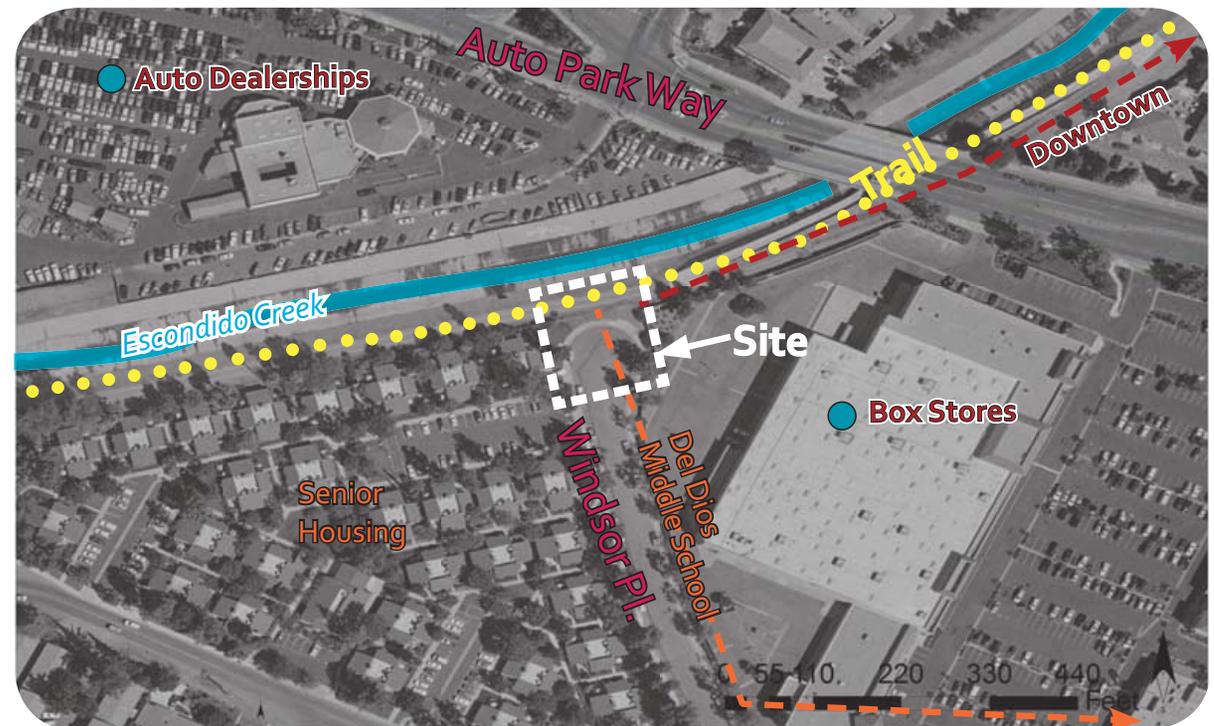


Figure 5.39 Windsor Place Location Map

Creekwalk Streetscape: Windsor Place

Focused Opportunity

Increasing the porosity between the trail and the adjacent neighborhoods is one of the ways this project hopes to increase the community's use of the creek trail. Windsor Place is an excellent example of a neighborhood closed off from the creek trail and, through the design recommendations, demonstrates the ease of increasing the level of porosity between the trail and the nearby neighborhoods. Many locations exist along the creek trail, such as Windsor Place, in which simple connections can be created just by eliminating a fence or wall in a neighborhood. The opportunity that exists at Windsor Place is one of access and site usability.



Source: Escondido Creek Design Team

Figure 5.41 Existing Conditions at Windsor Place



Source: Escondido Creek Design Team

Figure 5.40 Escondido Creek at Windsor Place



Source: Escondido Creek Design Team

Figure 5.42 Creek Trail at Windsor Place

Creekwalk Streetscape: Windsor Place

Goal

The goal of the design team for Windsor Place is to provide public access to the creek trail. Trail access will target residents of the senior residential village, enable students safe passage via the creek trail (in combination with residential streets) to the local middle school, and provide an example of a pocket park immediately adjacent to the creek trail.

Design Response

A pocket park constructed at the intersection of the creek trail and Windsor Place provides a valuable access point to the Escondido Creek Trail. With the installation of benches, shade trees and other user amenities the currently underutilized dead-end can become a valuable neighborhood node (see figure 5.43). The adjacent senior housing village would be connected to the creek trail through removing the fencing, encouraging community interaction with and awareness of the creek and trail. By simply removing a portion of the chain link fencing, planting shade trees, installing benches, and including some community identifying elements, a simple and relatively inexpensive neighborhood amenity can be created and access to the creek trail is greatly improved.

Implementation Strategy

The initial implementation of the design response at the Windsor Place site requires very little investment from the city. The first steps could include unlocking the gates between the creek trail and Windsor Place. The installation of



Figure 5.43 Design Implementation at Windsor Place

appropriate shade trees as well as benches and other park elements could follow as resources become available. The suggestions for this site are cost effective and relatively inexpensive but could be the first steps in the city's goal to reimagining the Escondido Creek and Trail.

Design Benefits

Through the installation of basic park amenities, a once underused and barren strip of City land can become a neighborhood node, gathering place and community asset. By allowing creek trail users to

access Windsor Place, the city is increasing the number of safe routes to schools for students and access to the trail in general. This example of improved access at Windsor Place not only makes it easier for people in the neighborhood to access the creek trail, it also helps trail users access neighborhoods. These design solutions greatly reduce the chance a trail user could be cornered by an aggressor and improves trail safety. Employing these suggestions at other cul-de-sacs along the Escondido Creek Trail will greatly improve circulation and the ease with which trail users can enter and exit the Escondido Creek Trail.

Source: Escondido Creek Design Team

Creekwalk Streetscape: Windsor Place

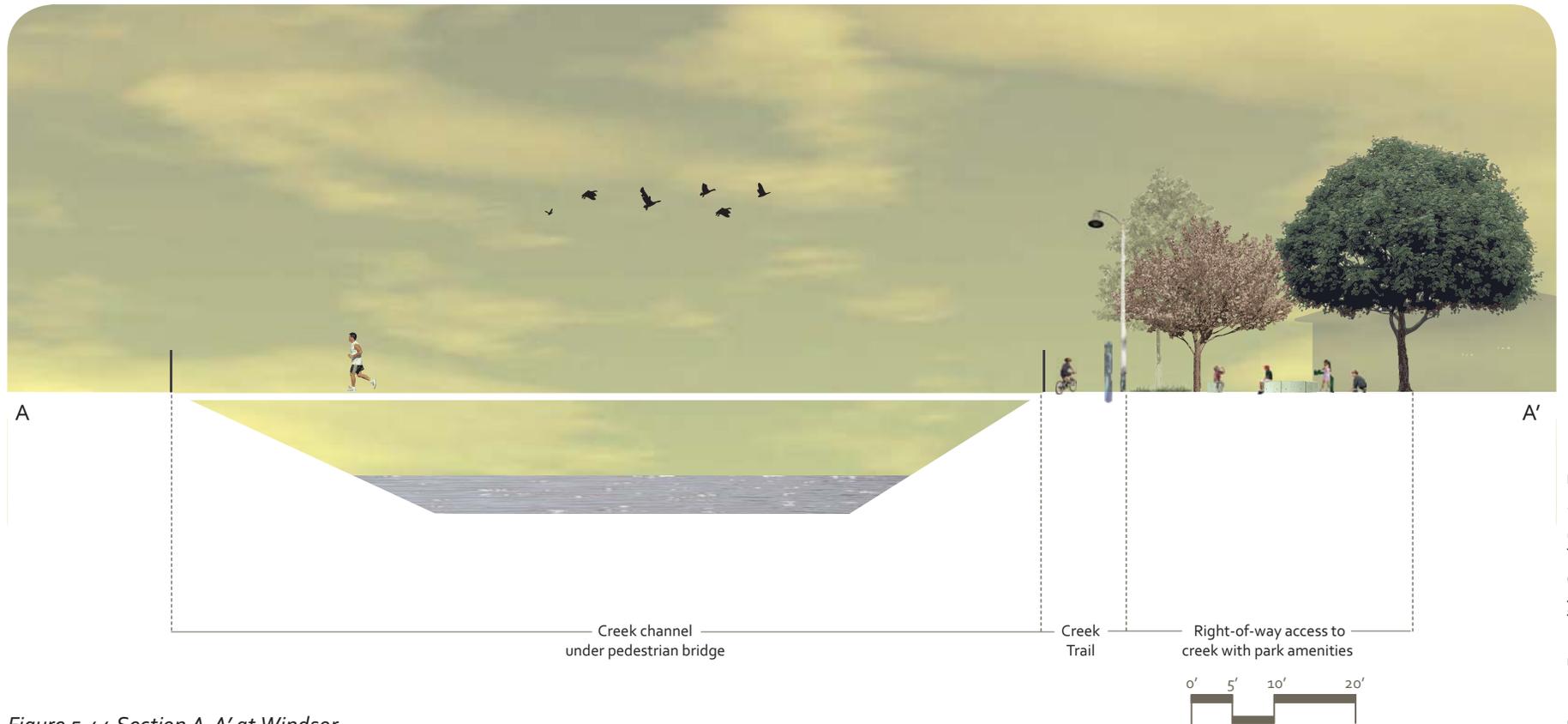


Figure 5.44 Section A-A' at Windsor

Source: Escondido Creek Design Team



BRIDGE

The site *Bridges* by opening up the creek trail to Windsor Circle, creating a safe route to the neighborhoods, shopping districts and nearby middle school.



COLLECT

The site *Collects* by creating a pocket park serving as a community meeting place and an interface between the nearby commercial areas, schools and residential neighborhoods.



DISCOVER

The site *Discovers* by increasing access for new users to the Escondido Creek and Trail through the opened access.

Creekwalk Destination: Urban Wild

Existing Conditions

The Urban Wild Creekwalk Destination is located at the intersection of Ash Street and the Escondido Creek (see figure 5.45). The site is located on the northern side of the Escondido Creek corridor with the existing Escondido Creek Trail currently running along the southern side of the channel. The site comprises approximately 5.5 acres and is presently vacant (see figure 5.46).

Site Opportunities

The site is owned by the City of Escondido. The ownership and the site's vacant status eliminates typical barriers to implementation posed by land acquisition and greatly increases the likelihood design plans for this site could be fulfilled.

The physical attributes of the site present further advantages. At 5.5 acres, the size of the site offers

versatility in the design to meet a myriad of design objectives and demands from the community. The site is tangentially located next to the Escondido Creek providing opportunities to enhance stream hydrology and habitat, as well as opportunities to develop a connection and relationship between the community and the creek. The creek trail runs south of the site and the City of Escondido's current project to build a trail underpass beneath Highway 78 (Ash Street) enhances access to the site, and will provide safer passage for trail users to the site.

The physical context inspires unique programming. The urban neighborhood surrounding the site offers a high density, multi-use backdrop upon which to stage Urban Wild. Seven schools are within walking distance, creating opportunities for programming targeting school age children.

Site Constraints

Constraints presented by the existing conditions include the encroachment of buildings and land uses upon the creek corridor within the site. These land uses have been established within the floodplain and restrict design options for the site.

Access to the site is currently limited by the existing conditions. The northwestern corner of the site is bound by a major intersection (Highway 78—Ash Street and Washington Avenue) with high traffic volumes. Both streets are wide with multiple lanes restricting the flow of pedestrians to the site. (Once constructed, the underpass at Ash Street will rectify this constraint.) Crossing the creek from the creek trail on the south to the site is currently limited to the roadway bridges at Ash Street and Harding Street.

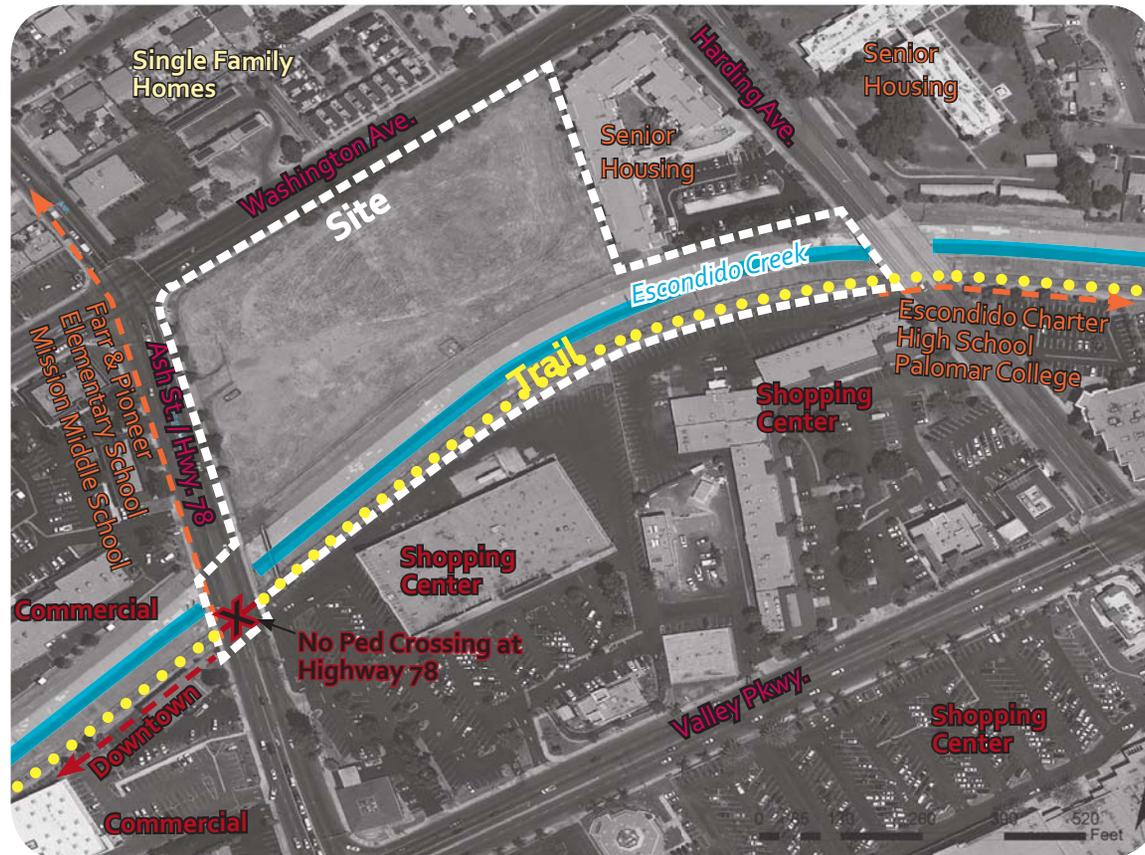


Figure 5.45 Urban Wild Location Map

Creekwalk Destination: Urban Wild



Figure 5.46 Ash Street Intersecting Creek Trail

Source: Escondido Creek Design Team

Site Typology

High building and population density, the various land uses adjacent to the site, and the grid street plan defines the context of this site as urban. Design responses proposed for this site may be appropriate for other sites along the Escondido Creek are also characterized as urban, or demonstrate these attributes.

Focused Opportunity

The inspiration to focus this urban site on environmental awareness was derived from its setting—the high population density of the surrounding neighborhood, the seven nearby

schools, and the location of this site adjacent to the flood control channel. Typically, interpretive or nature centers are located far from city centers in locations removed from most peoples' homes. By transporting the nature center and locating it within the urban context, the Urban Wild interpretive center is positioned to reach a broader audience, thus generating a greater impact.

Goal

In our present culture it has become common to regard nature as a phenomenon occurring in a location removed from human homes and communities—as something that exists only at an open space or preserve. This perspective overlooks



Figure 5.47 Vacant Lot at Site

Source: Escondido Creek Design Team

Creekwalk Destination: Urban Wild

our connection to the nature that exists around us within our human engineered systems. The goal for Urban Wild is to reconstruct this misperception by providing an opportunity for the community to learn about the flora and fauna living within the urban environment.

Design Response

Urban Wild is an environmental education park unlike any other in the region, instead of focusing on the nature that exists in remote preserves beyond human drawn city boundaries, its focus is turned inward, on the nature existing within the urban framework. Urban Wild's location, central to the city, reinforces this scope. Often the environmental education parks (EEPs) located in the outskirts of town are limited to the people who have the means or ability to visit. Positioning this park within the urban framework attempts to bridge the physical disconnect and, in so doing, reach a population often underserved by EEPs—the urban dweller.

Urban Wild showcases the myriad of creatures living within the urban context, many of whom rely on human systems for their very survival. Urban Wild ventures to reveal to visitors the connection we as humans have to “nature” and the role each of us plays in either protecting or destroying the environment.

Seven schools are within walking distance of Urban Wild presenting unique opportunities to develop curriculum-based educational programming. With budget restrictions and liability concerns rendering field trips all but obsolete, Urban Wild poses an opportunity to expand classroom learning in a nearby off-campus setting. Programs exploring the hydrology and ecology of Urban Wild will be directly relevant to



Figure 5.48 Sunflower Courtyard at Urban Wild

the school children's own backyards. This type of learning experience early in a child's development can foster a child's awareness of place and spur an interest in environmental stewardship.

The Urban Wild Interpretive Center is designed to be the main visitor center for the Escondido Creekwalk. Located in the center of Escondido, the Interpretive Center is intended to be available to visitors near their houses. Programming for the Center is geared to educate visitors on the living systems found just outside, or in some cases, inside, visitors' urban and suburban homes. Educational

components will focus on both wild and domestic, native and non-native fauna and flora species. Programming will include docent-led walks through the park and riparian habitat, interpretive displays, and demonstration gardens. Examples of species visitors may learn about during their visit, amongst many others, are the yuma myotis bat, the coyote, the snowy egret or the domestic cat. Plant species may include western sycamore, eucalyptus, white sage, citrus trees, or turf grass (see figure 5.50).

Beyond the Interpretive Center, the other site features are designed to reinforce the learning through on-site

Source: Escondido Creek Design Team

Creekwalk Destination: Urban Wild



Figure 5.49 Urban Wild Design Plan

Source: Escondido Creek Design Team

Creekwalk Destination: Urban Wild

outdoor experiences. The restored riparian habitat along the modified creek channel fosters wildlife and allows for visitors to witness riparian ecology at close range.

Cradled in the slope of the riparian channel is an outdoor amphitheatre and stage. Intended to withstand the periodic inundation of the rainy season, this space provides natural seating for an open air classroom, or musical/theatrical performances. A screen supported by removable posts allows for the showing of summer films. In addition to programming, the riparian amphitheatre reveals to park visitors seasonal fluctuations in the creek as it rises and falls as it passes through the amphitheatre space during different seasons

The cultivated gardens in the park provide opportunities for visitors to learn about specific habitats and the relationships between plants and living creatures. The butterfly and dragonfly gardens provide opportunities for park visitors to learn about insect habitat. In addition to the signature species, the gardens will feature other insects and will illustrate the intricate ballet between fauna and flora. The vegetable demonstration garden will teach visitors methods for raising food organically in a small plot of land.

Even the parking lot and turf field pose learning opportunities. The parking area is an unpaved lot constructed of a porous decomposed granite surface. The material was chosen to reduce stormwater

runoff by allowing for percolation of water into the ground on site. The turf field is designed to be large enough to serve as an informal soccer field. Visitors may be attracted to the park to watch a soccer game but will be introduced to environmental education while visiting. This park may serve as an entry for local residents to participate in environmental education programs.

The park's programming, however, is not limited to education and includes opportunities for community recreation. The Sunflower Courtyard is an active focal point, replete with a water wise fountain, intended to serve as the featured gathering space for both the park and the Interpretive Center. The nearby native grass meadow is a large play space of soft grasses amongst undulating topography. This meadow supports unstructured play allowing children to explore, frolic and tumble.

Benefits

Benefits of the Urban Wild design include increasing community awareness of living systems in the urban environment, increasing habitat for wildlife, improving water quality, and providing open space and recreational opportunities for a high density neighborhood.



Source: Escondido Creek Design Team

Figure 5.50 Sunflower Fountain & Grass Mounds

Creekwalk Destination: Urban Wild

San Jose Guadalupe River Park

Devastating floods in 1986 and 1995, as well as multiple past flooding events, prompted a major restoration project for the San Jose Guadalupe River Park in 1992 and completed in 2004 (Guadalupe River Park Conservancy 2010). The Guadalupe River is an urban stream similar to Escondido Creek which flows from the Santa Cruz Mountains through downtown San Jose and drains into the San Francisco Bay. The primary goal of the project was to improve channel capacity of the semi-natural creek from a 10 year to 100 year storm event (GRPC 2010). The goal was met successfully through conservative measures which did not require channelizing the entire stream with concrete. Innovative techniques included terracing the side channels with rock gabions and riparian trees. Figure 5.51 illustrates the use of gabions and trees to open the channel while providing flood control.

Other goals were to provide recreational open space and to protect and preserve steelhead trout and Chinook salmon migration and spawning habitat. The project includes a three mile long linear urban park and trail, bringing increased traffic to businesses adjacent to the river. A diversified transportation network allows residents and tourists to travel the length of the project with separate pedestrian and bicycle trails. Two trail networks were developed: a temporary trail very close to the river is allowed to flood as storm events occur, and a second network is a permanent trail above



Figure 5.51 Bike Trail & River

Source: Escondido Creek Design Team



Figure 5.52 River Park Bike Trail

Source: Escondido Creek Design Team

the floodplain, safely removed from potential floods (GRPC 2010).

A collaborative process using a watershed-based approach to design and engineering the Guadalupe River, the project was overseen by the U.S. Army Corps of Engineers and the Santa Clara Valley Water District. The project created a savings of 27 million in annualized flood damages and proved to be a success in environmental restoration and flood control (GRPC 2010). Flood insurance is no longer a requirement for property owners as the restoration removed properties from FEMA flood designation (GRPC 2010). Steelhead and salmon species are now able to successfully spawn and migrate in the watershed.

The Guadalupe River Park serves as an inspiration for the Urban Wild site along the Creekwalk in Escondido. The use of the stepped channel created with gabions and riparian trees as an alternative to a box or trapezoid channel allows for access to the river while maintaining flood control. During periods of low rainfall, the space created by the stepped channel walls can be used as a gathering and public space. During periods of rain, the channel accommodates the stormwater capacity. With this method, the channel can be safely integrated into the larger park instead of being solely an infrastructural element off-limits to the public.

Creekwalk Destination: Urban Wild

Channel Modification

The purpose of modifying the existing concrete channel is to open the channel, provide habitat, improve water quality, shade the stream, and improve stream aesthetics—while maintaining the same flood capacity provided by the current channel conditions.

A close study of the existing conditions and watershed are required in order to be able to modify the channel. Following is an overview of the existing conditions of the channel at Urban Wild, the watershed of this site and the resulting design response.

The watershed area for Urban Wild is approximately 20,000 acres. A 100 year storm event for the Escondido area is a storm with a peak

Watershed Area acres = 20,200		
Cubic Feet/Second (Q) = 12,531.5		
100 year Storm Intensity in/hr = 2.30		
	Existing Channel	Redesigned Channel
Peak Storm Event Velocity ft/sec	33	15
Area of Cross Section	363' sf	832' sf
Wetted Perimeter	57'	124'
Roughness Coefficient	0.014	.034

Table 5.5 Modified Channel Chart

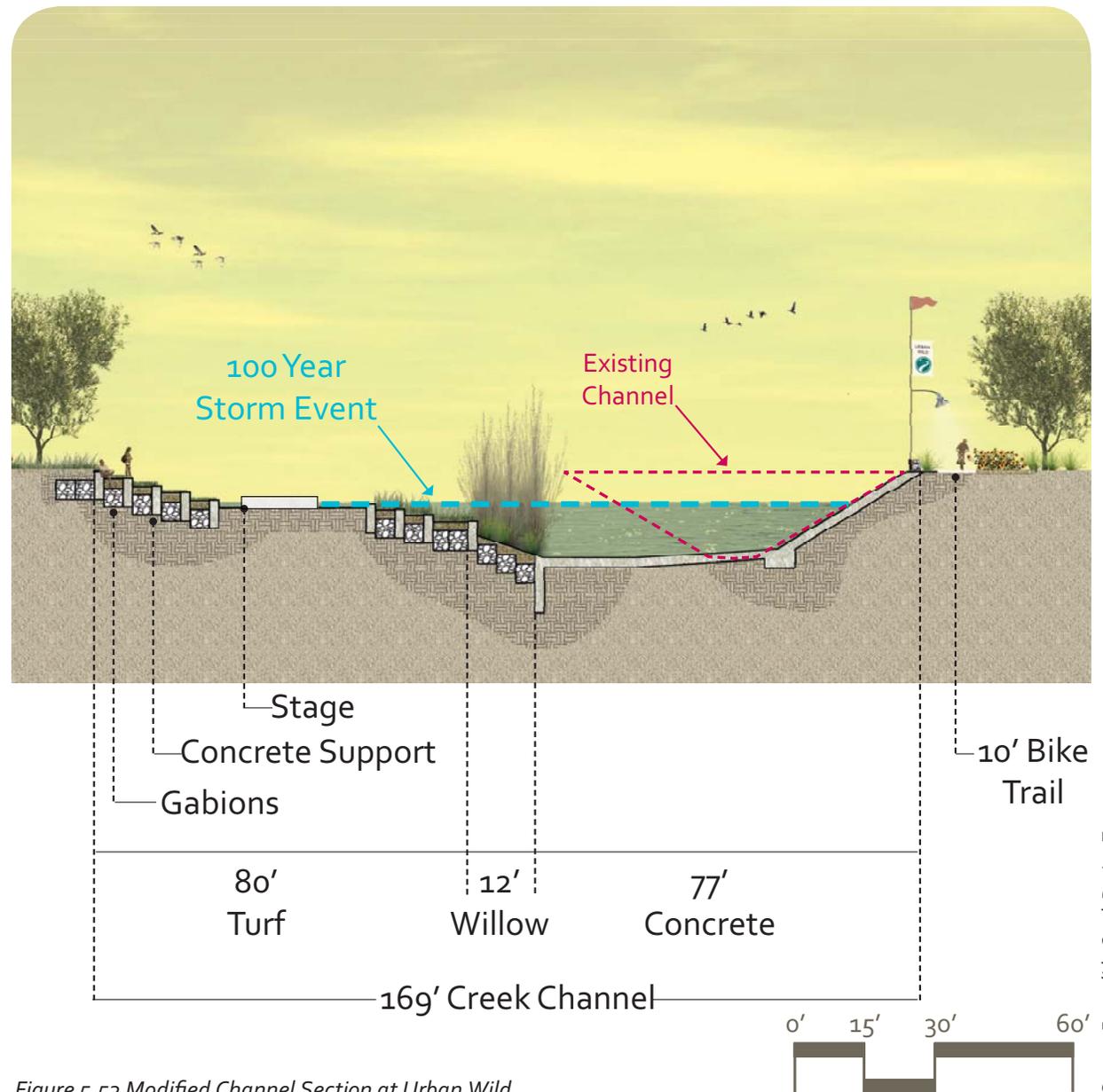


Figure 5.53 Modified Channel Section at Urban Wild

Source: Escondido Creek Design Team

Creekwalk Destination: Urban Wild

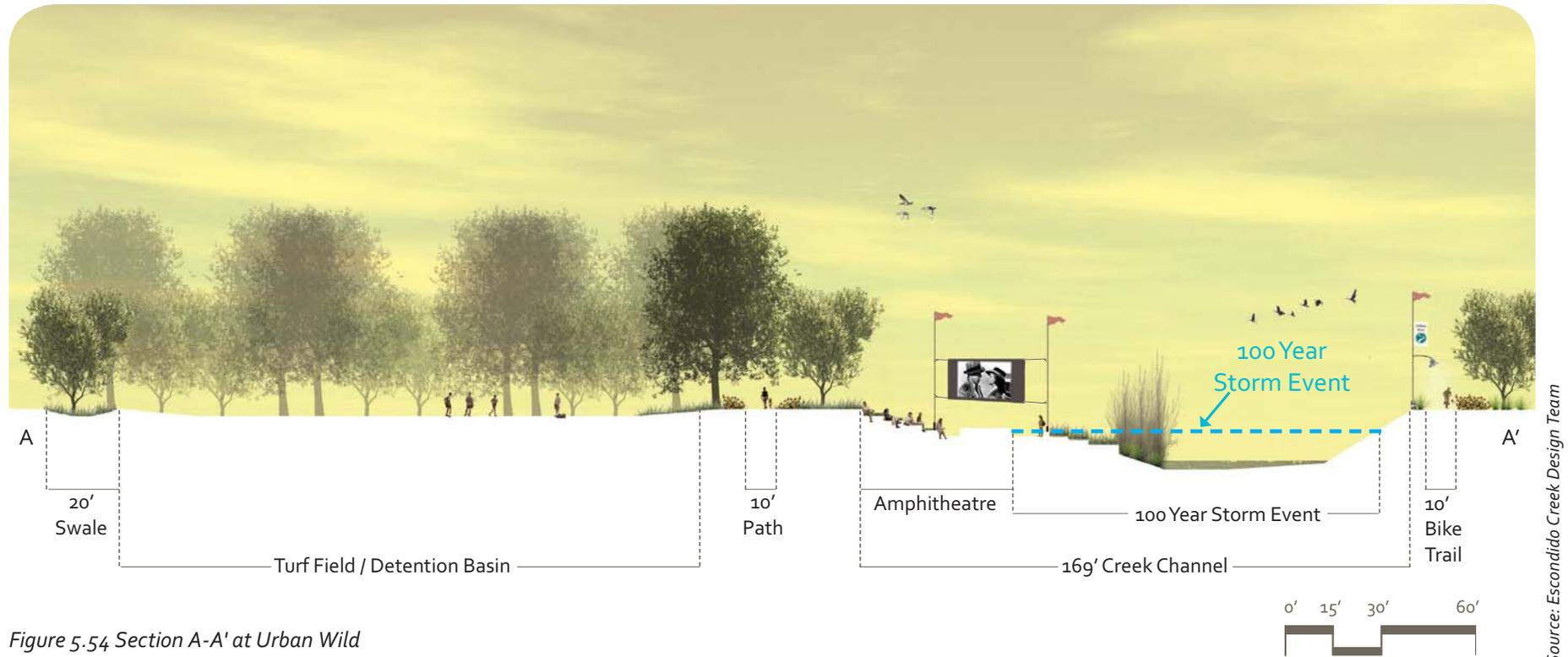


Figure 5.54 Section A-A' at Urban Wild



Figure 5.55 Modified Channel Map

Source: Escondido Creek Design Team

in precipitation at 2.3 inches an hour. At this storm intensity, the cubic feet/second of water coming through the channel for this site (known as Q to hydrologists), is 12,500 cubic ft sec. The concrete of the existing channel is relatively smooth which equates to a high velocity flow within the channel: 33 feet/second. This velocity is so high, vegetation and soil in which the vegetation is planted, will be washed away by a peak storm event given the current conditions.

It is necessary to decrease the velocity in order to prevent erosion and securely plant vegetation in the

modified channel. Channel velocity is decreased by increasing the area of the channel cross-section. A modified design channel width was established given the set back from the channel, the existing conditions, and a target velocity for the redesigned channel. The area of the redesigned channel cross-section was used to calculate what the appropriate channel roughness could be to accommodate the volume in the redesigned channel. The vegetation and materials of the redesigned channel have a greater roughness factor than the smooth concrete of the existing channel. To meet the Q (12,500 cubic ft./sec. during a peak storm event)

Source: Escondido Creek Design Team

Creekwalk Destination: Urban Wild

with a design velocity of 15, the target roughness coefficient has to be .034. This prescribes exactly the proportion of concrete, willows, and turf that can be introduced into the channel.

In the redesigned channel, the channel walls are secured by concrete along the southern bank, and gabions and concrete staples along the northern bank. The gabions, an alternative to non-porous concrete, allow a planting area and water infiltration. The area between the concrete staples is finished in soil and planted with turf. Willows are planted in the stream bottom near the low flow level. The willows planted in the channel at the stream's edge serve to extract pollutants and debris from stormwater in the stream and provide habitat for avian and insect species.

The entire modified channel can withstand inundation during peak storm events. The willows and turf help to slow the flow of water minimizing downstream flooding due to high volume flows just after the peak of a storm. The gabions and concrete secure the levees. The majority of the time, however, when the stream flow is low, the channel, through simple modification, becomes more than a stormwater conveyance—it is a social space for park goers and a refuge for waterfowl.

The section and chart (see table 5.5 and figure 5.53) reveals the flood risk is no greater than current channel conditions. These channel changes are supported by the current thinking at the Army Corps of Engineers. Through simple modification of the existing conditions, flood control is maintained while the channel is opened to human and wildlife access, stormwater

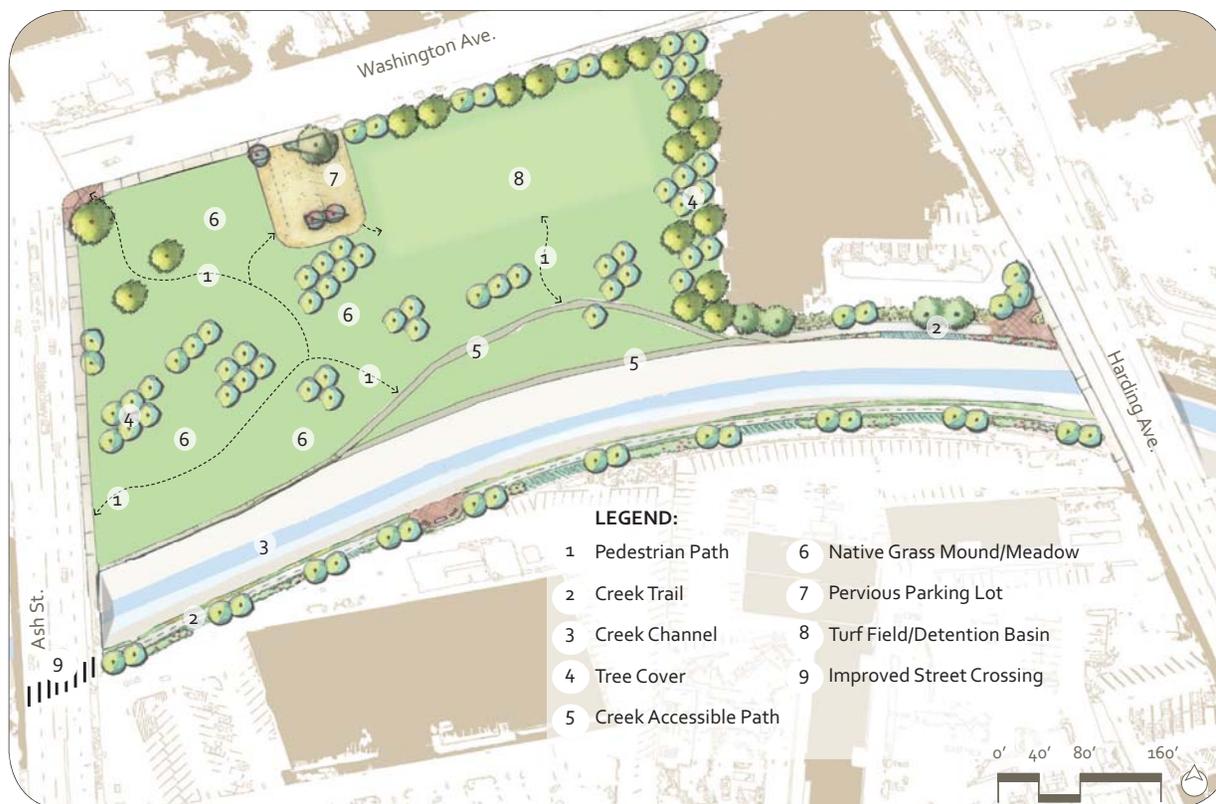


Figure 5.56 Urban Wild Short-term Conceptual Design Plan

is cleansed, water infiltrates, stream aesthetics are improved, and the stream is shaded and cooled.

Implementation Strategy

The development of Urban Wild can occur gradually as funding and resources become available. Implementation may evolve. The first steps require less financial resources, allowing the site to evolve in sequential steps. These early steps may include planting the site with native grasses, sunflowers, and

turf. The native grasses are intended to reestablish habitat at the site. The native sunflowers have been chosen to signal the reclamation of the site from a vacant lot to a community asset. The turf grass will provide a space for the neighborhood to gather or for an impromptu soccer match (see figure 5.57). As resources become available, street access changes the decomposed granite parking lot, trees, and walkways can be constructed. The placement of these features can demonstrate the site's transformation. Small changes can initiate a momentum and reveal that a

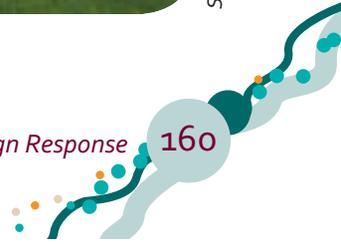
Source: Escondido Creek Design Team

Creekwalk Destination: Urban Wild



Source: Escondido Creek Design Team

Figure 5.57 Urban Wild Short-term Soccer Field



Creekwalk Destination: Urban Wild



Source: Escondido Creek Design Team

Figure 5.58 Short-term Design at Ash Street to Access Urban Wild

transformation of the site is underway. The full implementation of the site with the Interpretive Center, connecting bridge, and channel modification will come into place as resources are available.



Source: Escondido Creek Design Team

Figure 5.59 Existing Conditions
Safety measures are lacking at the intersection of the four-laned Ash Street and the trail. Trail users crossing Ash Street dodge traffic. Improvements include providing pedestrian activated crossing lights, striped crosswalks, a median, and stop signs.

Creekwalk Destination: Urban Wild



Source: Escondido Creek Design Team

Figure 5.6o Urban Wild Framework Locations



BRIDGE

The site *Bridges* by connecting visitors to the living systems within the urban setting, providing wildlife habitat within the channel, and by bringing people to the neighborhood.



COLLECT

The site *Collects* by providing gathering areas and treating stormwater through channel expansion and detention basins.



DISCOVER

The site *Discovers* by providing open space for recreation and educational programming about natural systems in the urban environment.

Creekwalk Destination: The Creekfront

Existing Conditions

The Creekfront uniquely combines two downtown Escondido attractions, Grape Day Park and Civic Center Plaza, into one grand Creekwalk Destination. The Creekfront site comprises the area of Grape Day Park (figure 5.62) along the Escondido Creek and the entire block of the Civic Center Plaza (figure 5.63), located in the civic heart of Escondido. Within this

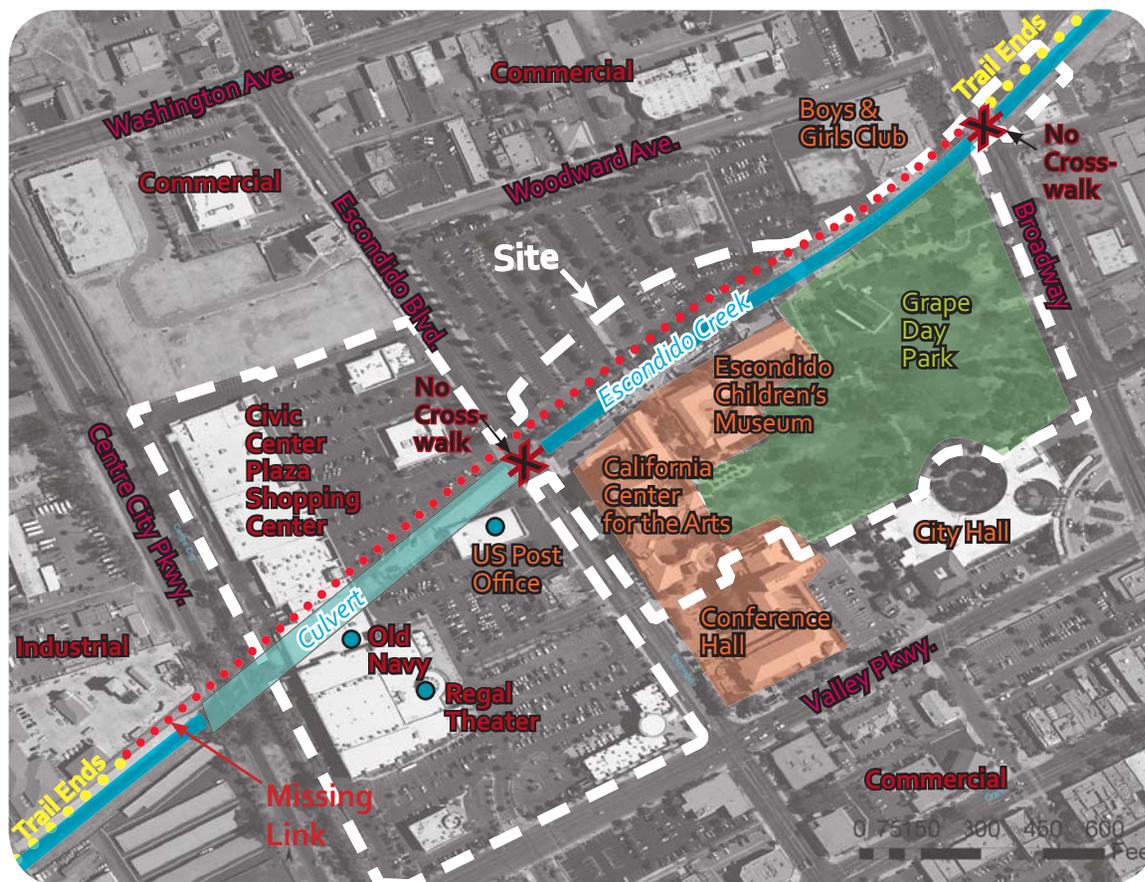
site the Escondido Creek enters a culvert beneath the shopping center parking lot and emerges again on the western side of the shopping center (see figure 5.61). The creek trail ends at the eastern side of Grape Day Park and resumes again at Quince Street near the Transit Center. The site is approximately 34 acres in total.

Site Opportunities

The Creekfront poses a unique opportunity for the City of Escondido to partner with local business and property owners to create a lively destination right in the civic heart of Escondido, offering a complete package of recreational, entertainment, and cultural attractions. Currently the sites offer a variety of entertainment, dining and shopping options for tourists and locals to enjoy. Visitors can catch a live action performance at the California Center for the Arts or a feature film at Regal Theatres. Additional cultural offerings include the Children's Museum, the History Center, and the Heritage Walk in Grape Day Park. Recreational opportunities include swimming in the James A. Stone Pool, playing on the "Grapehenge" play structure, or enjoying an impromptu game of soccer on the sprawling Grape Day Park lawn.

The central location of the site is the key to its success. Located in the heart of downtown, Escondido's major arterial roads—Centre City Parkway and Valley Parkway—both lie within one block of the site. The Escondido Transit Center, offering regional public transit service, is also within one block of the site. In addition, the Escondido Creek Trail meets the eastern boundary of Grape Day Park. Clearly, establishing a through connection for this trail to Quince Avenue.

The physical size of Grape Day Park and the shopping center offer additional opportunities. Underutilized parking areas pose possibilities for continuing the creek trail through the site and restoring connectivity to the creek. These opportunities would greatly enhance connectivity and access to the trail and improve stream hydrology and habitat.



Source: Escondido Creek Design Team

Figure 5.61 The Creekfront Location Map

Creekwalk Destination: The Creekfront



Source: Escondido Creek Design Team

Figure 5.62 Grape Day Park

Site Constraints

The Creekfront area has been central to Escondido as far back as the City's origins. Development and infrastructure have occurred around the site's boundaries, in some cases restricting future development. Connecting the site on the west with the highly traveled Centre City Parkway will prove challenging. Additionally, the performing arts theatre, the property boundary of the Boys and Girls Club,

and the Coldwell Banker Real Estate office may pose constraints to proposed Creekfront buildings and amenities, or channel modifications.

The greatest limitation at The Creekfront, and indeed the entire Creekwalk, is the break in the Escondido Creek Trail between the east side of Grape Day Park and the west side of Civic Center Plaza. This break in the trail, referred to as the 'Missing Link', disrupts travel, forcing trail users on to surface

streets to complete their course of travel. The impact of the Missing Link severs the Escondido Transit Center from the Grape Day Park area, including City Hall, and the east side of the city. In terms of alternative transportation, this Missing Link greatly limits the creek trail's ability to serve effectively as a safe and convenient non-motorized transportation option for the community. The trail represents a considerable investment on behalf of the city. Restoring the connection of the west and east sides of the trail would allow the trail to perform to its maximum potential.



Source: Escondido Creek Design Team

Figure 5.63 Civic Center Shopping Plaza

The Creekfront site property encompasses two different property owners; one public owner and one private. Uniting interests and long term visions between the two owners will be crucial to meet the vision for the site.

Site Typology

The site typology for the Creekfront is a central district. A central district is an urban setting with a mix of civic, commercial, residential, and recreational uses at the heart of the city.

Creekwalk Destination: The Creekfront

Focused Opportunity

The Escondido Creek Trail provides a safe, separated path through the center of Escondido from east to west; however, when the trail arrives at the heart of the city at Grape Day Park, its course is interrupted for a three block span—a crucial breach of connectivity. In addition to the trail connectivity issue, challenges regarding the tenuous connection between the park and the shopping plaza, and disconnect with the creek also exist. For these reasons, the Focused Opportunity at the Creekfront will spotlight reestablishing and improving connections along the trail, between Grape Day Park and the Civic Center Plaza, and restoring the connection to the Escondido Creek.

Goal

The recent approval of the Marriot Hotel planned to be built next to City Hall promises to increase the number of visitors to the Grape Day Park and downtown area—a section of town that has undergone significant transformation in recent years. However, the five-lane Escondido Boulevard serves as a divisive boundary between two downtown draws: Grape Day Park and the Civic Center Plaza. Bringing these two sites into closer union will create a dynamic central destination and improve pedestrian circulation between the sites. The goal for The Creekfront is to unite the cultural amenities in Grape Day Park with the shopping and entertainment attractions in Civic Center Plaza by linking the Escondido Creek Trail and opening access to the creek corridor. The united park and plaza will result in a multi-faceted attraction offering a diverse package of civic, cultural, entertainment, dining, living, and employment options.

The Creekfront: Two Destinations in One

The united design for The Creekfront was achieved by addressing the two design sites as one but with a tailored approach appropriate for the two distinct areas—one for the Grape Day Park and civic area, and the other for Civic Center Plaza. The two sites represent two facets of The Creekfront: The Creekfront Park and The Creekfront District.

The Creekfront Park is the area along the creek between Broadway and Escondido Boulevard. Design responses for The Creekfront Park take into consideration Grape Day Park, City Hall, and the local cultural attractions and propose solutions appropriate to the recreational and civic setting.

The Creekfront District is the block along the creek between Escondido Boulevard and Centre



Figure 5.64 Historic Creek Alignment Walkway at The Creekfront Park

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekfront



Figure 5.65 The Creekfront Design Plan

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekfront

City Parkway. The goal of the Creekfront District is to create a cohesive urban living environment connecting residents and visitors to entertainment, dining, shopping, living, and workplace environments. Design responses for The Creekfront District propose

solutions for a mixed-use development in which to live, work, and play.

Design solutions for The Creekfront have been divided into the two sections in this document to facilitate the presentation of the solutions. The following

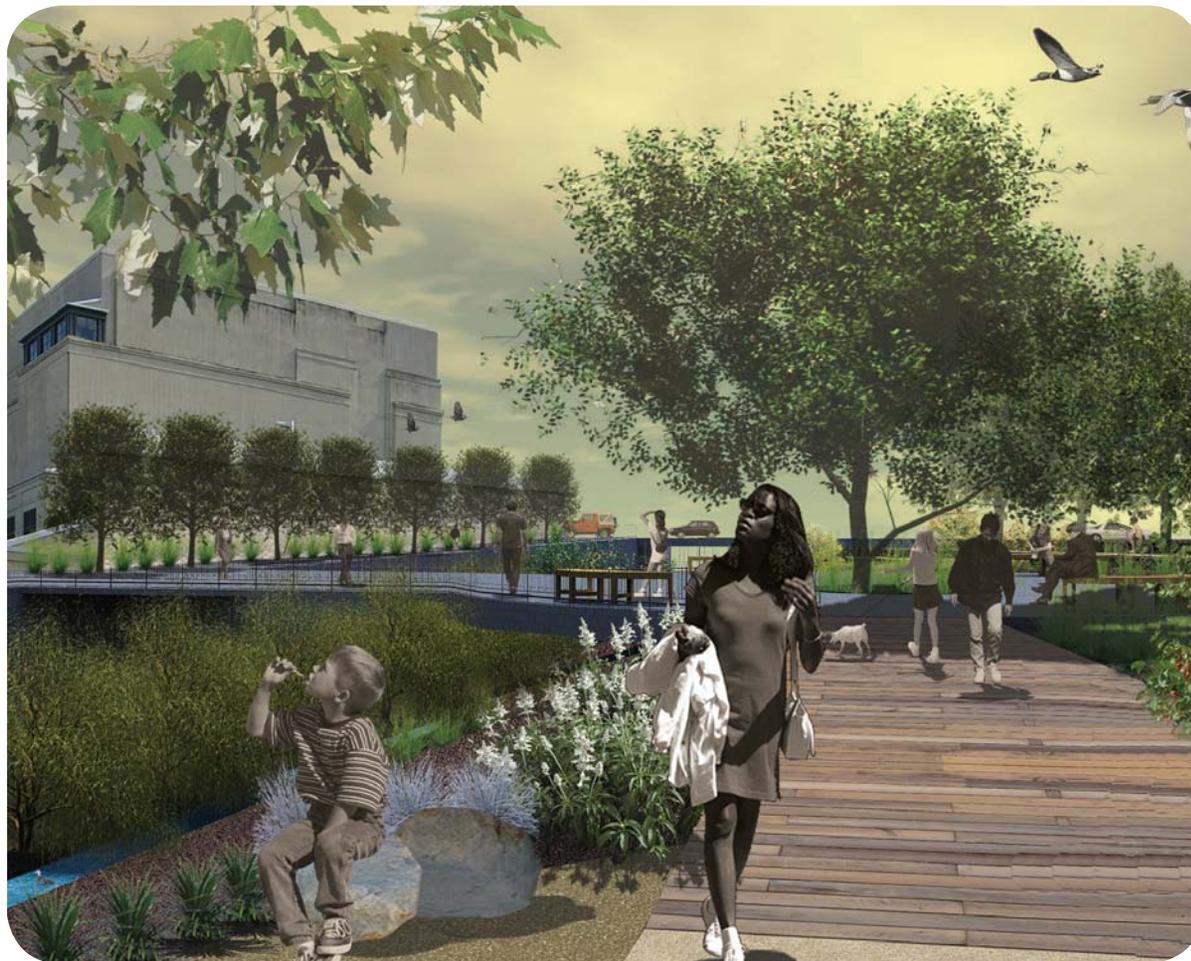
pages will review the design proposals for The Creekfront Park first, followed by proposals for The Creekfront District.

The Creekfront Park Design Response

Before the Escondido Creek was channelized in the late 1960's, it once flowed unconstrained through Grape Day Park. Due to issues of flooding, the creek has been channelized and confined to a forgotten edge of the park. The vision for The Creekfront Park plans to restore the creek's prominence in the park by opening the creek channel (see figure 5.70 on creek modification).

Opening the creek corridor will reinstate hydrologic function, allow for vegetation growth, improved flood capacity and water cleansing, provide for wildlife, and allow the banks of the creek to once again become a vibrant and lively feature within the park.

Some highlighted features of The Creekfront Park include a channel modification on the west side of Broadway to encourage creek engagement, extending the Escondido Creek Trail through and beyond Grape Day Park from Broadway to Escondido Boulevard, and a special separated bike trail bypass for fast speed cyclists on the north side of the creek. The channel modification is made possible by repurposing a portion of the underutilized parking lot area north of the park. A pedestrian trail along the creek allows visitors to enjoy creek views and the bike trail continues and crosses safely at Escondido Boulevard. Modifying the channel at these two points allows for increased access to, engagement with, and enjoyment of the creek for visitors and residents.



Source: Escondido Creek Design Team

Figure 5.66 Design Implementation at The Creekfront

Creekwalk Destination: The Creekfront



LEGEND:

- 1 Train Depot
- 2 Open Recreation Space
- 3 Performance Stage
- 4 Rose Courtyard
- 5 The Arroyo Walk
- 6 Orange Grove
- 7 Native Grass Meadow
- 8 Sculpture Garden
- 9 Bridge
- 10 Grape Vines
- 11 Oak Trees w/Mounds
- 12 Market Space
- 13 Cactus Garden
- 14 Streetscape w/Divided Bike + Pedestrian Paths
- 15 Creek Channel
- 16 Meandering Stream Trail
- 17 Bike Path
- 18 Water/Vine Play Space
- 19 Entrance Point w/Deck + Water Feature
- 20 Large Deck w/Seating
- 21 Pedestrian Path w/Rest Stops
- 22 Safe Crosswalks

Figure 5.67 The Creekfront Park Design Plan

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekfront

It also allows for urban and stormwater runoff infiltration and cleansing while providing habitat for plants and animals.

On the west side of Broadway, where the creek meets the street, a new focal entry point draws visitors into the newly designed Grape Day Park. Signage welcomes visitors and gives information on the

creek and the park (see figure 5.68). Near the entrance, a deck overlooks the creek. Seating is provided to view the restored creek channel, providing a unique perspective from the park to the creek. Realigned park paths meander through the park for strolling and are designed to facilitate circulation to City Hall and the various cultural amenities. A unique design in the paving of the path represents the historic alignment

of the Escondido Creek prior to channelization (see figure 5.64). The redesigned park paths connect the park attractions with one another and increase awareness of the historic features within the park.

A stage near City Hall provides a central point for performances, activities, meetings, and gathering space. The expanse of various drought tolerant

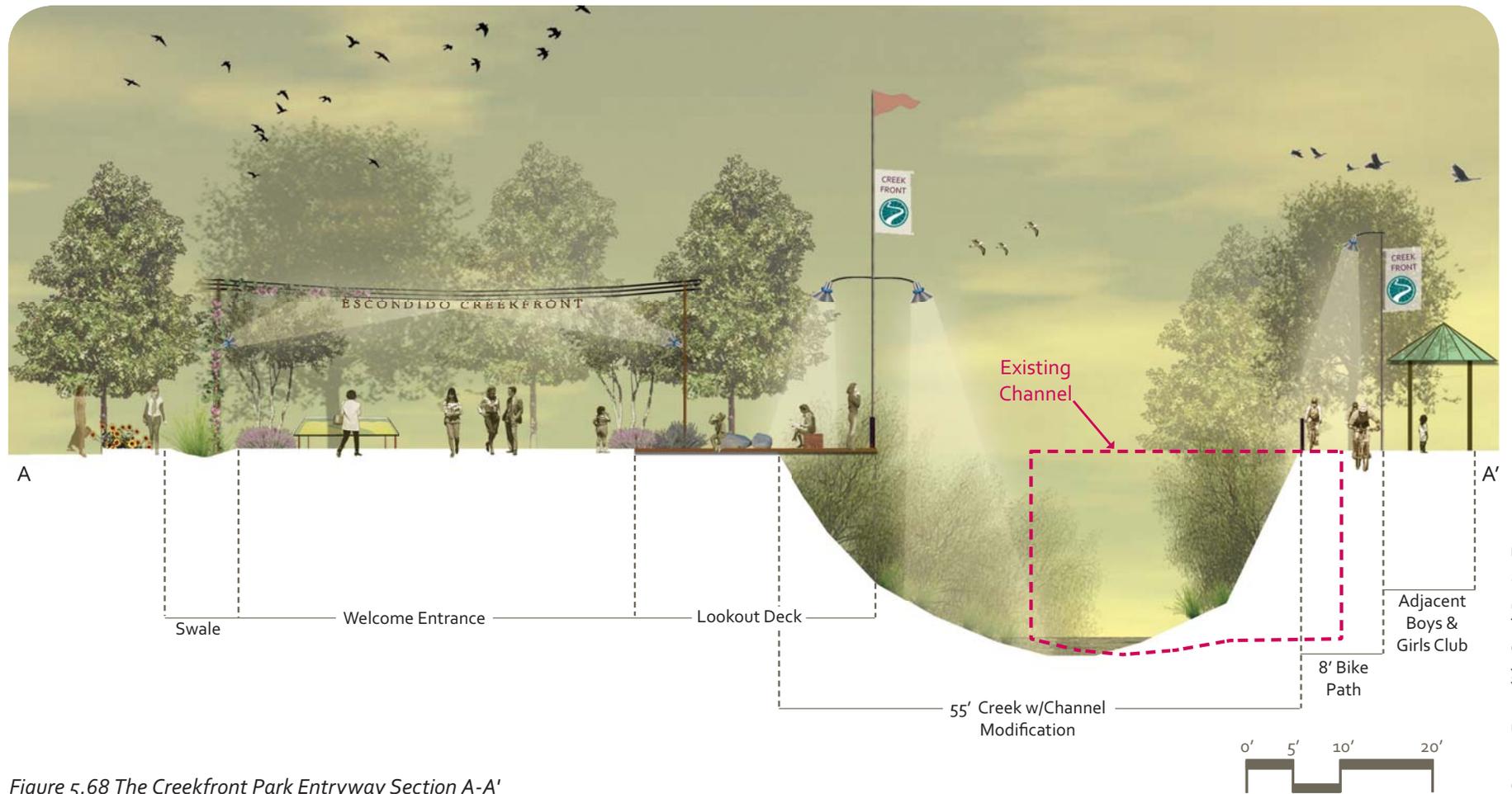


Figure 5.68 The Creekfront Park Entryway Section A-A'

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekfront

turf grasses allows a comfortable space to view a performance or play an informal game of tag at times when the stage is not in use. The trail that runs northeast to southwest along City Hall and adjacent to the stage features a cactus and succulent rock garden. This garden provides clear views to and from City Hall and a place to admire plants which thrive in a hot and dry climate.

In a nod to the origins of Grape Day Park and its role in celebrating the historic harvest, the redesigned Grape Day Park also features a grape vine grove, situated by the orange grove, to provide historic context. In addition, a dry arroyo (creek) walk meanders through the native grasses east of the grape vines. A courtyard adjacent to the theater allows show-goers a place to sit and stroll or admire the fruit while waiting for a performance to start in a semi-private, exquisite setting.

The Creekfront Park Benefits

The benefits of The Creekfront Park include reestablishing the historic connection between Grape Day Park. The Escondido Creek channel modification allows for connection of the Escondido Creek Trail through the park, opens the channel to access, improves pedestrian circulation between Grape Day Park and Civic Center Plaza, helps to mitigate stormwater run-off and cleanse the creek water, and reintroduces habitat to the creek. Through the re-envisioned Grape Day Park, The Creekfront Park reestablishes an awareness of the Escondido Creek, presently confined by the box channel, and restores the historic relationship between the creek and Grape Day Park.

Cheonggyecheon River Park

Cheonggyecheon is a 3 ½ mile long restored urban creek which runs west to east through downtown Seoul, South Korea. The creek, which was previously covered by transportation infrastructure, was restored as the focal point to a vibrant civic open space. Since reopening in 2005, Cheonggyecheon has become a popular destination attracting locals and tourists (Cheonggyecheon 2010).

Cheonggyecheon was paved over with a 3 ½ mile long, 53' wide elevated highway after the Korean War, to accommodate the increase of population in downtown Seoul (Cheonggyecheon 2010). In 2003 the city of Seoul began a restoration effort to remove the highway, open the creek corridor, and revitalize the downtown area.

During the modernization era, as a result of the transportation corridor, downtown Seoul was literally separated into a north and south zone. The restoration helped to reunite these two zones into one and created a new urban infrastructure. This revitalized area provides a destination which connects the cultural assets of downtown Seoul with the environmental resources of the stream.

Beyond reuniting the two sides of Seoul, the restored stream also reduces urban heat island effect in the city by cooling down the air temperature in the nearby areas by 38°F on average (Lee 2005). The creek restoration has also resulted in reducing the number of

vehicles entering downtown Seoul by 2.3%, while increasing the number of commuters using buses and the subway by 1.4% and 4.3%, respectively (Lee 2005). This change in commuting patterns has meant a significant reduction in air pollution, with measured amounts of small particulates dropping from 74 to 48 micrograms per three cubic feet (Lee 2005).

In addition, restoring water to the creek has brought back many species of fish, insects and birds not present for the past 40 years (Stein 2009). Prior to restoration six bird species and 15 insect species were commonly found in the downtown area, after the restoration 36 different bird species, and 192 different insect species are commonly found along the stream (Stein 2009).



Source: Cheonggyecheon Official Website

Figure 5.69 Cheonggyecheon River Park

Creekwalk Destination: The Creekfront

Channel Modification

Figure 5.70 illustrates the newly designed modified channel capable of accommodating both human use during low flow periods and a 100 year storm event. The red box indicates the existing creek channel and the blue dashed

line shows the flow height of the 100 year storm event. The willows, turf, and concrete were calculated to accommodate the 100 year storm event while also restoring a riparian habitat allowing visitors to interact and view plants and

wildlife. A swale at the top most portion of the modified channel allows filtration of the parking lot run-off before it enters the creek.

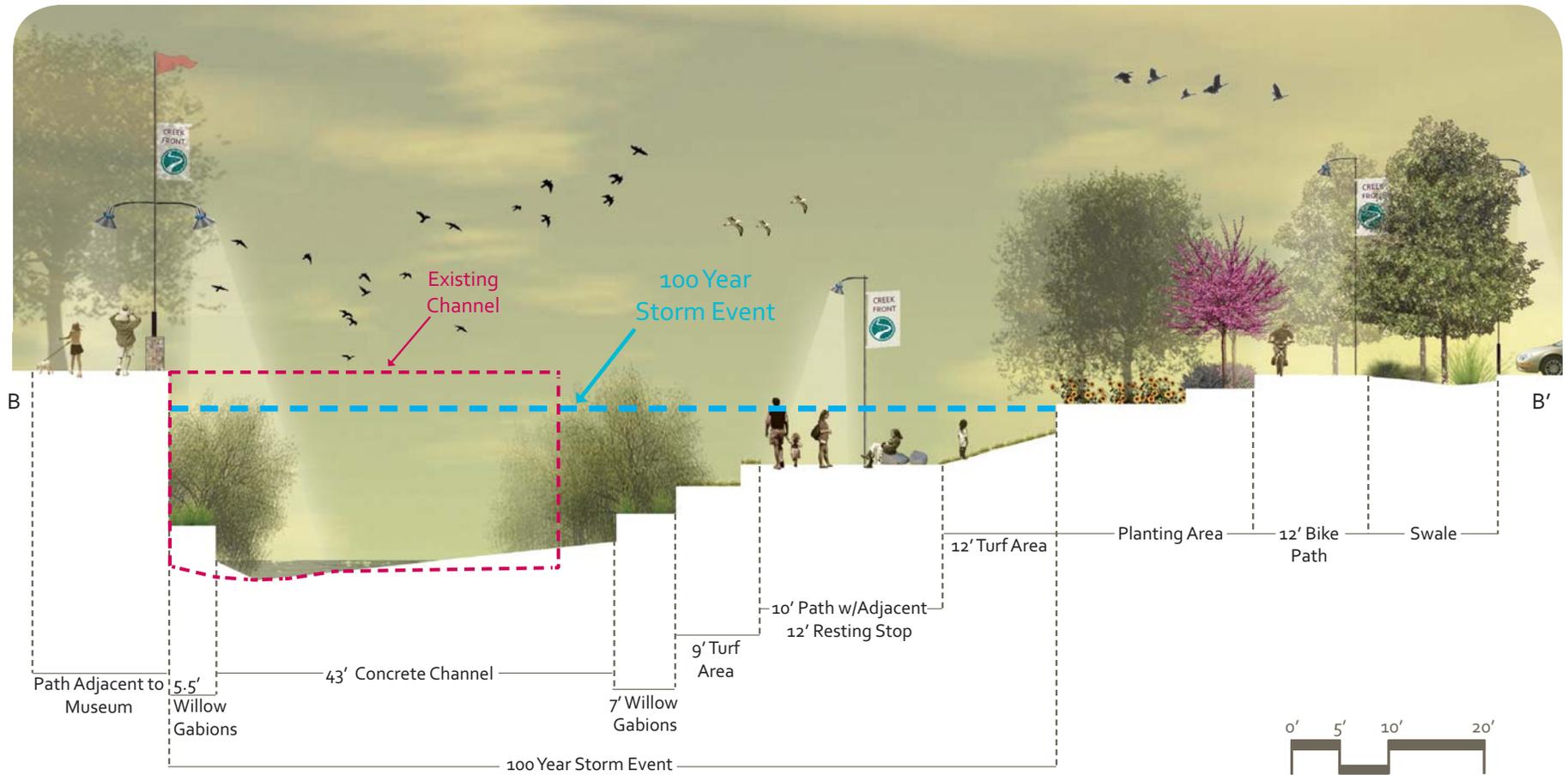


Figure 5.70 Modified Channel Section B-B' at The Creekfront Park

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekfront



Figure 5.71 The Creekfront Park Framework Location Map

BRIDGE

The site *Bridges* by restoring a connection to the creek and adding a trail that continues through the park.

COLLECT

The site *Collects* by providing a gathering space within the modified creek channel.

DISCOVER

The site *Discovers* by revealing the historic creek alignment with the pathway through the park.

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekfront



Source: Escondido Creek Design Team

Figure 5.72 Mixed-use at The Creekfront District

The Creekfront District Design Response

Building on the current land use of the site and its central location, The Creekfront District is envisioned as a vibrant, bustling creek-oriented destination offering a mix of residential, entertainment, commercial, and employment options to residents and visitors alike. A central feature to the long-term design for The Creekfront District is the open and restored creek corridor and the Creekfront lake at the heart of the site.

Presently, the Escondido Creek channel runs through the center of the Civic Center Plaza but is hidden from view in a culvert beneath the parking lot. The

Creekfront proposes, through a series of phases, to open the creek channel, restoring it as a central focal point of The Creekfront District. By “daylighting”, or opening the channel, the Missing Link of the Escondido Creek Trail can be connected providing continuous linkage from the far eastern side of Escondido to the western side along one seamless trail. In addition, the open and modified channel will help mitigate stormwater pollutants and provide habitat.

Adjacent to the restored creek corridor is The Creekfront lake (see figure 5.73). The lake serves as an urban wetland and central attraction to The Creekfront District. Shops and buildings orient around the lake and it provides recreational activities such as bird

watching. The lake features small islands which provide habitat for birds and other wildlife and allows for stormwater runoff infiltration and cleansing of the creek flows. Along the lakefront, restaurants and seating areas allow visitors to enjoy the beautiful scenery of the lake. A small amphitheatre (figure 5.77) hosts performances or creates a spot for friends to meet while visiting The Creekfront District.

As demonstrated in the section drawing (figure 5.75), the lake is separated from the creek channel so a fluctuation of water level of the creek, due to storm events, will not affect the water level within the lake. A dam at the west end of the lake controls the water level within the lake and the creek channel. Most of the water within the lake will be collected from the Escondido Creek.

Some highlighted features of The Creekfront District include a bike trail bypass along the north side of the creek which directly connects The Creekfront to the east and west segments of the Escondido Trail. The bike trail bypass is separated from the pedestrian trail of The Creekfront to improve site scale circulation and provide safety for the different visitors. This important linkage will connect Grape Day Park and the east side of the city with the Transit Center and the west side of the city and will significantly improve non-motorized mobility within the City of Escondido.

An information booth located next to the lake provides visitors with information about the ecology and wildlife within the lake. References to the lake and the Escondido Creek are placed

Creekwalk Destination: The Creekfront



Source: Escondido Creek Design Team

Figure 5.73 The Creekfront District Lake & Boardwalk

Creekwalk Destination: The Creekfront

throughout the site in the landscape forms of grass mounds and dry creek swales (see figure 5.76). The swales also treat stormwater before the water drains into the lake.

Other features proposed for the Creekfront District are mixed-use housing and retail, commercial and business buildings and a sub-grade parking garage. The mixed-use development can celebrate transit-oriented design. With the Transit Center one block west, employees can easily commute by bus or train while the site eliminates commutes for residents of The Creekfront District. The Creekfront District contributes a diversity of options for residents, supports local businesses, attracts additional customers to downtown, and offers a variety of housing choices.

LEGEND:

- | | |
|---------------------------|--------------------|
| 1 Amphitheatre | 10 Mixed Use |
| 2 Bike Trail | 11 Outdoor Seating |
| 3 Boardwalk | 12 Pond |
| 4 Commercial & Businesses | 13 Public Garage |
| 5 Creek Channel | 14 Swale |
| 6 Dock | 15 Wetland |
| 7 Dry Creek | |
| 8 Information Center | |
| 9 Lookout Deck | |



Figure 5.74 The Creekfront District Design Plan

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekfront

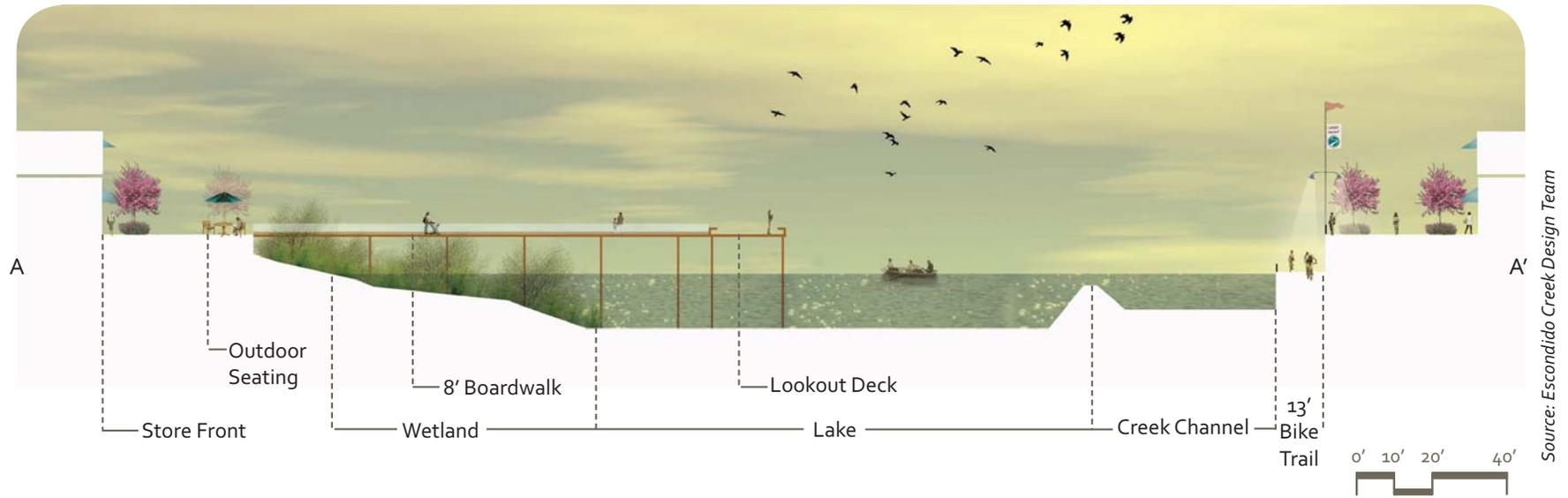


Figure 5.75 The Creekfront District Lake Section A-A'

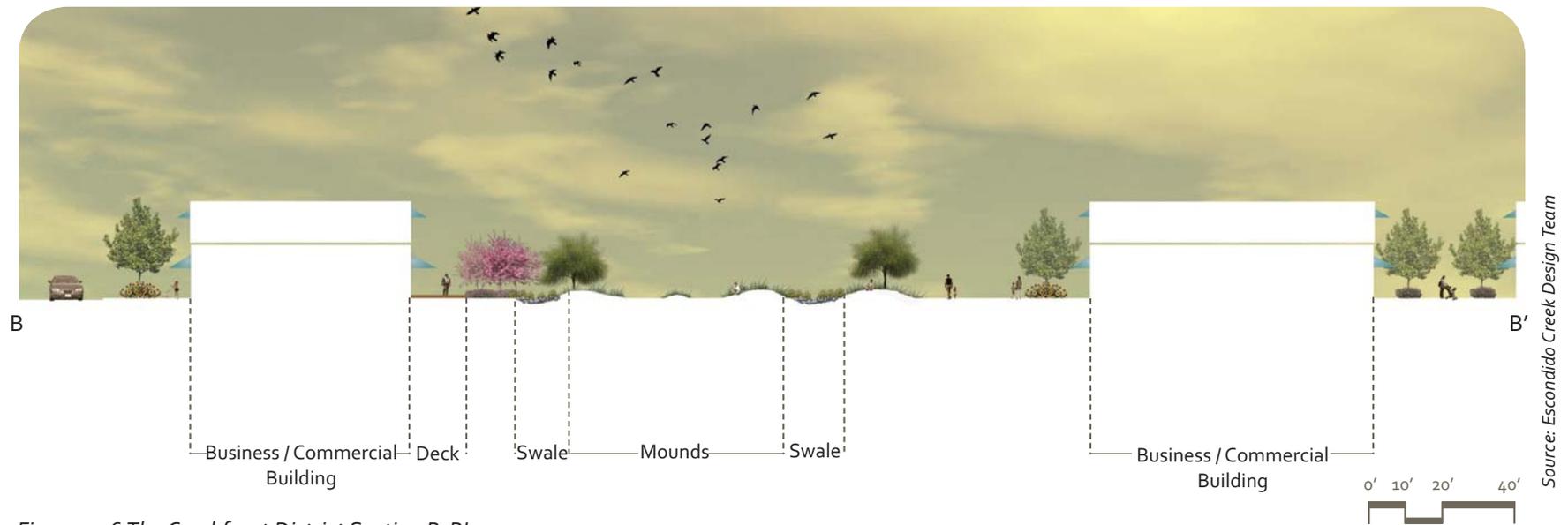


Figure 5.76 The Creekfront District Section B-B'

Creekwalk Destination: The Creekfront



Source: Escondido Creek Design Team

The Creekfront District Benefits

The benefits of the Creekfront design include connecting the missing linkages of the Escondido Creek Trail, revitalizing the downtown area which draws visitors and residents into the city center, generating tax revenues for the City, and creating an awareness of the Escondido Creek. Additional benefits include providing a centralized urban living space which reduces dependency on automobiles in the city, improving non-motorized transportation options for Escondidans and visitors to the city, mitigating stormwater and urban runoff, and providing a place for wildlife and habitat within the urban core of the city.

The Creekfront Implementation Strategy

The Creekfront can convert from vision to reality through a series of improvements. Though the overall vision is grand in scale, change can begin at the sites immediately.

Figure 5.77 The Creekfront District Mixed-use Development

Mixed-use Development

Mixed-use development refers to a land development project in which a mix of uses, such as residential, retail, commercial, civic and entertainment, are in close proximity or in the same building as other uses. Mixed-use development allows easy and convenient access between work, home and other and services by allowing walking and cycling to become a convenient and practical means

of travel (Municipal Research and Service Center of Washington 2009). This reduction in auto dependency can greatly benefit the surrounding communities by reducing roadway congestion and air pollution caused by automobiles. In addition, mixed-use development can add vitality and interest for residents, and a variety of housing choices. Other benefits of developing mixed use projects

include the preservation of undeveloped or environmentally sensitive land elsewhere in the community through the reduction of sprawl, the promotion of efficient use of land and infrastructure, and an enhanced sense of community (MRSCW 2009).

Creekwalk Destination: The Creekfront



Source: Escondido Creek Design Team

Figure 5.78 Existing Conditions at Civic Center Plaza

An important early step in implementation is addressing the Missing Link in the Escondido Creek Trail. The longer term goal is to open the creek, currently hidden beneath the parking lot, and provide a connection between Broadway and Center City Parkway via the restored creek channel. This goal is a longer term prospect. However, a nearer term solution would be to provide a passageway through the buildings of the existing shopping mall—a far less expensive endeavor.

An early phase of the route can be oriented from the east side of Broadway up to Woodward Avenue, over to Escondido Boulevard, along the current concrete culvert cap of the Escondido Creek, through the shopping mall passageway, and out to Center City Parkway (see figure 5.80). At Center City Parkway, trail users will encounter a pedestrian activated light to provide safe crossing of the highway. A trail extension will then connect users to the existing western trail segment starting at Quince Street near the Escondido Transit Center.



Source: Escondido Creek Design Team

Figure 5.79 Civic Center Shopping Plaza Short-term Design

The City can partner with the Civic Center Plaza to build an early phase bike trail on top of the existing creek culvert joining Grape Day Park to the Transit Center. The trail could be marked with colored concrete and mosaic tiles illustrating a creek pattern as a means for indicating the Escondido Creek flowing beneath the concrete culvert (see figure 5.79). By connecting to the Escondido Transit Center, the trail improvements stand to greatly increase the number of people able to visit The Creekfront, Grape Day Park and downtown Escondido.

Longer term developments of The Creekfront vision will include trail improvements to Grape Day Park, building a park entrance, channel modification between the Creekfront Park and District, constructing the lake, and building the mixed-use development and parking garages. To illustrate how The Creekfront may be achieved, figure 5.81 illustrates how the site will go through a series of changes. One possible trajectory may mirror the following:

- The passageway will be constructed for the proposed bike trail (see figure 5.81 - Phase 1).

Creekwalk Destination: The Creekfront

- The channel will be opened and modified at Grape Day Park and Civic Center Plaza (see figure 5.81-Phase 2).
 - The lake will be added with new commercial/business buildings facing the lake. A parking garage will be constructed at the southwest side of the Creekfront District to replace the parking spaces lost to the lake (see figure 5.81 - Phase 3).
 - Additional commercial, retail and residential buildings will be constructed in the remaining open areas of the site (see figure 5.81 - Phase 4).
 - The remaining existing buildings will be replaced with mixed use housing and retail (see figure 5.81-Final Design Phase).
- The above trajectory is just one example. No doubt a myriad of implementation strategies can be followed

to fulfill the full vision for The Creekfront and the strategy can be tailored to the needs of the city.

The full manifestation of the vision will result in 330,000 square feet of retail space. For reference, this is approximately the size of two Target box stores and 100-150 small retail stores (calculation based on retail size information from San Lorenzon Express 2010). In addition, there will be approximately 130,000 square feet of office space and 77,000 square feet of housing space—the equivalent of five to seven hundred housing units. Building heights will vary with several of the retail and residential buildings reaching at least four stories in height. **

**The calculated retail, business and housing spaces are an estimation based on a conceptual design. The numbers may vary depending on the final design and implementation.

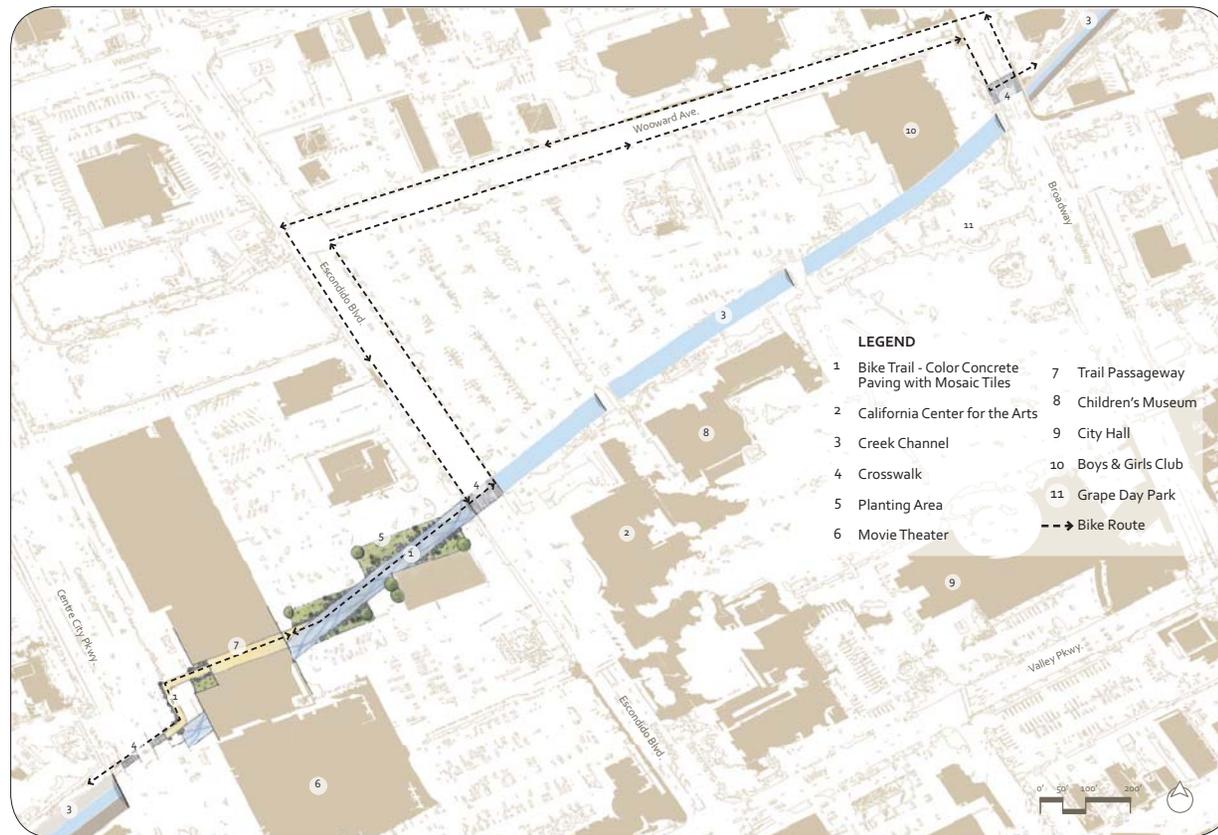


Figure 5.80 The Creekfront Short-term Design Plan

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekfront

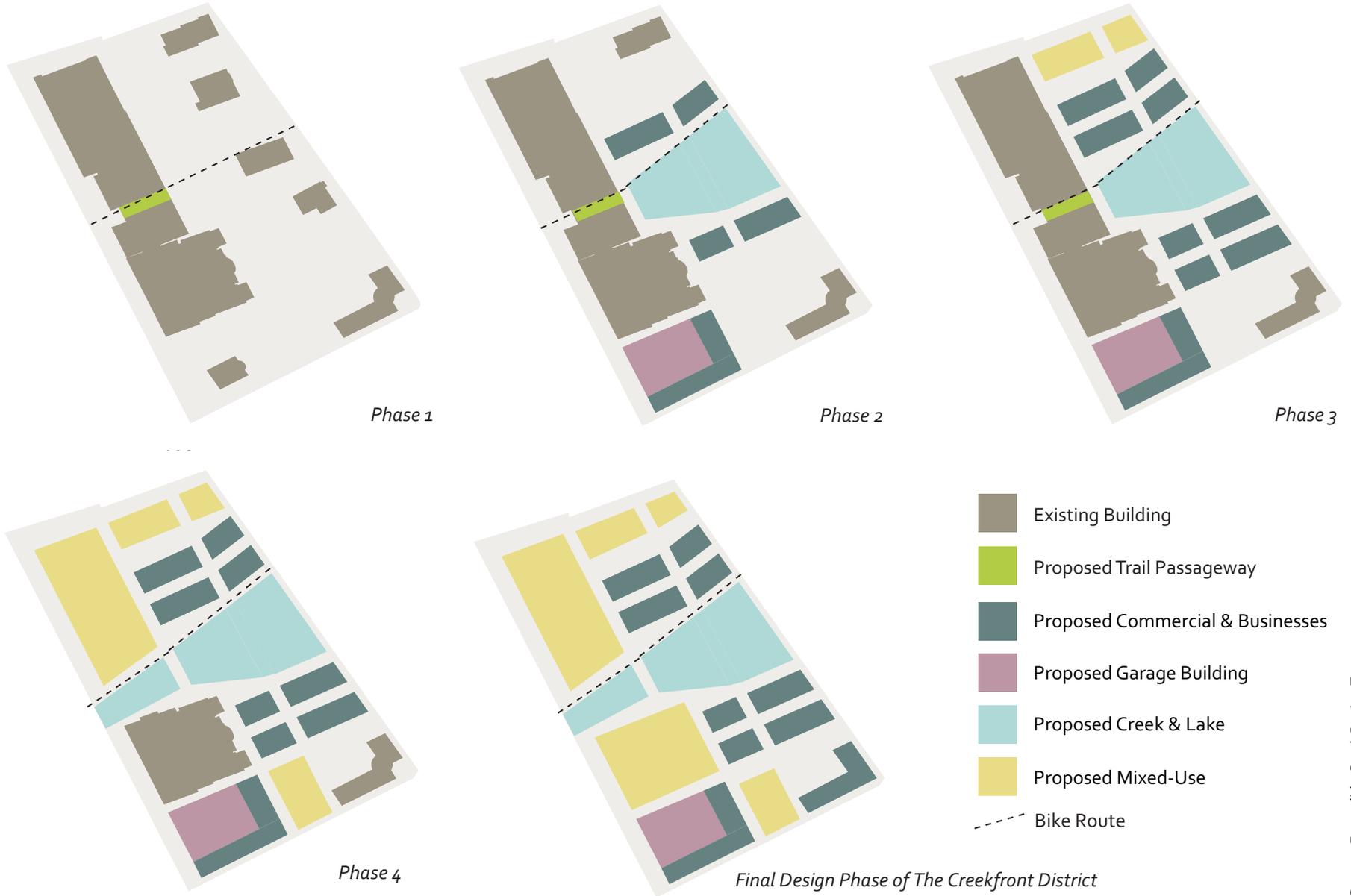


Figure 5.81 The Creekfront Phasing Plan

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekfront

San Antonio River Walk Case Study

The San Antonio River Walk, well known today, emerged from a series of developments spanning over five decades. The plan was initiated with a 1921 flood killing 50 people and causing major damage to buildings, which triggered the sequence of changes along the river (Paseo del Rio Association 2010).

After the flood, plans were drafted to build a flood control channel to straighten the meandering river and keep it under control. However, the plan called for controlling the entire Paseo del Rio with concrete channel walls. The community was outraged. Amidst the resulting conflict, the San Antonio Conservation Society was formed. The horseshoe bend in the river was saved by modifying the plans and adding an upstream dam and a downstream floodgate (PRA 2010). In 1929 work on the channel was complete.

In the early 1960's the riverfront had become plagued by crime (PRA 2010). Concerns in the community arose and locals were looking to upgrade the River Walk's image by converting it into an attractive destination reflecting the history of San Antonio with tourism as a central component. In 1960, a tourist committee hired a team of planners to create control ordinances which resulted in the Paseo del Rio



Source: Zereshtk

Figure 5.82 San Antonio River Walk

Master Plan. This plan protected the River Walk from over-commercialization. The Paseo del Rio Association was created to oversee further development and promotion of the River Walk. In 1964, a \$30 million budget was approved for improvements to the downtown river bend (PRA 2010). Improvements made in 1968, as San Antonio hosted its own World Fair, brought the project to its current state as a new Convention Center was built along the river with a linkage to the festivities.

The River Walk has been through many transformations since its major flood but now it is one of the most successful and well known

river walks in the country. Visitors describe it as clean, beautifully landscaped, and safe, even at night. Over 40 restaurants, shops, and hotels dot the river's edge and recreational and entertainment spots attract locals and tourists alike (PRA 2010). The success of San Antonio's River Walk can be attributed to the dedication the community had to the vision for the River Walk. This same commitment has been reflected in the many community members who have voiced support for envisioning a new Escondido Creek and Trail. The approach used at the River Walk to revitalization the waterfront serves as a model inspiration for The Creekfront District along The Creekwalk.

Creekwalk Destination: The Creekfront

BRIDGE

The site *Bridges* by connecting people to the waterfront and local businesses, and linking the trail from Grape Day Park to the Transit Center.

COLLECT

The site *Collects* by creating a central hub, bringing people to the shopping center, and creating a riparian habitat

DISCOVER

The site *Discovers* by providing living, commercial, entertainment, and recreational elements, raising awareness of the creek, and educating visitors on local ecology.



Figure 5.83 The Creekfront District Framework Location Map

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekcross

Existing Conditions

The Creekcross is located at the Escondido Transit Center, immediately south of the Escondido Creek corridor. The Creekcross site makes use of a portion of the Transit Center—largely using the underutilized portion of the western transit center parking lot. (The parking lots total 3.33 acres, 20% of the greater Transit Center site.) The Escondido Creek Trail runs through the site, south of the Escondido Creek.

The Creekcross site is a crossroads; it is the confluence of Reidy Creek and the Escondido Creek, the Inland Rail Trail, a major hub for regional and local bus lines, and the final stop for the Sprinter regional commuter train (see figure 5.84). The industrial and commercial land uses surrounding the site date back to early Escondido and the extension of the Santa Fe train line into the City. The historic end of the Santa Fe line extension is roughly 475 yards from the site. The original train depot building has been relocated and is open for touring in Grape Day Park.

The Transit Center (figure 5.85) services the Sprinter light rail, Greyhound, and San Diego Metropolitan Transit and North County Transit buses. The Creekcross site is owned by the North County Transit District. The proposed site includes 6 of the 16.5 acre Transit Center site.

Site Opportunities

The area near The Creekcross has a long legacy of commercial and industrial land uses. Historically the nearby Santa Fe Train line attracted commerce and industry to the area as businesspeople were looking for convenient access to the trains for the movement of goods. Today, those same tracks raise

the desirability of the neighborhood because of access to alternative transportation.

A myriad of development possibilities have been emerging for various parcels near The Creekcross. The city yards property north of The Creekcross has received a lot of recent attention. The site has been considered for the construction of a bio-tech formulation plant, a football stadium, and a ball park. Though plans for this site are still pending, undoubtedly this property will be developed in the near future.

The former and vacant police station south of The Creekcross represents another development opportunity. Just across the street from the Transit Center, the site is primed to retrofit the building for a transit oriented development project (see figure 5.84). Partnering closely with potential developers will be crucial to implementation efforts of The Creekcross. Exactions and development agreements may also pose an opportunity to make improvements to the creek and trail near the site.

Developments near The Creekcross will stand to impact the downstream watershed. Designing solutions for

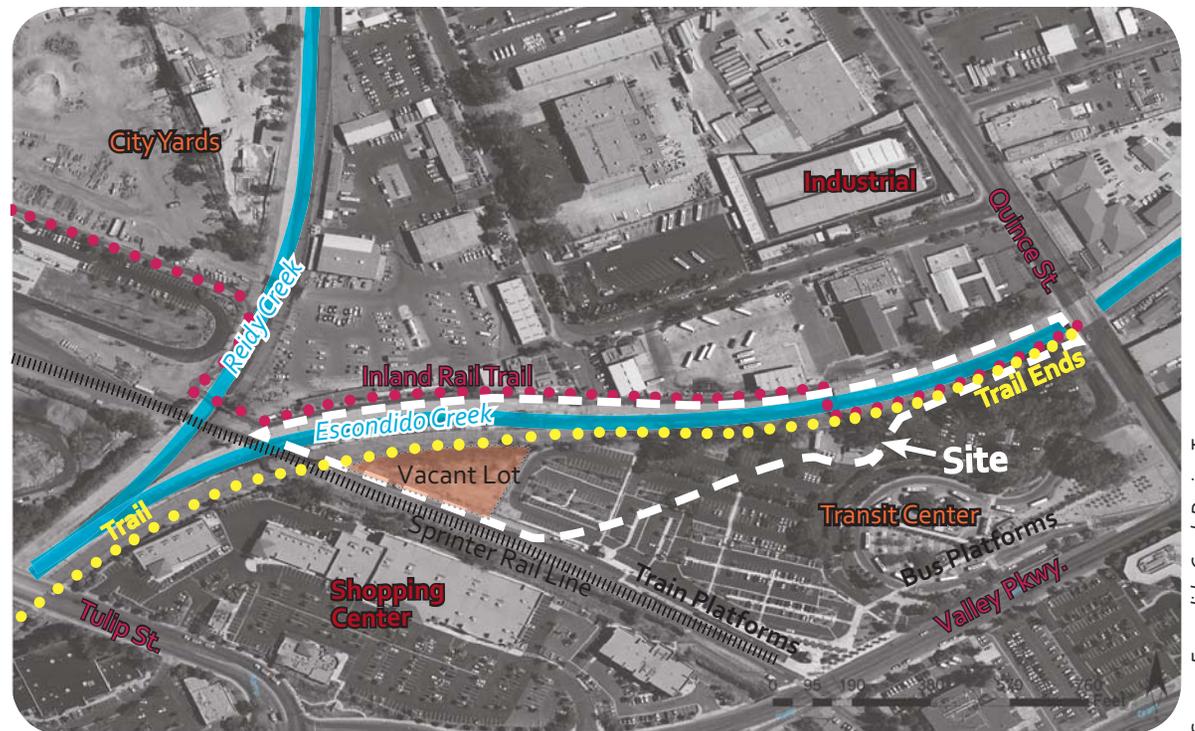


Figure 5.84 The Creekcross Location Map

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekcross



Source: Escondido Creek Design Team

Figure 5.85 Escondido Transit Center

mitigating run-off pollution is an opportunity at this site. Stormwater mitigation designs, such as the use of wetlands, can have the added benefit of creating a desirable space for humans.

Whether it is an employment center or a sports field that is finally built at these sites, designing attractive

and engaging spaces for people to enjoy Escondido's outdoor assets will increase the desirability of these parcels to businesses looking to relocate near the Escondido Transit Center. Mitigating for stormwater pollution while providing open space opportunities and improving access to the Escondido Creek Trail are exciting opportunities for this site.

Site Constraints

The site is bound at its perimeter by the train tracks to the west and the creek channel to the north. The central and eastern portion of the site is committed to transit facilities.

Challenges presented by the existing conditions at the site stem from the decentralized layout of the Transit Center. The train platform is located far from the bus stalls and the core of the facility (see figure 5.84). Some passengers must walk over 1000 feet to make connections between the train and distant bus platforms. With narrow windows between the arrival and departure for many passengers, the expansive design poses challenges for providing convenient and immediate access to The Creekcross for commuters with hectic schedules. Long distance travelers, such as Greyhound passengers, who typically have a longer wait time between connections, may be more likely users of the site.

The Creekcross site boundary lies over a portion of three separate parcels (the entire Transit Center is comprised of 8 parcels). Ownership of the parcels is held by North County Transit District (NCTD) and various easements and covenants control the use of the property. Implementing design solutions will require partnering with the NCTD and working with the easement restrictions. If easements prove too problematic or partnering with the NCTD is not possible, applying the design concept of The Creekcross to another parcel nearby and adjacent to the creek may prove a desirable implementation solution.

Creekwalk Destination: The Creekcross



Source: Escondido Creek Design Team

Figure 5.86 Bike Trail at Transit Center

Site Typology

The Creekcross site represents a unique industrial crossroads typology. The site is centered in a mix of industrial, commercial, and residential land uses. Positioned at the Escondido's public transit hub, near Interstate 15, and at the confluence of Escondido and Reidy Creek, this area is a crossroads witnessing the movement of people, water, and goods. Several sites similar to The Creekcross typology are nearby—design solutions posed at this site may be applied to these other industrial crossroads sites within this industrial/commercial area of west Escondido. Adjusting the location of the design solutions for The Creekcross to the parcel just north of the creek at the confluence is also a possibility.

Focused Opportunity

Pollution from commercial and industrial uses includes chemicals, solvents, machinery fluid, motor oil and waste water from production processes. Surface run-off from industrial and commercial sites, such as during a storm event, washes these pollutants into storm drains which empty into the Escondido Creek. These pollutants degrade the water of the creek, lagoon, and ocean and impact downstream habitat.

The buses and autos arriving at the Transit Center and land uses surrounding The Creekcross are a source of polluted runoff that drains directly into the Escondido Creek. The vacant lot and parking lot area can be transform into a stormwater filtration area, which poses an opportunity to treat and cleanse the runoff before it enters the creek. The focused opportunity for The Creekcross is run-off mitigation.

Goal

The goal of the Creekcross is to improve water quality, increase habitat and provide an intriguing stop for trail users or passengers awaiting transit connections. Objectives to achieving these goals include mitigating polluted urban stormwater runoff, recharging ground water, and providing open space mutually attractive to humans and wildlife.

Design Response

The central feature of The Creekcross is the constructed wetlands. The wetlands purify the stormwater runoff from the Transit Center and

surrounding neighborhoods, provide food and habitat for waterfowl, and create a natural landscape for visitors to passively stroll and enjoy. In this inland location, the wetland functions as a meadow landscape, accommodating both periods of inundation and drought.

During the dry season or periods of reduced run-off, the wetland will become dry and golden. The beauty of the natural landscape, however, will not be lost as adapting to dry conditions is a natural function of the vegetation accustomed to meadow conditions. Vegetation adapted to the seasonal reduction in moisture is capable of and, in fact relies upon, the periodic dry conditions as part of the natural cycle. During these times, the vegetation in the wetland will grow golden signifying to visitors the seasonality of the local climate. Allowing for the seasonal fluctuation in color from green to gold and back is an important mechanism for educating visitors about the local climatic cycles of Escondido. The golden color may serve as a reminder that Escondidans live in an arid climate, with limited supply of water; when the wetland transitions from green to gold it is time to increase water conservation practices.

Woven through the wetland landscape is a series of boardwalks providing strolling, sitting, picnicking, and viewing options for visitors (see figure 5.90). The boardwalks create a unique transition experience and allow trail or park users to see the landscape at varying height levels (see figure 5.87).

Near to the wetland is the café located just north of the main Transit Center terminal. The café provides a space for commuters and trail users

Creekwalk Destination: The Creekcross



Source: Escondido Creek Design Team

Benefits

The Creekcross benefits both the local ecologic and human systems. By treating polluted urban and stormwater runoff, infiltrating groundwater, and creating wildlife habitat, The Creekcross improves local and downstream conditions. The Creekcross also meets the needs of the community by providing open space to a highly developed industrial neighborhood, by creating a unique rest area for commuters and travelers using the Transit Center, and by engaging visitors with the local ecology. It also add local features for the benefit of neighboring businesses, and improves access to the Escondido Trail and Creekwalk.

Implementation Strategy

Implementing The Creekcross vision can begin by constructing site assets targeting the needs of commuters and trail users, and then progress to implementing the larger scale ecologic improvements such as the wetland. Construction of the trail staging kiosk could serve as a first step and would benefit users of the Escondido Creekwalk and Trail. The café could follow, providing additional benefit to trail users and transit passengers. When resources and logistics have been secured, the full Creekcross vision can be implemented with the modification of the creek channel and the construction of the wetland.

Through careful collaboration with potential developers of adjacent parcels, implementation of The Creekcross vision may be achieved in a timelier manner than the current economic situation would allow. Implementation efforts

Figure 5.87 The Creekcross Boardwalk

to enjoy a beverage or a bite to eat as they view the scenery of the natural landscape. A trail staging area provides a place for visitors to learn about the local ecology and view maps detailing connections to the various trails emerging from the site.

The design solution modifies the existing creek channel allowing for a partial soft bottom. The soft

bottom accommodates the growth of willows and other riparian plants which provide waterfowl and wildlife a place to forage and inhabit. The riparian vegetation helps to cleanse the water, removing debris and bio-filtrating pollutants from urban run-off in the creek. The vegetation helps shade the stream, cooling the water and preventing algae blooms. The soft bottom also allows for groundwater recharge.

Creekwalk Destination: The Creekcross



Figure 5.88 The Creekcross Design Plan

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekcross

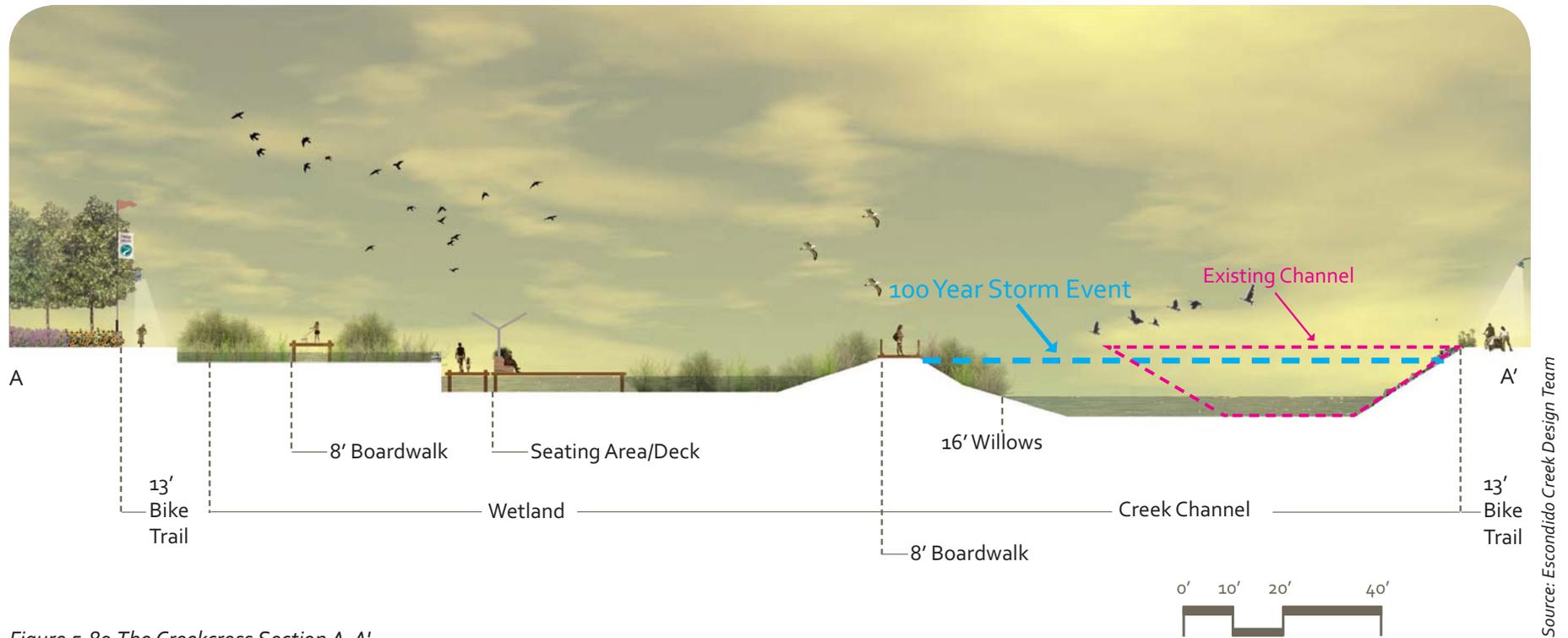


Figure 5.89 The Creekcross Section A-A'

will benefit from a flexible strategy; adjusting the location of The Creekcross wetland may be a consideration. An additional site to consider may include applying the Creekcross wetland design concept to the confluence of Reidy and Escondido Creek on a portion of the city yards property on the north bank of Escondido Creek.

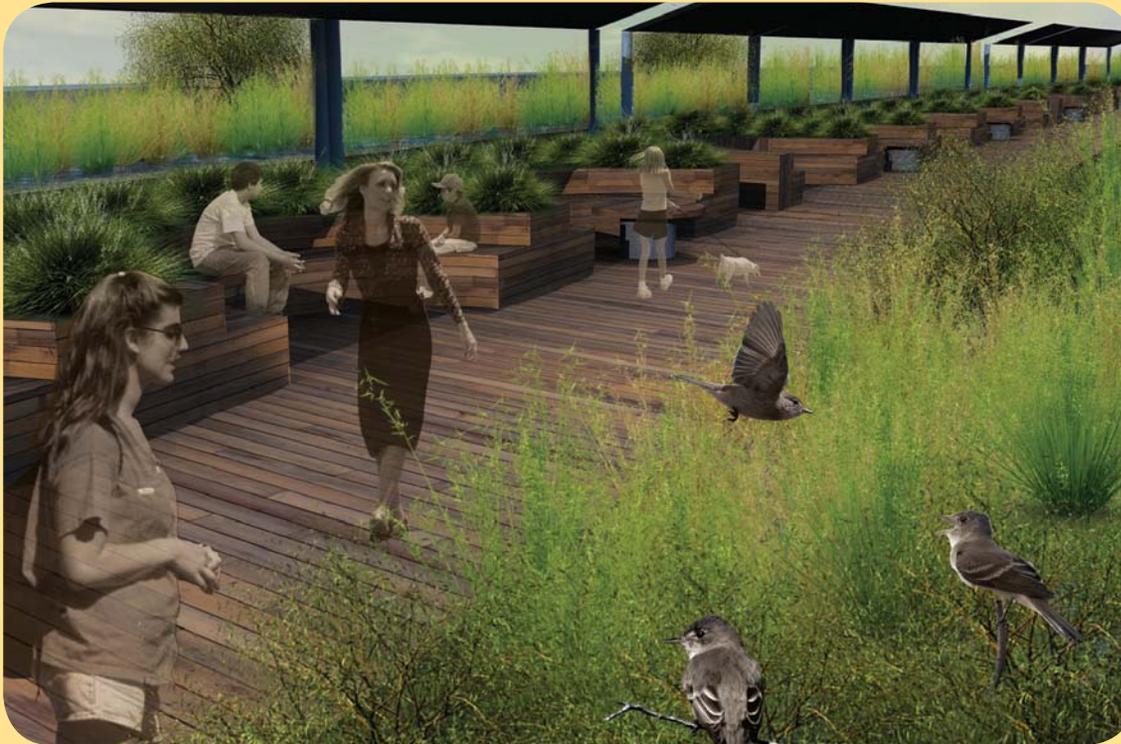
With this adaptation, trail access would be provided via the Inland Rail Trail. This approach could pair nicely with any of the development considerations proposed. A unique open space feature, the wetland would be beneficial to bio-tech employees seeking an outdoor lunch spot or sports enthusiasts relaxing in the park before the start of a game.

Channel Modification

Figure 5.89 shows the modified channel that accommodates a 100 year storm event. The red box indicates the existing creek channel and the blue dashed line shows the 100 year storm event. Calculations were made to ensure the channel will accommodate the riparian habitat and the 100 year storm event. The boardwalks allow visitors an up-close view of plant and wildlife within the modified channel.

Source: Escondido Creek Design Team

Creekwalk Destination: The Creekcross



Source: Escondido Creek Design Team

Figure 5.90 The Creekcross Seating Area

Constructed Wetlands

Constructed wetlands are man-made landscapes, designed to have the same beneficial functions as natural wetlands and treat contaminated water. They have four key main components: soil and drainage material (such as pipes and gravel), water, plants and micro-organisms. As water flows into a wetland it slows, the wetland vegetation then filters

the solids that are carried by the water. Other pollutants not trapped by the vegetation are transformed to less soluble forms absorbed by the plants (Office of Water 2004).

Vegetation in a wetland provides a substrate (roots, stems, and leaves) where micro-organisms can grow. The micro-organisms

break down the organic material in the water. These micro-organisms help remove pollutants from the water. Nitrogen and phosphorous flushed into wetlands by stormwater runoff provide nutrients to the wetland which are absorbed by the soils, plants and micro-organisms. The wetland microbes or micro-organisms convert organic nitrogen into the useable, inorganic forms (NO_3 and NH_4) necessary for plant growth (Office of Water 2004).

Compared to conventional water treatment methods, constructed wetlands are usually simple, inexpensive and environmentally friendly. Wetlands, however, require a considerable amount of space to construct in order to ensure adequate water treatment. Provided space is available, using constructed wetlands over conventional water treatment methods has the added benefit of providing food and habitat for wildlife, and creating natural landscapes for the community to enjoy.

Creekwalk Destination: The Creekcross

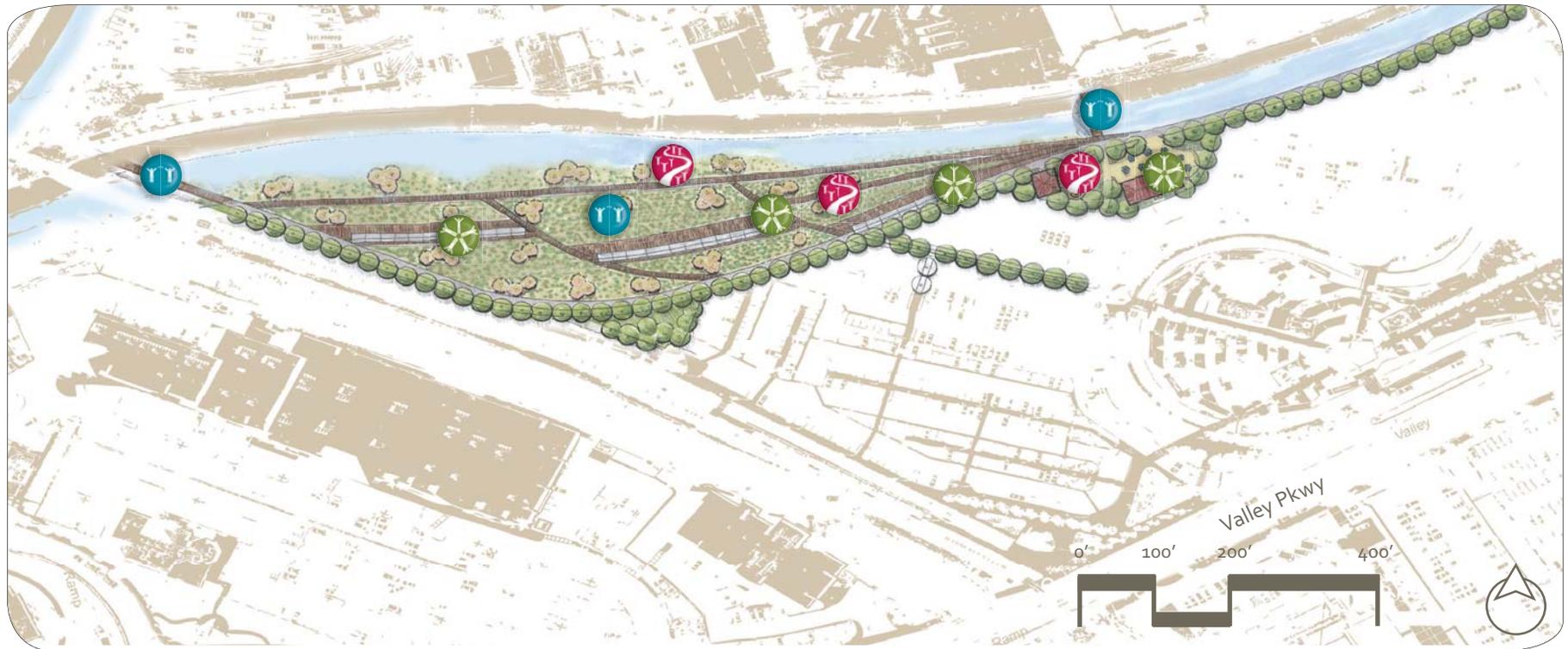


Figure 5.91 The Creekcross Framework Location Map

Source: Escondido Creek Design Team



BRIDGE

The site *Bridges* by opening up the creek channel, allowing visitors to connect to the creek, and providing connections to the Inland Rail Trail.



COLLECT

The site *Collects* by infiltrating stormwater, restoring wildlife habitat, and providing a place for people to gather.



DISCOVER

The site *Discovers* by providing the boardwalks for viewing wetlands and educating public on local ecology.

Creekwalk Destination: Willow Walk

Existing Conditions

Willow Walk is located at the westernmost area of the City of Escondido, southwest of Harmony Grove Road. At this point, the Escondido Creek exits the concrete channel and returns to a soft bottom creek controlled by earthen levees. The property is city-owned and the site boundary encompasses approximately 28 acres. The Escondido Creek Trail currently ends at Harmony Grove Road and does not extend into the site.

Site Opportunities

All but a small portion of the site is currently owned by the City of Escondido. The ownership and the site's vacancy status eliminates typical barriers to implementation posed by land acquisition and greatly increases the likelihood design plans for this site could be fulfilled.

The soft bottom of the channel allows for vegetation to grow and the creek corridor is lush

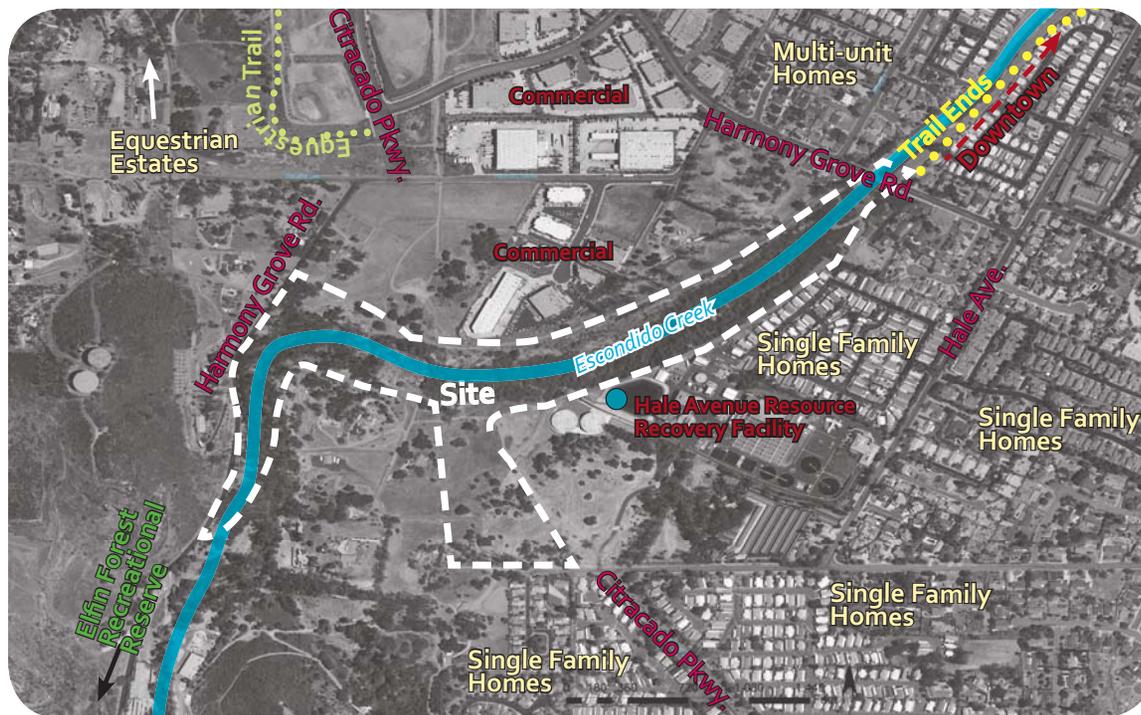
with willows and other riparian plants. This vegetation provides quality habitat for wildlife and allows for the bio-filtration of pollutants from the creek water. The soft bottom of the creek allows for groundwater infiltration and recharge.

Opportunities to create regional trail connections abound at this site. Extending the Escondido Creek Trail southwest to Elfin Forest Recreational Reserve greatly increases access for urban dwellers to the existing open space recreational resources southwest of the city (see figure 5.4). In addition, the planned construction of the connecting link of Citracado Parkway between Harmony Grove Road and Avenida del Diablo will open circulation to the Palomar Pomerado hospital currently under construction (approximately one mile from the site at the Escondido Research and Technology Center-ERTC) (see figure 5.92). A recently constructed trail loop around the ERTC is already a well used local feature. Willow Walk is an opportunity to link the Escondido Trail to the bike trails proposed along Citracado Parkway, and the existing trail around ERTC. Connecting to these routes would significantly expand non-motorized transportation options for local commuters.

The Harmony Grove area, near the site, has a large community of equestrians and equestrian facilities. The site poses an opportunity to extend use facilities to this community while also providing environmental educational programming specific to equestrian-related watershed issues.

Site Constraints

Constraints presented within the existing conditions include the expanding development of commercial and industrial properties adjacent to the site. This new



Source: Escondido Creek Design Team

Figure 5.92 Willow Walk Location Map

Creekwalk Destination: Willow Walk



Source: Escondido Creek Design Team



Source: Escondido Creek Design Team

Figure 5.93 Escondido Creek at Harmony Grove

Figure 5.94 Harmony Grove Natural Landscape

development and the existing buildings are difficult to integrate and make views of the soon to-be-built Citracado Parkway extension, an adjacent industrial site, and the Hale Avenue Resource Recovery Facility (HARRF), a wastewater treatment facility, problematic in a highly naturalized setting.

In addition to land development, maintaining access for authorized vehicles to enter and exit the HARRF facility for maintenance servicing while preventing unauthorized public access to HARRF presents an additional challenge posed by the existing site conditions. Privately owned property at the western boundary of the site will pose additional use challenges.

Site Typology

Entering the Willow Walk site is a distinctive moment after traveling along the Escondido Creek Trail to its western end. The first sight is the lush riparian foliage in the creek bottom. Visitors begin to notice the life at the channel's edge—turtles, egrets, and frogs—a menagerie of riparian creatures. Willow Walk will be the wild landscape within the Escondido Creekwalk. The unique narrow paths beneath braided willow branches overhead are a sharp contrast to the unfettered views afforded along the flood control channel just over Harmony Grove Road. Willow Walk is a remnant of the miles of riparian corridor that once used to meander through the watershed. Though signs of human impacts are evident in the area, visitors will no doubt be moved by the unique wild landscape.

Focused Opportunity

Willow walk is located in what was, until recent decades, a broad open landscape with few homes or development. Today, the construction of commercial spaces and homes is rapidly changing this area from one characterized by open space to an increasingly urbanized area. Willow Walk poses an important opportunity within the boundary of the Escondido Creekwalk to preserve a piece of the wild landscape of western Escondido so residents may experience the intrigue and beauty of a riparian landscape.

Goal

The goal for Willow Walk is to preserve the wild landscape, to educate visitors on the importance of protecting the riparian habitat, provide recreational opportunities for visitors to engage with the creek,

Creekwalk Destination: Willow Walk



Source: Escondido Creek Design Team

Figure 5.95 Willow Walk Trail and Bridge

and to enhance connections between the Escondido Creek Trail to the Elfin Forest Recreational Reserve and to the north and the south bike trail on Citracado Parkway.

Design Response

The Willow Walk Interpretive Center is designed to work in conjunction with the Urban Wild Interpretive Center. Programming at Urban Wild focuses on the living systems within the city, while Willow Walk will focus on the living systems outside of the city in the wild landscapes and will highlight

the impacts humans have on wildlife, habitat and ecological systems. Programming at Willow Walk will reveal to visitors watershed concerns—illustrating to visitors that what happens upstream significantly affects the habitat, wildlife, and human communities downstream. By packaging programming to function in tandem with the programs at the Urban Wild Interpretive Center, visitors to the Creekwalk will acquire a broader understanding of the issues specifically affecting the watershed and will learn about solutions that may address these issues. These programs are essential for inspiring the next generation of

stewards who will protect the delicate habitat of the Escondido Creek Watershed.

The Interpretive Center will include an entry courtyard, dry compost restrooms, a resource center/library, a guide/tour office, and a bookstore offering environmental educational materials for purchase. The facility is designed to be a small building, providing minimal indoor space as the real learning at the site is to be conducted out of doors in the riparian corridor. Site programming will include docent-led walks along trails and through the riparian habitat, interpretive displays, and a horse manure compost demonstration

Creekwalk Destination: Willow Walk



Source: Escondido Creek Design Team

Figure 5.96 Willow Walk Design Plan

Creekwalk Destination: Willow Walk

area. Programming will make use of the site's positioning adjacent the HARRF to educate visitors on the complete water cycle in Southern California, highlighting our heavy reliance on imported water and the need for sewage treatment facilities to prepare wastewater after its use for discharge to our oceans.

A key feature of Willow Walk are the two bridges (see figure 5.95 and 5.97) designed to give visitors a unique experience traversing the creek channel at the height of the tree canopy while minimizing impact to the riparian habitat below. These bridges will give visitors views of the local topography west of the site and a splendid bird's eye perspective of the willow canopy. The bridges have been strategically aligned to maximize views of the mountains and minimize views of HARRF and the neighboring industrial site.

The Willow Walk bridges are integrated into a multi-use trail loop providing pedestrian, bicycle, and equestrian facilities. The loop consists of two trails running parallel—one providing equestrian and pedestrian access, the other bicycle access—and are divided by a vegetated swale and fence. In addition to providing a safe delineation between the trails, the vegetated swale functions to intercept sediments and absorb nutrients from trail run-off that may contain horse waste before the run-off reaches the creek.

Trail highlights include narrow pedestrian-only paths that allow visitors to access the creek and encourage informal "creek play" ventures. A picnic area providing a hitching post allows equestrians a unique opportunity to dismount during the trail journey. Vegetated buffers will be used for the control of horse waste run-off.

The multi-use trail extends west of Citracado Parkway where it turns south to run parallel to Harmony Grove Road, providing non-motorized access to the Elfin Forest Recreational Reserve and beyond to the coast. In addition, recreationalists will be able to

connect to the Del Dios area via trails within the Elfin Forest Recreational Reserve (see figure 5.4). The portion of the Willow Walk trail west of Citracado Parkway to Harmony Grove Road is the only portion of the site planned for non-

Equestrian BMPs

Run-off from manure in concentrated quantities can be as detrimental to a stream or body of water as chemicals and pesticides. Allowing equestrian access to the Willow Walk trail system can introduce these organic contaminants to the Escondido Creek.

Equestrian use of trails can lead to excess nutrients, phosphorus, bacteria, and sediment in the stream adversely affecting water quality (The San Elijo Lagoon Conservancy 2005). Simple measures known as Best Management Practices (BMPs) can be implemented to control the sources of pollution and are highly effective at preventing contamination.

Recommended methods to protect the Escondido Creek from the potentially detrimental impacts of equestrian use of the Willow Walk trails include:

- Restrict horse access to the stream and establish designated equestrian creek crossing points.
- Provide vegetated swales down slope of

trails to help trap sediment and waste before it washes into the creek.

- Trail grade should not exceed 10 percent in order to minimize erosion.
- To minimize erosion; the trail should be constructed so water sheet flows across the trail.
- Remove manure from trails, roads, and horse staging areas regularly to prevent run-off.
- Do not dump horse waste into stream; compost as much waste as possible.
- Provide a temporary storage facility for manure that cannot be removed and/or is not being composted on site. Storage should be at a high point, on an impervious surface, covered, not directly under rooflines and away from the creek to prevent waste from being washed into the creek (The San Elijo Lagoon Conservancy 2005).

Creekwalk Destination: Willow Walk



Source: Escondido Creek Design Team

Figure 5.97 Willow Walk Bridge

city owned property. Acquiring easements to secure this trail extension would provide public benefits by creating non-motorized access from downtown Escondido to Elfin Forest Recreational Reserve and west. This expanded access would benefit both recreationists and commuters seeking routes between Escondido and Harmony Grove, Elfin Forest, and coastal communities.

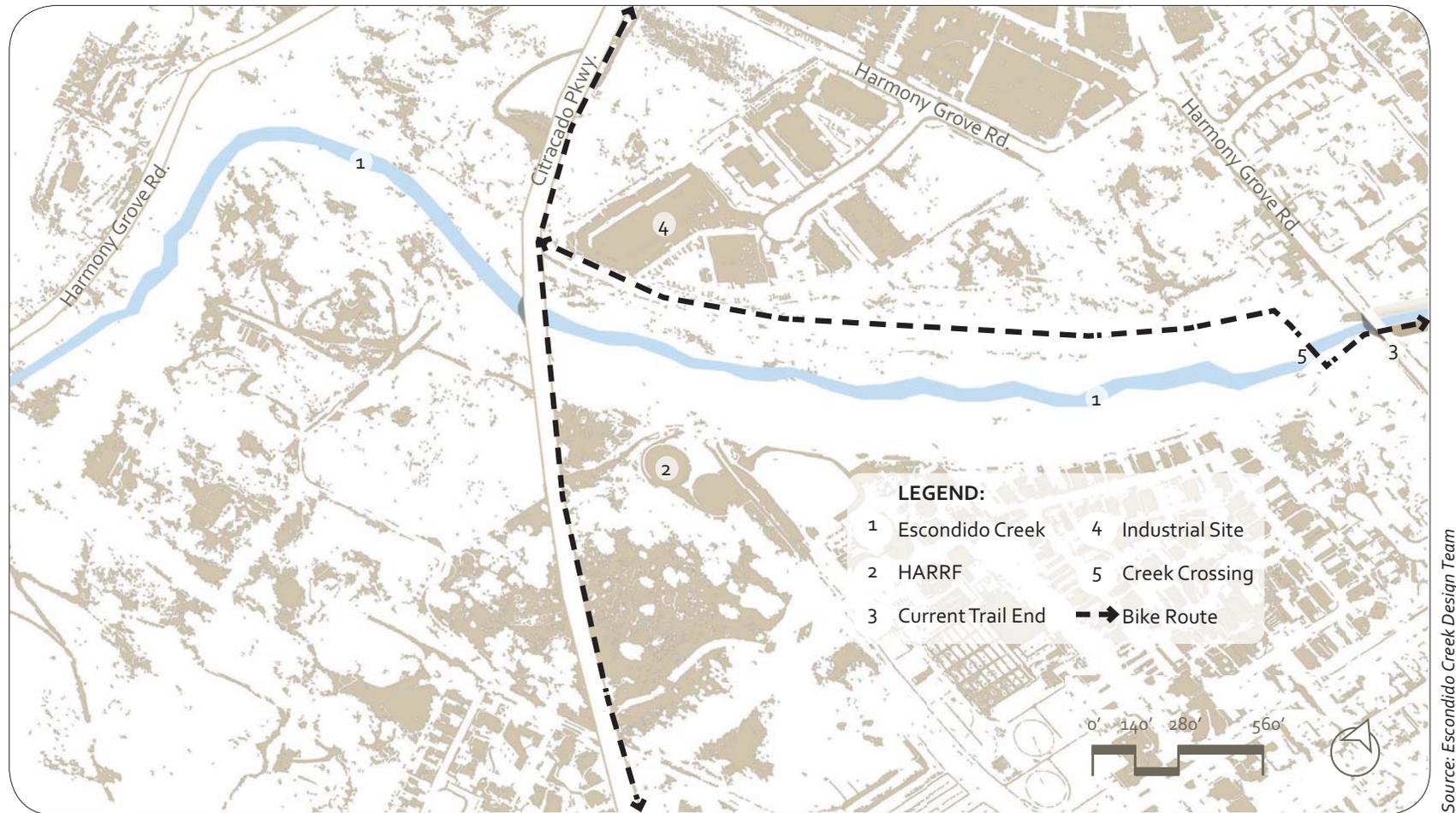
Willow Walk makes use of an adapted version of a ha-ha fence so as to conceal the planned Citracado Parkway. Instead of seeing the busy road, visitors will see views of nearby coastal mountains. Located near Citracado Parkway is a 2.35 acre dog park nestled into

an open, hilly corner of the site intended to serve the local neighborhood. This park is within the Willow Walk site boundary, but positioned far from the riparian corridor to avoid any harmful impact on the creek. Next to the dog park is a horse staging parking lot for day-use horse trailer parking, which provides direct access to the Willow Walk equestrian trail. Vehicle access to the Escondido Creek service road and to the HARRF is preserved but restricted from public use.

Benefits

Willow Walk benefits the environment by preserving and restoring an existing wild landscape that functions to clean runoff and provide habitat for wildlife. Willow Walk benefits the public by implementing accessible trail routes that continue beyond the site. In turn, this creates a unique park experience allowing people to touch, feel, and encounter the wild landscape without constraints. The site benefits both the public and the environment by providing the public with educational opportunities to learn about the living systems in the wild landscape and the impacts humans have on wildlife, habitat and ecological systems.

Creekwalk Destination: Willow Walk



Source: Escondido Creek Design Team

Figure 5.98 Willow Walk Short-term Design Plan

Implementation Strategy

Converting Willow Walk into the full expression of the vision can evolve with time as the funding and resources are made available. The first steps would involve extending the trail to Citracado Parkway to open public access to the site and connect the

Escondido Creek Trail to the parkway (see figure 5.98). This initial trail could begin as a decomposed granite path. With time, the separate paved bike lane could be constructed and the vegetation buffer and fencing could be installed between the equestrian/pedestrian trail and bike trail. Sequential steps may involve developing

the Interpretive Center, the Willow Walk boardwalks, and creation of the dog park. Tertiary steps may involve obtaining an easement from property owners west of the Citracado Parkway to extend and connect the trails to Harmony Grove Road.



Creekwalk Destination: Willow Walk



Source: Escondido Creek Design Team

Figure 5.99 Willow Walk Framework Location Map



The site *Bridges* by linking the community to the wild landscape, and creating a destination for local tourism.



The site *Collects* by creating a place for people with a variety of interests to gather, allowing for groundwater infiltration, and generating revenue for the park via the bookstore.



The site *Discovers* by providing creek oriented recreation and environmental programming targeting wild landscapes.

Summary of Design & Benefits

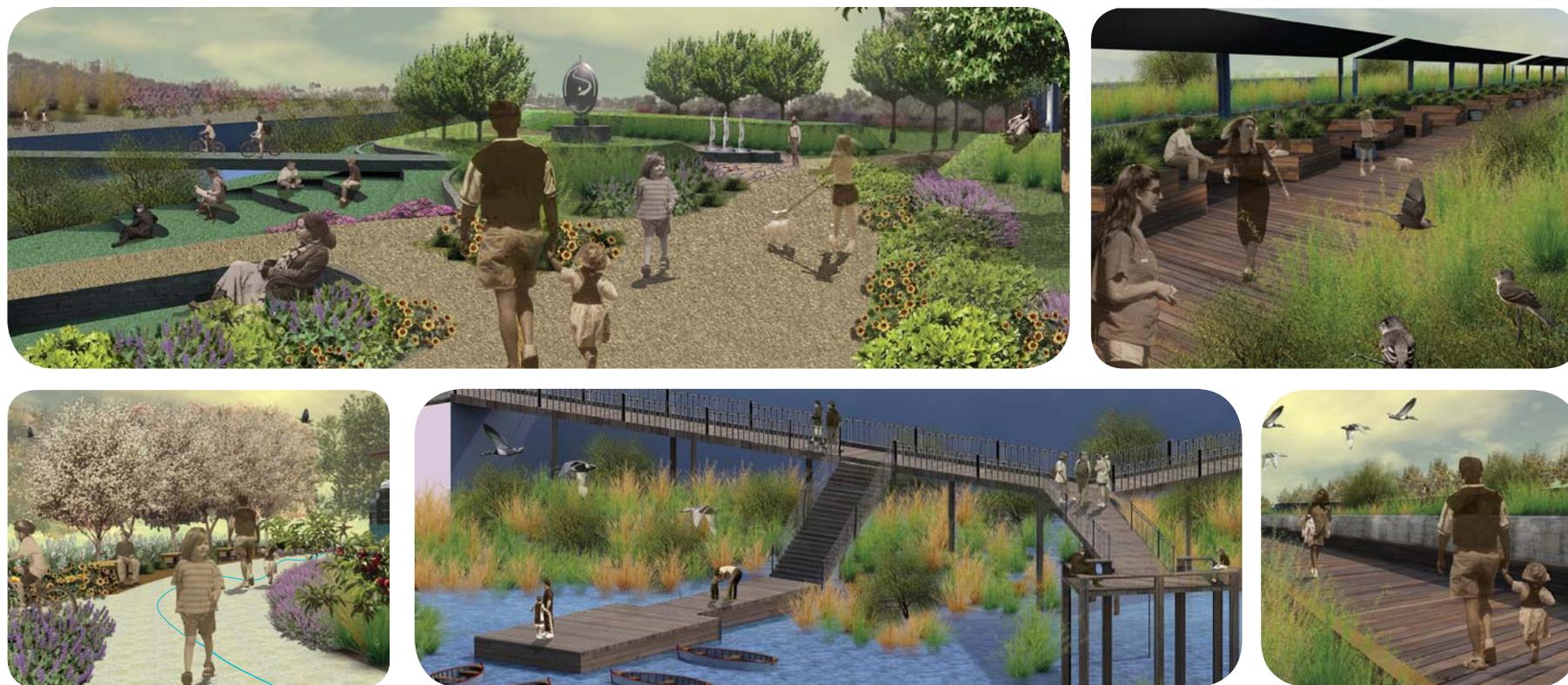


Figure 5.100 The Escondido Creekwalk Vision Images

The Escondido Creekwalk vision plan proposes a myriad of design solutions for the many issues affecting the Escondido Creek, watershed, trail, community. Large and small in scope, the vision plan has been crafted as a flexible implementation strategy in which components may be implemented as resources become available. Moreover, design concepts illustrated for Creekwalk Streetscapes and Creekwalk Destinations can be applied to other sites

along the creek similar in typology providing added versatility to the implementation of the vision.

The Escondido Creekwalk proposes a linear park which can serve as model to other Southern California cities for reconnecting with their urban creeks. Benefits of the Escondido Creekwalk include increasing community awareness of the creek, watershed and living systems in the region, increasing habitat for

wildlife, and improving water quality. Benefits to the community include improving bicycle and pedestrian safety and circulation within the City of Escondido, increasing open space and access to recreational opportunities, revitalizing the downtown core, stimulating local business, and reducing congestion and dependency on the automobile for mobility within the city.

Source: Escondido Creek Design Team

Summary of Design & Benefits

During the course of many months of research and data collection, the design team learned much about what the community envisions for the Escondido Creek trail. From the community outreach, the design team learned that the users of the creek path and the residents of Escondido want to feel safe as they travel along the creek trail; safe from both crime and safe as they cross the many streets that intersect the trail. The design team also learned that the health of the creek is vital to the health of the watershed, and that the residents of Escondido believe a healthy creek is important. The design team learned that many of the city's residents depend on the trail for getting around their neighborhoods and conducting their daily affairs. And finally, the design team learned that the residents of Escondido would like the creek trail to be a beautiful, pleasant place to visit.

As the design team developed these conceptual designs the team kept these lessons, as well as the many suggestions made during community events and meetings, in mind. The preceding design solutions attempt to incorporate all of these lessons and plan forward, in both the long and short term, to improved design ideas for the creek. Driving the design solutions for each site are the focused opportunities of the site, and specific targeted solutions to issues raised by current conditions of the site.

The design team has attempted to address the issue of access to the creek trail at all of the sites by removing the gates and fences where appropriate and providing abundant opportunities for users to enter and exit the site at will. Also applicable to every site is the issue of aesthetics, which the design team has attempted to address through the use of appropriate plant material, the inclusion of color and the hospitality of a welcoming environment. Reflecting many

of the suggestions made by participants at the Community Design Workshop and respondents to the community survey, all of the sites include basic comfort amenities that make a visit to the creek more pleasant in both large and small ways.

The communities concerns about safety along the creek trail were a significant part of the design team's focus. Concerns about safety from criminal activity are addressed through the inclusion of lighting along the creek trail, combined with an increase in porosity to the trail at all of the sites. These suggestions, while not comprehensive solutions by themselves, when combined with the suggestion to follow the community's desires to institute increased police presence through bicycle patrols, are steps towards addressing the issue. Safety concerns related to street crossings are addressed in the design solutions through the inclusion of many traditional, as well as some novel, approaches. For instance, crosswalks are a ubiquitous solution to the problem of pedestrian and vehicular interactions, but the installation of pedestrian activated walk signals and raised pedestrian tables are more progressive approaches.

Related to both safety and access is the issue of the missing link, which has been addressed in the design through a phased strategy. In the near-term, suggestions are made to route the existing trail on surface streets, through a first phase of revitalization of the Creekfront development and reconnection back to the trail at Quince Street. In the long-term, the suggestion is to incorporate the trail into the larger reimaged Creekwalk Destination.

The health of the creek and the associated reintroduction of habitat in portions of the creek

will be an ongoing and long-term concern, but the design suggestions offered here are a conceptual attempt to illustrate how this undertaking can be accomplished. By widening the concrete channel at sites along the creek and reintroducing vegetation to the creek bottom and sides, the design provides for the possibility of expanded use by wildlife found in other areas of the watershed while maintaining the city's need for protection against flooding. Further, ground water recharge is promoted through this channel modification. This design solution also has the added benefit of helping raise awareness to the issue that the creek is in fact a riparian system and an integral part of the watershed. This process of raising the community's awareness of the role of the creek in the watershed is an important component of the design team's response, and a core principle of the initial proposal to provide a vision plan for the creek and trail. The long-term vision of the design team addresses this process through the inclusion of two distinct interpretive centers dedicated to raising the community's awareness of the local wildlife and the creek's role in the watershed as part of a natural system. The first interpretive center is located in the heart of the city along the channelized portion of the creek, and the second interpretive center is located along the naturalized portion of the creek in Harmony Grove.

Revitalization throughout the city is possible over time by engaging the creek, the neighborhoods connected to the creek, and the interface between the creek and the city. The solutions outlined here are intended to serve as a catalyst for discussions and action over time. By recognizing the creek as a vital component within the watershed and the city, putting the considerable community resources to work, and taking advantage of the existing infrastructure, real change can occur along the Escondido Creek and Trail.

Section 6

ACTION PLAN



Evolution of the Vision

The *Revealing Escondido Creek* vision plan is intended to serve as a guide illustrating how the Creekwalk may evolve over time. It is important to allow for an organic evolution of the Creekwalk: this vision plan is not intended to be read as a linear progression. Each of the Creekwalk sites and design components should be allowed to develop at a pace independent of other components. The Escondido Creek itself will serve as the thread that gradually weaves

each of the components together, thereby stitching all aspects of the Escondido Creekwalk into a linear tapestry.

The vision plan document is meant to serve as a catalyst for change and can be used to secure funding from public and private sources by demonstrating a cohesive, community-developed vision for the Creekwalk. Design solutions requiring fewer resources or less community

organization, such as planting drought-tolerant landscaping or striping crosswalks, may likely be implemented first. Grassroots efforts coordinated by a “Friends of the Escondido Creek” or a neighborhood group can be the first changes transforming any one of the eight Creekwalk sites. However, it is equally important the community recognize that the more involved components of the vision plan, such as creating the Urban Wild Interpretive Center, could develop rapidly should resources become available. This vision plan can be used to help secure these resources.

With funding in place, the larger obstacles preventing the fulfillment of the Creekwalk fall away. The community’s demonstrated commitment to the Escondido Creekwalk vision is the first step towards implementation of the Escondido Creekwalk.

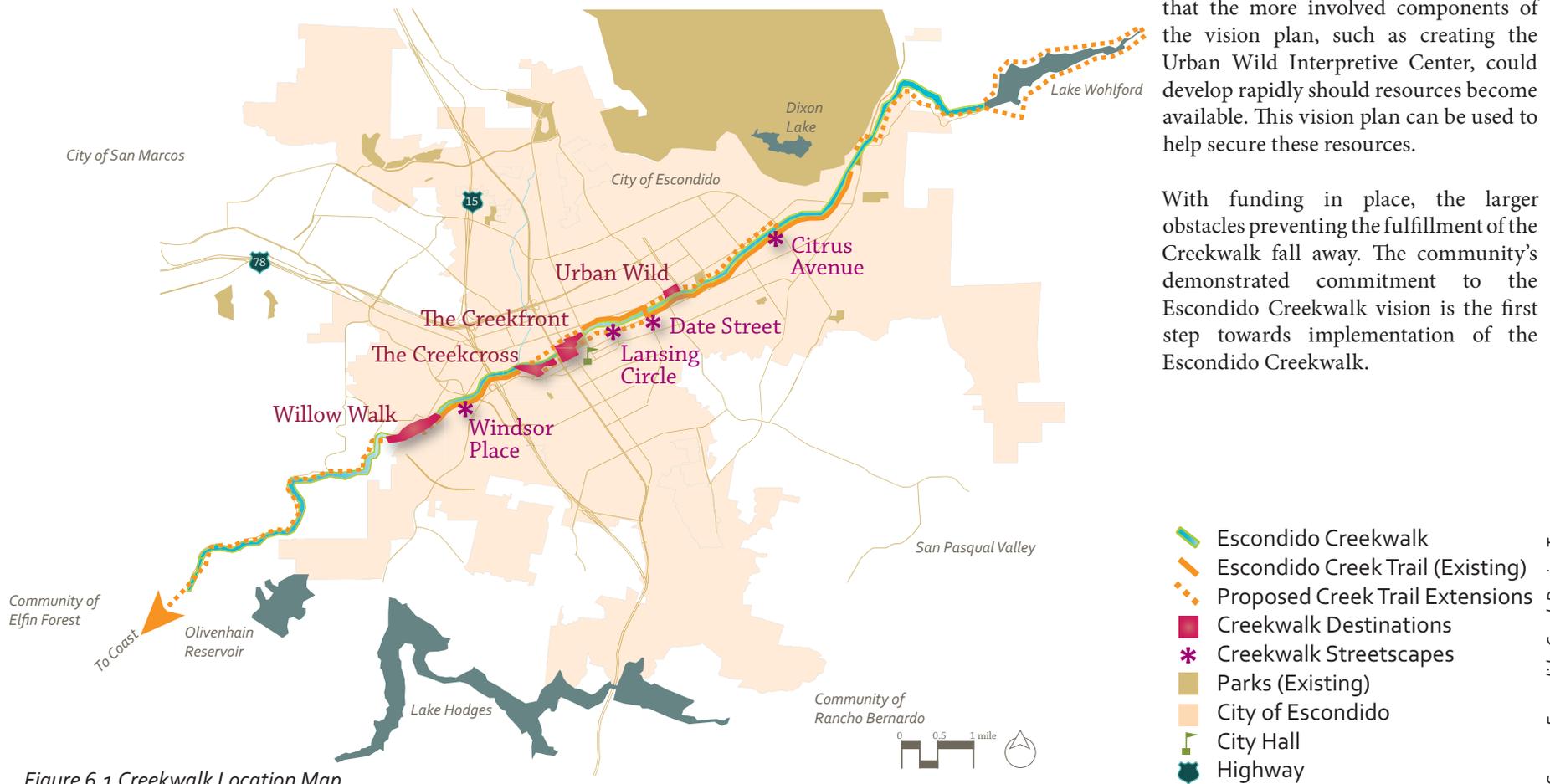


Figure 6.1 Creekwalk Location Map

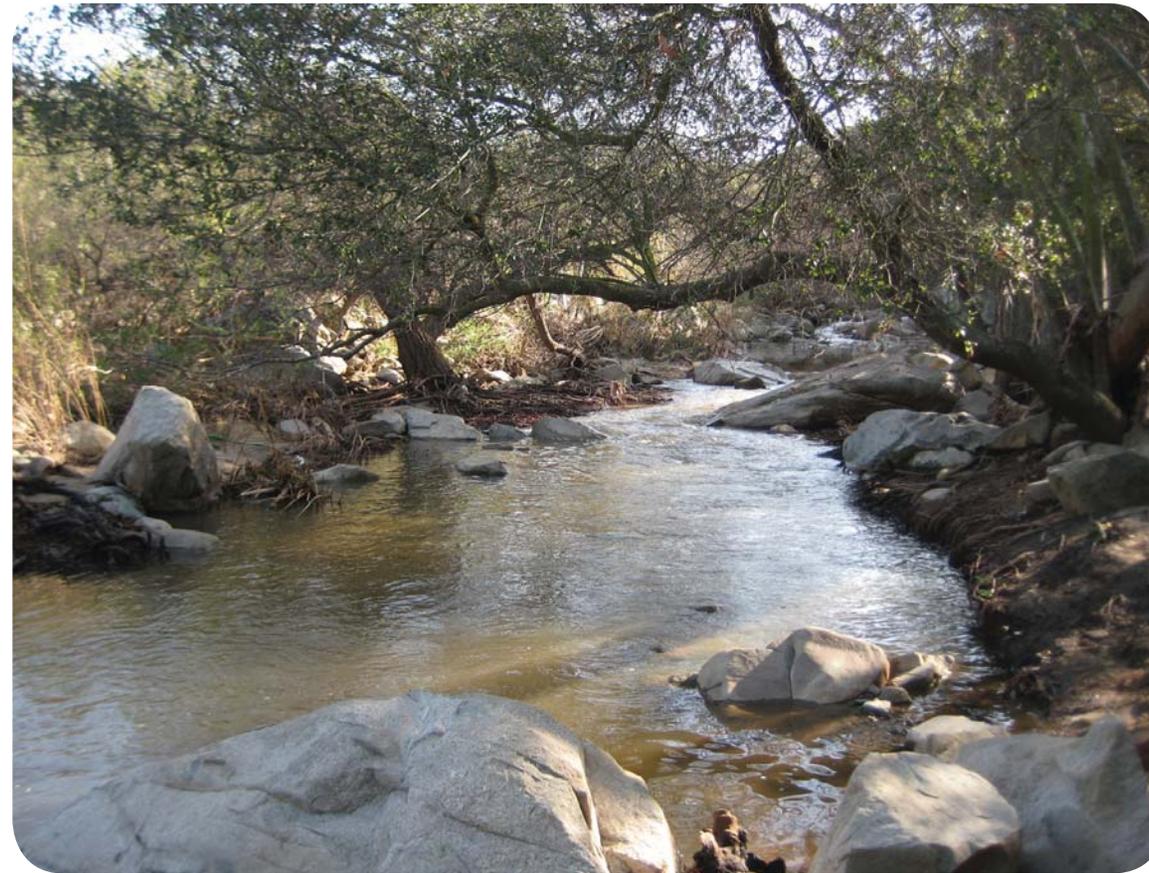
Source: Escondido Creek Design Team

Awareness Plan

Initiating Major Impact Through Minor Change

In a bygone era, the Escondido Creek had a prominent presence in the Hidden Valley. The community depended upon the creek as a source of fresh water and the creek expressed its presence by overflowing its banks during periodic storm events. In more recent years, however, the public awareness of the

Escondido Creek has all but disappeared; obscured by the flood control infrastructure by which the creek has been bound. Today, few residents within the community realize the water flowing through the flood control channel is the riparian backbone of a complex watershed system. Cultivating protection and stewardship of the Escondido Creek is contingent upon inspiring appreciation of this unique local riparian feature while managing risk



Source: Escondido Creek Design Team

Figure 6.2 Escondido Creek at Elfin Forest

from periodic flooding. Providing access to the creek and its riparian environs for recreational purposes can be coupled with programming designed to increase awareness of the creek and its integral significance to the health of the regional environment.

FIRST STEPS

The Creek Must be Recognized for What it is: A CREEK

By the late twentieth century the community stopped referring to the Escondido Creek as a creek and began referring to it as the “flood control channel.” Though in part an accurate moniker, referring to the stream as a structure severs the creek from its natural context and obscures its significance to the community, the regional environment, and the watershed. A first step to restoring the Escondido Creek to its former vibrancy involves the simple act of reflecting in our language the Escondido Creek’s true identity as a water course.



Source: Escondido Creek Design Team

Figure 6.3 Escondido Creek

Awareness Plan

Signage: An Impactful First Step

As the creek has been obscured in local language, it has also become hidden within the landscape. The data collected by the design team's user interviews, revealed the lack of ability of people along the flood control channel to identify the creek as a creek. Signage identifying the creek strategically placed at points of crossing would help increase awareness of the creek's presence, and greatly facilitate the community's ability to identify the creek. A signage program along the stream would identify the Escondido Creek as a regional feature worthy of distinction.

A proposal written by Geoffrey Smith, Communications Director for San Elijo Lagoon Conservancy, has developed a creek signage program installing identity signs at every crossing for the entire length of the Escondido Creek. The proposal suggests options at varying investment levels, the first being more affordable standard street signs. The second option is for custom signage which could serve as both art piece and identity marker. The first option, standard street signs, could be fabricated by the City of Escondido's signage workshop. The proposal, written in 2006, estimates the cost to produce 40 signs for the area within city boundaries would be \$2,800. This low cost first step would significantly help raise the profile of the creek in the public's eye, distinguishing the waterway as an important local feature.

Over the past three decades many municipalities and environmental activist groups have worked hard to help communities recognize the area's position within the regional environmental context.



Figure 6.4 Interpretive Signage at Guadalupe River

Basic “no dumping—drains to ocean” signage painted on curbs and roadways has successfully reminded the public of the environmental context surrounding them by identifying the consequences their upstream actions may have on downstream habitat. In addition to identity signage placed at creek crossings, stenciling “no dumping—drains to Escondido Creek” at stormwater inlets would

help reinforce the creek's interconnectedness with the local urban infrastructure and the wild environments immediately downstream.

Source: Escondido Creek Design Team

Awareness Plan

Educational Programming

Escondido Creekwalk educational programming has been designed to create a cyclical loop. The educational programs for the two Creekwalk interpretive centers, the center at Urban Wild and the center at Willow Walk, are designed to work in tandem. Programming at Urban Wild Interpretive Center will provide insight into the impacts urban landscapes can have on living systems, while programming at Willow Walk Interpretive Center will educate visitors on the impacts upstream communities have on the local downstream landscape.

Once fully developed, the concept for educational programming at the interpretive centers will include a package of docent-led hikes, lectures, and demonstration displays and gardens. The two interpretive centers will offer the same package of programming but be distinguished by the site's particular educational focus. Programming at Urban Wild will focus on nature in the urban landscape and our human relationship to it and programming at Willow Walk will focus on the nature in the wild landscape and our human relationship to it. For example, lectures at both sites may focus on equipping visitors with methods for responding to encounters with animals commonly considered threatening or a nuisance. Whereas lectures at Urban Wild, would teach visitors about the behaviors of coyotes, bats, and honey bees and suggest safe response methods to encounters, lectures at Willow Walk would focus on the behaviors and proper responses to encounters with wild animals such as mountain lions and rattlesnakes. Demonstration gardens at Urban Wild may teach people organic home gardening techniques, and methods for reducing household water consumption. Demonstration gardens at Willow Walk may teach



Figure 6.5 Interpretive Center at San Elijo Lagoon

visitors how to design home gardens to attract creatures of flight or displays illustrating the cycle of consumption of imported water and the discharge of wastewater off the coast of San Elijo Lagoon.

Source: Escondido Creek Design Team

Community Stewardship

“Through human action, visual involvement, and the attachment of values, people are directly involved in public spaces. People claim places through feelings and actions” (Altman 1989).

The involvement of the community through stewardship programs can help ensure long-term management and guarantee maintenance beyond the vision planning and design phase of the project. Community involvement can also help residents appreciate the value of the resources for which they are aiming to steward. In *Kids at the Creek*, Benito, Garrison, Kiefer and La Grange (2007) outline three approaches to creating stewards within a community: introducing the community to itself, transferring responsibility and identifying leaders.

Step 1: Introducing the Community to Itself

The first step in the creation of stewards in a community is to introduce the community to itself. This introduction of residents begins the process of unveiling a community’s unique assets to its residents. One method would be to regularly conduct community volunteer led “Discovery Journey” walks or bike rides along the Escondido Creek and Trail. A key component of the Discovery Journeys would be reintroducing residents to the positive attributes of the creek, the trail, and the neighborhoods. Within the City of Escondido, community-initiated bicycle rides along the trail have already begun. These events have increased public awareness of the creek and trail, brought attention to the issues, and have fueled interest in creating positive change. Building upon the success of the rides and expanding the events to include walks will help a broader group of residents discover the unique qualities of the creek and trail.

Step 2: Transferring Responsibility

Residents gain greater appreciation for their living environments and take on additional community management responsibilities when they become aware of the needs of their community. Occasionally in other community projects, once the design phase of a project is complete, community participation dwindles, members lose momentum and involvement in the project recedes before the job is complete. In order to continue the momentum created by the initial community activists, capture the community resources identified during the course of the project, and ensure the continued participation of the community beyond the vision plan phase, additional techniques must be implemented.

Step 3: Identifying Leaders

The third step in creating community stewards in the City of Escondido will be to determine who the key participants are within the community and to foster their leadership skills. Developing task forces and assigning responsibilities to community members is a valuable step for building community self sufficiency and identifying community members who can continue the momentum of involvement long after the completion of the *Revealing Escondido Creek* vision plan (Crewe 2001). Once a strong network of community members has been established, alliances with local institutions, such as with the City of Escondido police department, can be formed.



Figure 6.6 Meeting at Escondido Creek Conservancy

Source: Escondido Creek Design Team

Initiating a "Friends Group": Combining Steps 2 & 3 for Positive Change

Developing and supporting the formation of a “Friends of Escondido Creek” group can be a powerful technique of incorporating the second step of community stewardship, “Transferring Responsibility,” with the third step recommendation of “Identifying Leaders” (Benito et al. 2007).

The value of creating community task forces is in including more people in the decision-making processes, sharing the workload of implementing and enacting design ideas, and encouraging people to have a greater voice throughout the process of transforming the city for the future. Likewise, residents can become involved in the maintenance of the Escondido Creek Trail with volunteer groups conducting routine

Community Stewardship

cleanups, participating in design, construction and planting projects and enacting neighborhood watch groups. Through community participation, residents will be empowered and encouraged, which fosters a sense of grass-roots activism that will persist in the future.

A “Friends of the Escondido Creek” group (“Friends”), can be a band of community-initiated and organized residents interested in the promotion and stewardship of the Escondido Creek and Trail. Membership must be inclusive to involve all residents of the community, open to all age groups, commitment and experience levels. The City of Escondido can support this group by actively assisting in its formation and partnering with the group once established, but supporting the group’s independence.

The “Friends” group could be responsible for outreach, fundraising, and stewardship aspects along the creek. A suggested package of activities sponsored by the “Friends” group may include Creek Clean Up volunteer days in which participants remove errant trash and debris from the creek and areas draining to the creek. Other events may include graffiti removal events in which graffiti and “tags” are removed or painted over with a community created mural, painting crosswalks at street intersections, and stenciling storm drains with “no dumping, drains to Escondido Creek” signs. In addition to events, members of the “Friends” group can volunteer, in coordination with the Escondido Police Department, to host periodic rides/walks of the trail with the express goal of increasing citizen surveillance of the trail—a citizen’s watch program tailored to the creek trail.



Source: Escondido Creek Design Team

Figure 6.7 Community Design Workshop

Education & Stewardship Programming Can Start Today

The long-term concept for the Escondido Creekwalk entails two interpretive centers; however, the educational and stewardship programs are not dependent on the construction of the centers and can begin immediately. Initial programs may include visits to venues led by a group of volunteers. At Urban Wild and Willow Walk, volunteers can take visitors on walks around the venue in which visitors can begin learning

about the human impacts on the landscape. Initial stewardship programming at each site may involve a planting day in which a group of volunteers helps to vegetate Urban Wild with native grasses or restore native habitat at Willow Walk. It is important to keep in mind educational and stewardship programming is not contingent upon the building of facilities or large infrastructural improvements but rather dependent upon a group of individuals dedicated to fostering the Escondido Creekwalk and their willingness to donate their skills and time to the betterment of the Escondido Creek.

Future Planning Recommendations

An Ecological Approach to City & Regional Planning

Wildlife and plants know no political boundaries; they follow the course of high quality habitats across the region. To increase the success of biological diversity in a region, natural resource policies that encourage the preservation and conservation of these habitats must be put into place, creating a system of open space corridors and easements which promote land acquisition programs. In the case of new development, cities must employ strict measures to avoid adverse impacts to biologically diverse land. Measures available to cities experiencing development, but committed to the protection and preservation of plant communities and land with high levels of biological diversity, include buffers and setbacks (Escondido General Plan 1990). Mitigation and replanting measures may also be employed if development must occur on natural habitat land.

Because habitat, water quality and air quality follow the natural lines of open space corridors, watersheds and air basins, it is crucial that cities collaborate with one another to address environmental issues on an ecosystem-wide basis. Driven by a concern for conservation, the San Diego region has broadened jurisdictional boundaries by implementing the Multiple Habitat Conservation Program (MHCP) and the Multiple Species Conservation Program (MSCP), to deal with environmental issues on an ecosystem-wide level.



Figure 6.8 A Snowy Egret at San Elijo Lagoon

Source: Escondido Creek Design Team

Next Steps



Source: Escondido Creek Design Team

Figure 6.9 Bike Walk Survey Event

Next Steps: Keeping the Momentum Flowing

The visioning process for the Escondido Creekwalk generated a great deal of community participation and excitement; however, maintaining the energy and transitioning from the visioning process to the first steps towards implementation is crucial. It is important the community see that their efforts to re-imagine a revitalized Creekfront were useful. Evidence that positive change along the Creekwalk is underway will help transition the momentum from one of imagination to one of realization.

This vision plan sets forth some grand ideas but also includes easier to implement measures. Implementation of the vision does not need to wait to begin until the resources for the larger visions are in place—smaller scale aspects of the vision plan can and should begin as soon as possible.

A suggested first step would be mitigating the Missing Link in the Escondido Trail. The vision plan proposes establishing a passageway through the Civic Center Plaza shopping mall. Establishing the connection between the east and west segment of the trail is an important first step that would immeasurably improve pedestrian and bicycle

mobility within the city. If obstacles to constructing the passageway arise, a more immediate preliminary option could involve posting a detoured route until construction of the passageway can occur. Improving connectivity within the city will increase pedestrian and bicycle safety and increase trail use.

Other next steps to consider are safety measures for trail street crossings. The application of thermoplastic crosswalks at trail intersections with surface streets will help alert drivers of pedestrian and bicycle cross traffic and raise awareness of their possible presence.

It is crucial the community witness the reclamation of the creek and trail and begin to see positive change taking place. A relatively simple but striking next step would be to begin planting the areas adjacent the creek trail with low water and low maintenance flowering plants. Plantings could be coordinated by volunteer efforts. A suggested plant to consider is the hearty but vibrant California Sunflower, *Encelia californica*. This perennial is a small shrub noted for its bright and long-lasting yellow flowers which resemble sunflowers. See appendix D for additional plants to consider. Volunteer planting days are rewarding to participants but also create evidence of change the community will recognize.

APPENDICES



Appendix A: Community Event: Bike Walk Survey - Agenda

Agenda

10:00 a.m. Meet and gather (Grape Day Park train station)

A. Check in

1. Have people sign in and sign up for raffle
 - a) Distribute flyer/map/name tags
 - b) Raffle sign-in and distribute water bottles

B. Introduce

1. Remind everyone to sign-in and get a map and sign up for raffle
2. Introduce the Revealing Escondido Creek Design Team
3. Introduce the project
4. Explain Goal for Revealing Escondido Creek project
5. Prompt participants on what to look for during the Bike/Walk Survey
6. Briefly explain the route
7. Provide safety brief

C. Bike/Walk Survey

1. Group into teams (10 minutes)
2. Explain route
3. 10:30 Explore creek (1 hour)
4. Return to the Mitchell Room

D. Mitchell Room

1. 11:30-12:00 p.m. Arrival—Cognitive Mapping Exercise
 - a) As participants arrive, give participants 1 piece of blank legal paper & any color pen.
 - b) Instruct them to draw on legal paper all their memories of the trail they just experienced. The point is not to be artistic

but to record their impression. Explain this is a fast drawing 5 minutes

- c) Advise instructions for mapping is on flip chart on table
- d) Direct participants to sit with their team—green, orange, magenta—and ask them to help themselves to food
- e) Collect maps as people finish (after about 10 minutes) and return maps to table at door

2. 12:00 p.m. “Likes” & “Dislikes” Mapping Exercise (15 minutes)

- a) As the people finish drawing their perceptions, gather them into small groups (within the team) of 4-6 people
- b) Grab the “likes” maps and 3 BLUE pens and distribute to the small group
- c) Keep doing this until everyone on the team is working in a group on a “likes” map for their route
- d) After 15 minutes, collect the “likes” maps and BLUE PENS
- e) 12:20 p.m. Mapping the team’s “Dislikes” (15 minutes)
- f) As the group’s finish drawing their “likes” maps, grab the “Dislikes” maps and 3 RED pens and give them to the small group
- g) Keep doing this until everyone is working on a “Dislikes” map for their route
- h) After 15 minutes, collect the “Dislikes” maps and RED pens

3. 12:40 p.m. Raffle drawing

- a) Make sure everyone has signed in
- b) Draw two names
- c) Each winner can choose either T-shirt or bike bell



Source: Escondido Creek Design Team

Figure A.1 Bike Walk Survey Participants

4. Wrap-up (12:50 p.m.)

1. Announce next community meeting: Wednesday 3/24/10 @ 6:30 p.m.
2. Make sure everyone gets a seed packet
3. Clean-up

Appendix A: Community Event: Bike Walk Survey - Flyers



Join Us for an Exploration of the Creek



Who's Invited?

Bicyclists, walkers, joggers, and residents of Escondido. Open to people of all ages!

When?

Event: 10:00 AM-1:00 PM. Meet 10:00 Sharp.

Saturday, February 13th, 2010

**Rain or Shine
Please RSVP to:**

www.revealthecreek.com/bike-walk.html
Let us know if you plan to bike or walk.

Have questions, comments, or concerns?
Send an email to:
info@revealthecreek.com

Next Event: Community Workshop
March, 2010

Visit: www.revealthecreek.com

The **Revealing Escondido Creek** team from Cal Poly Pomona's Department of Landscape Architecture will be hosting a **BIKE WALK SURVEY** of the Escondido Creek Trail. You are invited to come along and join the fun as we explore and learn more about the creek trail. Please come help us reimagine the Escondido Creek Trail!

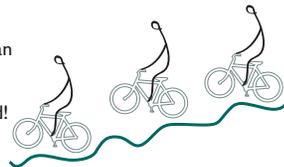
Where?

Meet at the Train Depot in Grape Day Park at 10:00. We will divide into groups and start the exploration.



What to Bring:

Walking shoes if you plan to walk—
Bike and helmet if you plan to bike
Snacks & Drinks provided!



Acompañamos a la Exploración del Arroyo



El **Equipo del Arroyo Revelador de Escondido** del Departamento de Arquitectura del Paisaje de Cal Poly será el anfitrión del **CUESTONARIO DE BIKE WALK** en el Arroyo de Escondido. Usted esta invitado a unirse a nosotros y a divertirse mientras exploramos el arroyo. Por favor venga ayudarnos a reimaginar el Arroyo de Escondido.

¿Cuándo?

Evento: 10:00 AM - 1:00 PM.
Encuéntrenos a las 10:00 AM.

**Sábado, Febrero 13
Aunque llueve o este soleado**

Por favor díganos si asistirá:

www.revealthecreek.com/bike-walk.html
Infórmenos si planea caminar o usar su bicicleta.

¿Tiene preguntas, comentarios o preocupaciones?
Mande un correo electrónico al:
info@revealthecreek.com

Próximo Evento: Taller Comunitario en Marzo 2010



Visit:
www.revealthecreek.com

¿Quiénes

están invitados?

Personas en bicicletas, personas caminando y personas que trotan. ¡Abierto para todas las edades!

¿Qué Traigo?

Zapatos cómodos si planeas caminar.
Casco y bicicleta si planeas usarla.
¡Las botanas y bebidas serán proveídas!

¿Dónde?

Nos encontraremos en el Train Depot en el parque de Grape Day Park a las 10:00 AM. Nos dividiremos en grupos y empezaremos nuestra exploración.

MAPA DEL LUGAR



Figure A.2 Bike Walk Survey Event Posters (English & Spanish)

Appendix A: Community Event: Bike Walk Survey - Routes

Welcome to the Escondido Creek bike/walk event!

While you are riding or walking today, please pay attention to things you see that you like or dislike, areas that you enjoy or areas that need improving.

While exploring, pay attention to your five senses:

Sight - what do you see along the path?

Sound - what do you hear at various points along the route?

Smell - are there smells? Flowers, blossoms, water, food?

Touch & texture - how do things feel?

Taste - can you imagine good things to eat accessible from the creek?

The safety of the participants in today's event is the most important consideration - a few things to keep in mind:

- Please Wear a Helmet while riding
- Please obey all traffic laws (cross at intersections, yield to pedestrians, stop at red lights and stop signs)
- Always Ride Under Control
- Please feel free to turn around and return to the Mitchell Room at any point during the exploration of the creek.
- Have Fun!

Please join us March 24th for our next community event, Visit: www.revealthecreek.com for details!

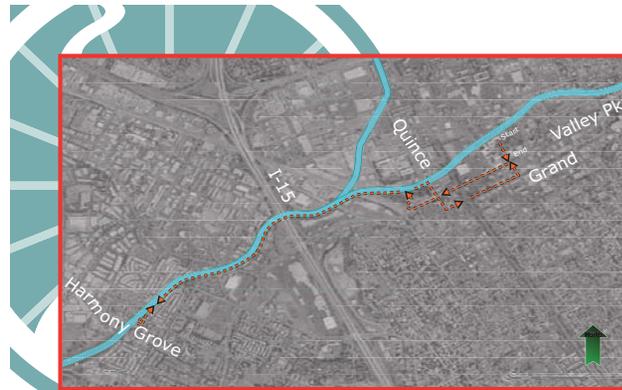
Green Group – Grape Day

Walking:

1. We'll leave Grape Day Park crossing Broadway at the crosswalk.
 2. We're going to follow the sidewalk to the creek where we'll walk along the creek to Juniper St.
 3. Turn around at Juniper and return to explore the park on foot.
- Please come into the Mitchell Room to share your observations with the group.



Figure A.3 Bike Walk Survey Information Flyer



Biking Orange Group -- Western Route:

1. Leave Grape Day Park & head west on Valley Pkwy. to the Transit Center, crossing Quince at the light.
2. Follow the auto entrance around the transit center toward the creek.
3. At the creek, turn left onto the bike path, don't cross the bridge.
4. Follow the bike path along the creek to its end at Harmony Grove Rd.
6. Return by taking the bike path to Quince St.
7. Turn right at Quince, left at Grand and then left again at Maple.
8. Cross at the crosswalk and come in to the Mitchell Room for lunch and to share your observations with the group.

Please travel for 30 minutes out, and 30 minutes back.

Biking Purple Group -- Eastern Route

1. Leave Grape Day Park and cross Broadway at the crosswalk.
2. Ride in the direction of auto traffic north to the creek.
3. Follow the creek, crossing Juniper, Hickory & Fig.
4. Cross the creek at the Date St. pedestrian bridge.
5. Ride along the creek to Ash.
6. Return to Grape Day Park by following the creek to Broadway.
7. At Broadway, turn right and cross the street at the Washington St. light.
8. Turn right at Woodward St. and enter the park behind the train station. Follow the path into the Mitchell Room for lunch and to share your observations with the group.



Appendix A: Community Event: Bike Walk Survey - Mapping

Cognitive Mapping Exercise

As groups returned from their exploration of the creek trail, participants gathered at the Mitchell Room in City Hall to complete a quick exercise intended to elicit their first impressions about the experience of the creek and trail. Each participant was given a ledger size piece of paper and asked to take ten minutes to draw and map their experience (see figure A.5). Though the instructions were given to participants to draw and that drawing skill was not important, most of the fifty participants opted to write brief comments rather than render their impressions.

Information from the cognitive mapping exercise was categorized based on its content into four categories: likes, dislikes, hopes and concerns. Each category was then broken down into subcategories based on the frequency of their occurrence. The “like” category was subdivided into habitat, experiential, recreation, vegetation and access. “Dislike” was subdivided into experiential (e.g. sight, smell, sound), security and safety. “Concerns” was subdivided into no concerns, funding, and increased crime. “Hopes” was subdivided into amenities & aesthetic improvements, landmarks (e.g. home depot and bike shops), access, stewardship, ecology, economic stimulations.

According to the cognitive mapping exercise results (see figure A.6), sixty percent of the dislike information gathered was experiential. Many participants mentioned their dislike of the “busy streets, chain link fence, graffiti, lack of trees and plants, trash, no trash receptacles” and “no benches to sit on.” Most participants liked the habitat along the creek, with 40% of the like results for habitat. Participants enjoyed watching the ducks in the channel and the greenery they saw along the trail and at Grape Day Park. Only



Figure A.4 Cognitive Mapping Exercise

four out of fifty people had concerns for funding and increased crime. Many participants had hopes for amenities and aesthetic improvements (twenty-eight percent). Some suggestions for amenities and aesthetic improvements were lighting along the trail, more trees and vegetation, dog clean up stations and benches.

Source: Escondido Creek Design Team

Appendix A: Community Event: Bike Walk Survey - Map Results

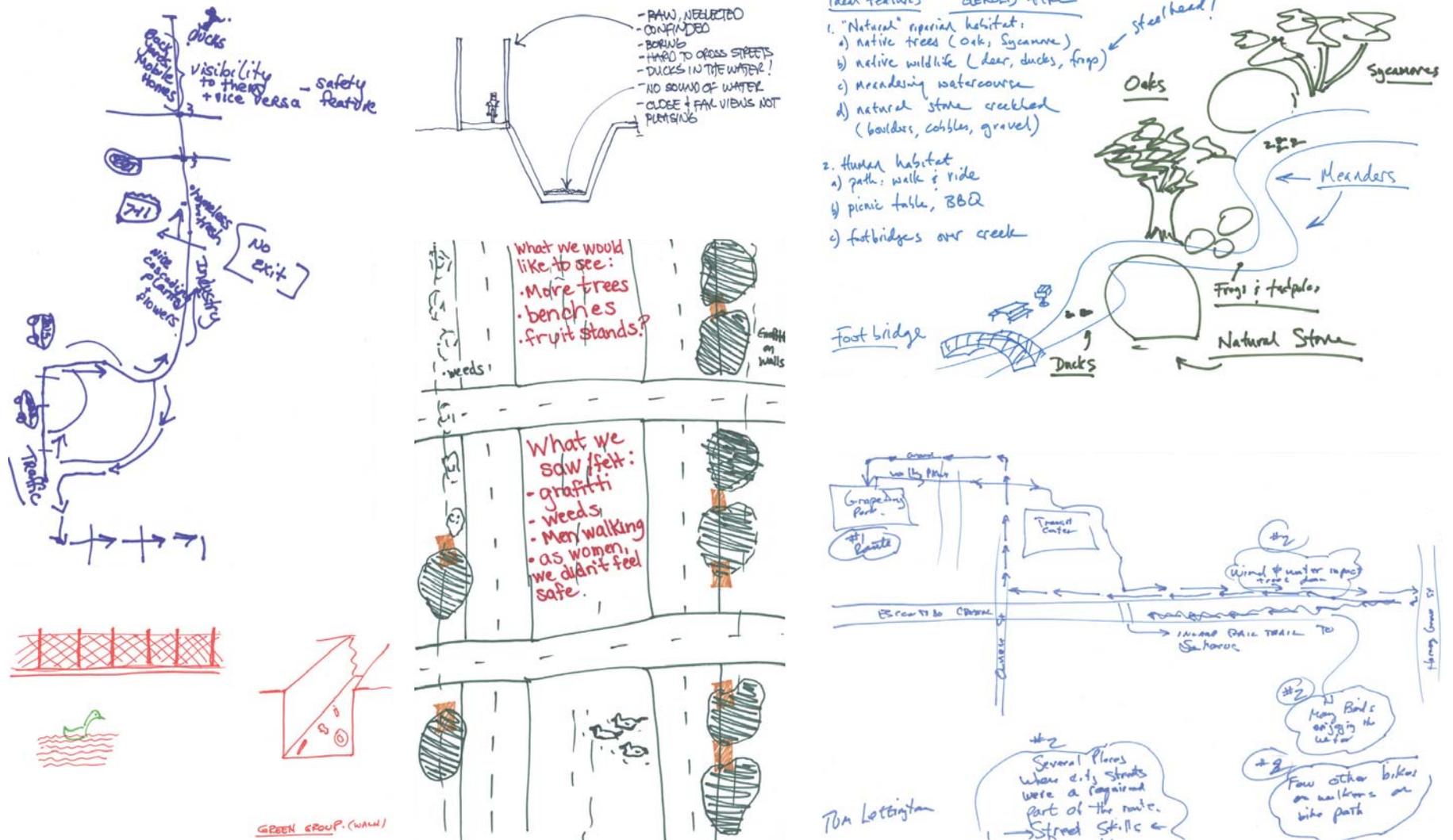


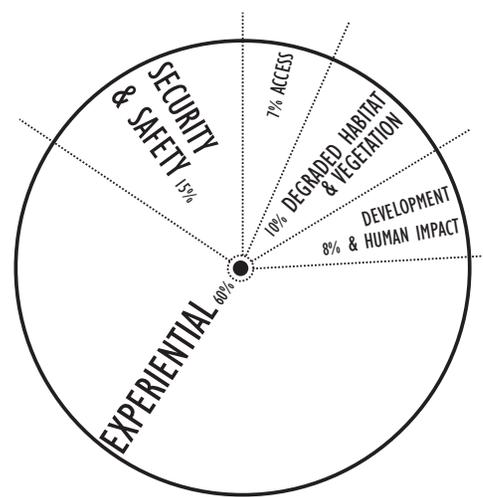
Figure A.5 Examples of Cognitive Mapping Exercise

Appendix A: Community Event: Bike Walk Survey - Results

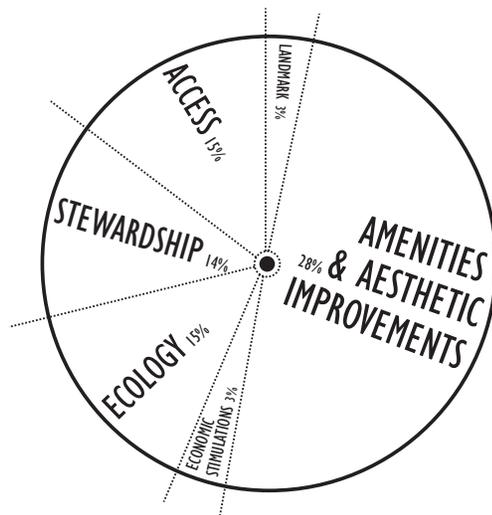
LIKES



DISLIKES



HOPES



CONCERNS

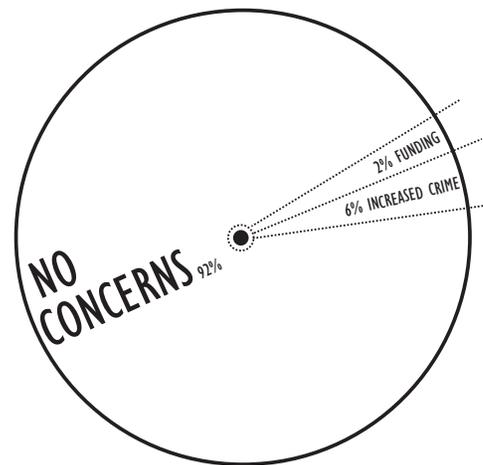


Figure A.6 Cognitive Mapping Exercise Results

Appendix A: Community Event: Bike Walk Survey - Results



Figure A.7 Walking Group Exercise Result

Likes and Dislikes Mapping Exercise

After the participants completed the cognitive mapping exercise, they participated in a group mapping exercise. In groups of five to six, participants were given large format maps of the area they biked or walked. On the maps, using colored pens, the groups described in fifteen minutes items and elements they liked about their route of exploration along the creek

and trail. Participants discussed the exploration of the creek and, using their own words or drawings, noted things they liked about the creek path in its current state. This exercise prompted many discussions about the trail's potential and opportunities for improvements in a positive atmosphere. After fifteen minutes, each group was given a new map of the same

area, and using a different color pen, mapped the elements they disliked about the creek path. The groups had a total of forty-five minutes to complete both exercises.

Information from the maps was interpreted by the design team and categorized. "Likes"

Appendix A: Community Event: Bike Walk Survey - Results



Figure A.8 West Bike Group Exercise Result

were distilled into seven distinct categories: access, destination, educational/historical, experiential (e.g. sights, sounds, smells), habitat, recreation and vegetation. “Dislikes” were distilled into five categories: access, degraded habitat/vegetation, experiential, human impact/development and security/safety. Figures A.7 to A.9 represent the coding and grouping of the compiled data. The results from the mapping

exercise highlighted what each group liked and disliked about the Escondido Creek Trail.

The results of the “likes” map (see figure A.10) imply access was the most important element of the participants experience during the tour. Many participants commented positively on the available connections to buses, trains and stores. Conversely,

access was also the most commented on element on the dislike maps (see figure A.11). Many wrote that they did not like the missing linkage (between Grape Day Park and the Escondido Transit Center) along the creek trail, the limited access to the trail or the locked gates. Overall, more dislikes about the creek were noted by the groups than likes.

Appendix A: Community Event: Bike Walk Survey - Results

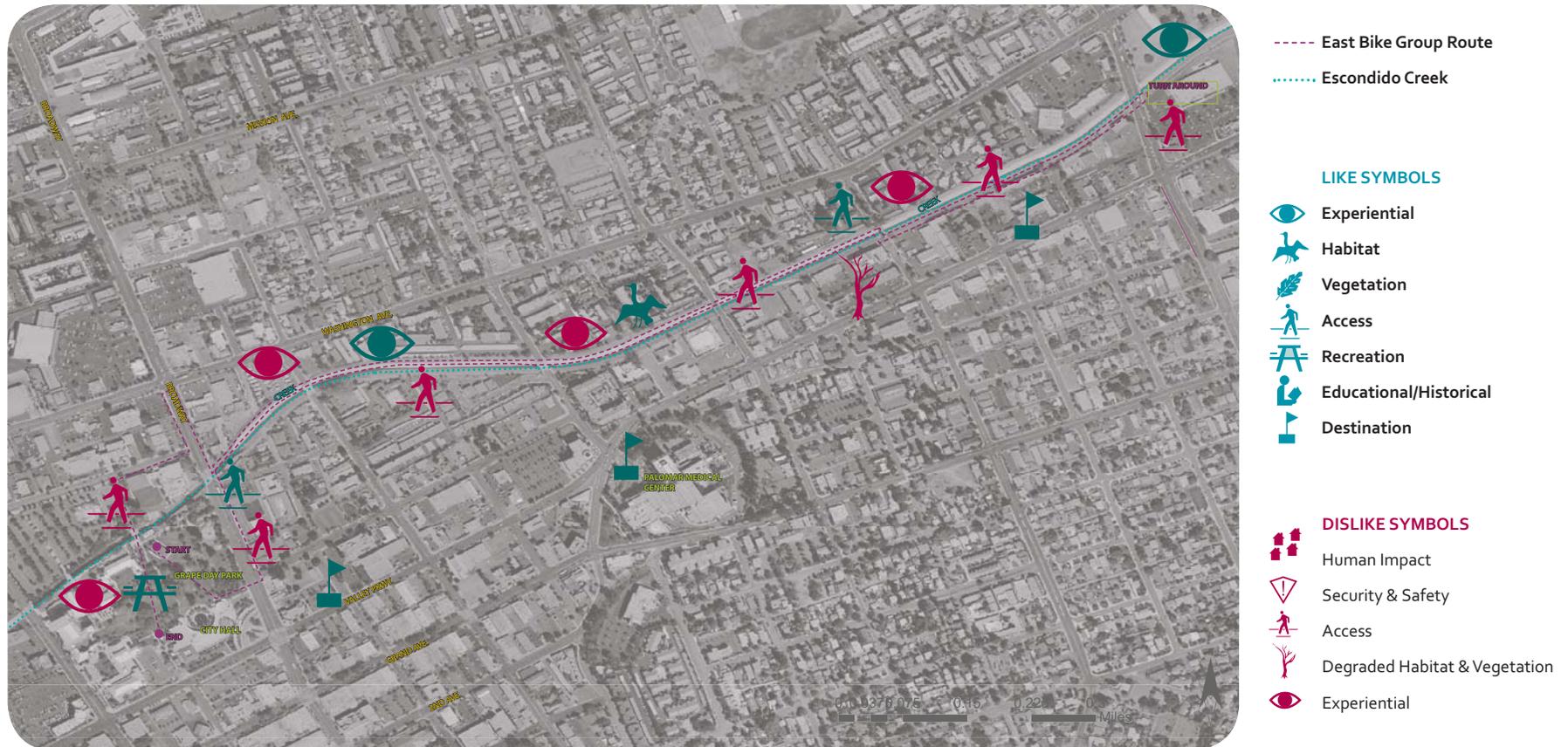


Figure A.9 East Bike Group Exercise Result

Appendix A: Community Event: Bike Walk Survey - Results

LIKES

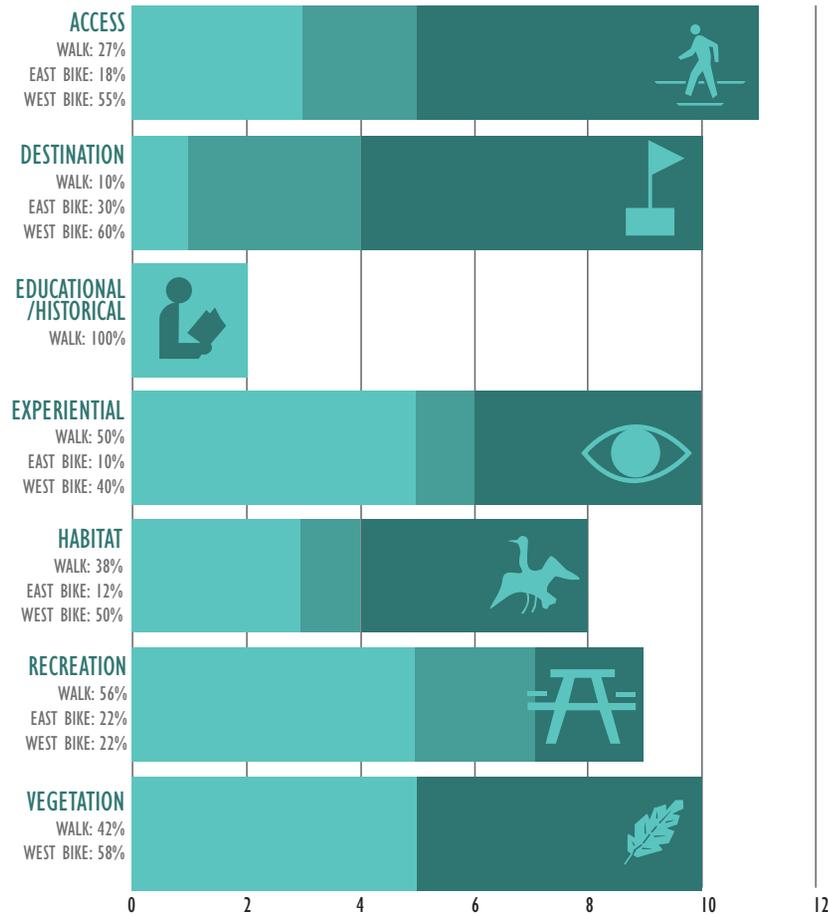


Figure A.10 Bike Walk Survey "Likes" Results

DISLIKES

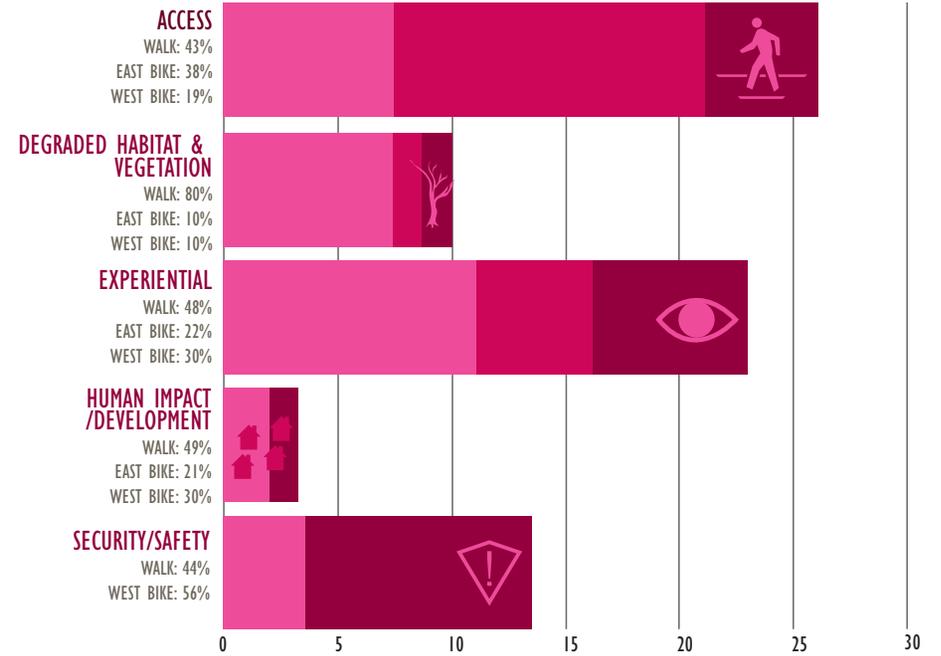


Figure A.11 Bike Walk Survey "Dislikes" Results

Appendix B: Community Event: Design Workshop - Agenda

Agenda

- A. Set-up (5:30-6:00 p.m.)
 - 1. Arrange table and chairs
 - 2. Set-up projector/laptop/posters
 - 3. Prepare food
- B. Meet and gather (6:30 p.m.)
 - A. Have people sign in and sign up for raffle
- C. Introductions
 - 1. Invite people to get something to eat and familiarize participants with restrooms, etc.
 - 2. Introduce the Escondido Design Team
 - 3. Introduce the project
 - 4. Explain the purpose of the event
- D. Presentation
 - 1. Brief presentation on previous findings
- E. Community design exercise
 - 1. Provide maps, pens, etc.
 - 2. Break into groups
 - 3. Groups pick a presenter
 - 4. Groups discuss possible amenities and issues
 - 5. Groups present findings
 - 6. Invite people to move around and look at other tables
- F. Design Surveys
 - 1. Distribute surveys to all participants
 - 2. Collect surveys after 15 minutes
- G. Raffle drawing
- H. Wrap-up
 - 1. Thank everyone for coming out
 - 2. Present next steps of the project
 - 3. Clean-up



Figure A.12 Presentation During Community Design Workshop Event

Source: Escondido Creek Design Team

Appendix B: Community Event: Design Workshop - Flyers



Join Us for a night of design

The **Revealing Escondido Creek** team from Cal Poly Pomona's Department of Landscape Architecture will be hosting our second event, a **COMMUNITY DESIGN WORKSHOP** for the Escondido Creek Trail. You are invited to come along and discuss opportunities the creek trail can provide to everyone. Please come help us reimagine the Escondido Creek Trail!

When?

Event: 6:30PM-8:00 PM.
Wednesday, March 24th, 2010

Please RSVP to:

www.revealthecreek.com/rsvp.html
Have questions, comments, or concerns?
Send an email to: info@revealthecreek.com



Visit:
www.revealthecreek.com

Who's Invited?

Bicyclists, walkers, joggers, and residents of Escondido.
Open to people of all ages!



What to Bring:

Yourself, and/or your friends and family
Dinner & Drinks provided!

Where?

Meet at the Mitchell Room at City Hall.



Acompañamos a una noche de diseño

El **Equipo del Arroyo Revelador de Escondido** del Departamento de Arquitectura del Paisaje de Cal Poly será el anfitrión del segundo evento, un **TALLER COMUNITARIO DE DISEÑO** para el Arroyo de Escondido. Usted está invitado a unirse a nosotros y a discutir las posibilidades del arroyo para todos. Por favor venga ayudarnos a reimaginar el Arroyo de Escondido.

¿Cuándo?

Evento: 6:30 PM- 8:00 PM.
Miércoles, Marzo 24 del 2010

Por favor díganos si asistirá:

www.revealthecreek.com/bike-walk.html
¿Tiene preguntas, comentarios o preocupaciones?
Mande un correo electrónico al:
info@revealthecreek.com



Visite: www.revealthecreek.com



¿Quiénes están invitados?

Personas en bicicletas, personas caminando, personas que trotan y residentes de Escondido.
¡Para todas las edades!

¿Qué Traigo?

Ustedes mismos, sus amigos/familiares.
¡Cena y bebidas serán proveídas!

¿Dónde?

Nos encontraremos en el Mitchell Room en el Ayuntamiento de la Ciudad

MAPA DEL LUGAR

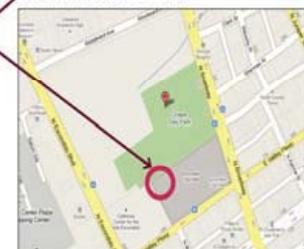


Figure A.13 Community Design Workshop Flyers (English & Spanish)

Appendix B: Community Event: Design Workshop - Analysis

Design Charrette

To distill the information on the maps, the design team categorized each image the participants chose to stick on the map according to its representation and the accompanying comments (see figure A.15). In addition, the group presentations were recorded and the recordings were viewed by the design team to identify additional information and/or comments about their design recommendations.

The following table (see figure A.16) represents the results of coding and grouping for each group. The results from the design mapping exercise highlighted what each group wanted to see or experience within the given boundaries indicated on the map (between Ash Street and Harding Street along the Escondido Creek Trail). There are a total of forty-five different amenities and features. They were categorized based on content into seven categories: stewardship & awareness, access & connection, safety, improving the ecology, beautification & comfort, program & activities and amenities. Each amenity or feature was ranked according to its frequency of occurrence. For example, all seven groups expressed interest in having decorative gates/fences along the trail; thus, it has a total of seven points. Only group five wanted to have access to creek water; therefore, access to creek water was assigned one point.

The design team divided the amenities and features into a high priority group and a low priority group. The high priority group had at least four or more points and the low priority group had three points or lower. Some of the amenities and features categorized in the high priority group were picnic tables, signage, bench, bridge, and dog amenities. With this information,



Figure A.14 Community Design Workshop

the design team had a better understanding of what the community wanted to see in the design for the Escondido Creek Trail.

Source: Escondido Creek Design Team

Appendix B: Community Event: Design Workshop - Maps



Group 1



Group 2



Group 3



Group 4



Group 5



Group 6

Figure A.15 Design Charrette Map Examples

Appendix B: Community Event: Design Workshop - Matrix

		Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Total
Stewardship & Awareness	Stewardship/Adopt-A-Lot/Fundraiser				1	1		1	3
	Signage		1	1	1	1		1	5
Access & Connection	Access to creek water*					1			1
	ADA access trail		1						1
	Remove fencing					1			1
	Underpass*	1							1
	Bridge	1	1	1	1			1	5
Safety	Safe crosswalks/signals				1	1		1	3
	Police involvement		1	1	1		1	1	5
	Divided bike & ped trail	1	1				1	1	4
Improving the Ecology	Capture rainwater*	1							1
	Diversion stream*						1		1
	Levy*						1		1
	Wetlands*						1		1
	Native plant garden					1	1		2
	Wildlife						1	1	2
	Natural creek/widen/meander	1	1	1		1	1		5
Beautification & Comfort	Shade					1	1		2
	Vines on fence		1				1	1	3
	Mural (children art tiles)				1	1	1	1	4
	Additional vegetation	1	1		1	1	1		5
	Decorative gate/fence	1	1	1	1	1	1	1	7
Program & Activities	Dog park*		1						1
	Vending carts*		1						1
	Mixed use	1						1	2
	Art display	1				1		1	3
	Community garden		1		1			1	3
	Exercise stations					1	1	1	3
	Outdoor café/restaurant	1				1		1	3
	Soccer field			1	1	1			3
	Pocket park		1						1
	Playground		1	1			1	1	4
	Outdoor fitness station		1			1	1	1	4
Amenities	Drinking fountain		1						1
	Lighting		1						1
	Stepping stones	1							1
	Bike racks					1	1		2
	Restroom				1	1			2
	Rest stop	1		1				1	3
	Terrace*	1			1	1			3
	Trash receptacle			1	1	1			3
	Dog amenities		1	1		1		1	4
	Bench	1	1	1	1			1	5
	Picnic tables	1	1	1	1	1	1		6
	Interactive fountain						1		1

* Amenities and features that were suggested by the participants but were not part of the images provided.

Figure A.16 Community Design Workshop Results

Appendix C: Community Survey

The California State Polytechnic University 606 Studio is a design team made up of faculty and third-year Landscape Architecture Masters students. We have been contracted by the City of Escondido to create a vision plan for the Escondido Creek and trail. A vision plan examines all the possibilities and issues of a landscape site and develops options for what could be done on the site in both the short and long term.

Community participation is a vital part of the process of re-imagining the Escondido Creek trail. Thank you for your participation and taking the time to complete this survey.

- Do you currently use the Escondido Creek trail? Yes No
- Would you use a redesigned Escondido Creek trail in the future? Yes No
- How would you use a redesigned trail? _____
- Please briefly describe the Escondido Creek corridor: _____
- What do you think the impact of redesigning the Escondido Creek trail could be? _____
- What do you think the most important issues are with the Escondido Creek trail?
Please rank them from 1 to 7 with 1 being the most important and 7 being the least important.

Environmental Issues _____

Safety _____

Visitor Experience _____

Amenities _____

Wildlife/Habitat _____

Water Quality _____

Aesthetics _____

Please place an X in the box to indicate the importance of the item to you.

	Not at all Important	Not Important	Neutral	Important	Very Important
	1	2	3	4	5
Safe routes to school	<input type="checkbox"/>				
Equestrian trail	<input type="checkbox"/>				
Dog clean-up stations	<input type="checkbox"/>				
Shopping/entertainment facility	<input type="checkbox"/>				
Wildlife/bird watching areas	<input type="checkbox"/>				
Access to the creek/water	<input type="checkbox"/>				
Connections to regional trails	<input type="checkbox"/>				
Connections to neighborhoods	<input type="checkbox"/>				
Water features	<input type="checkbox"/>				
Fishing areas	<input type="checkbox"/>				
Educational/interpretive signage	<input type="checkbox"/>				
Native plant garden	<input type="checkbox"/>				
Drinking fountains	<input type="checkbox"/>				
Separate walking/biking path	<input type="checkbox"/>				
Lighting	<input type="checkbox"/>				
Police bicycle patrols	<input type="checkbox"/>				
Bridges over creek	<input type="checkbox"/>				
Community gardens	<input type="checkbox"/>				
Water recreation	<input type="checkbox"/>				
Trees/turf/shrubs	<input type="checkbox"/>				
Benches	<input type="checkbox"/>				
Garbage cans	<input type="checkbox"/>				
Picnic areas	<input type="checkbox"/>				
Sports fields	<input type="checkbox"/>				
Community art displays	<input type="checkbox"/>				
Spaces for Community Events	<input type="checkbox"/>				
Other _____	<input type="checkbox"/>				
Other _____	<input type="checkbox"/>				

Figure A.17 Community Survey Sample Questions

Appendix D: Design Materials - Plant Palette

Plants to Consider for Landscape Resiliency

The hills surrounding Escondido are a reminder of the plant communities—coastal sage scrub, chaparral, and oak woodlands—that flourished in the Hidden Valley prior to urbanization and the replacement of the native plants with exotic species from around the globe (Ellis et al. 2009). Covered by the coastal sage scrub plant community, the vegetation of these hills can serve as an inspiring catalog of plants that may be appropriate for planting efforts in the valley

along the Escondido Creek Trail. Coastal sage scrub is distinguished by aromatic, resilient species such as sages, buckwheat, and ceanothus. Generally smaller in stature, these plants are well adapted to the climatic conditions of Escondido and would have been historically found in the hills and the valley of Escondido. Coastal sage scrub vegetation prefers reduced summer water and some species prefer no summer water at all. Several species are “pioneer plants”—the first plants to grow after a disturbance to an area such as fire or construction grading.

It will take the right species to survive the conditions of the right-of-way along the Escondido Creek Trail. Much of the topsoil was displaced by the channelization process, irrigation is not available, and conditions are dry. The plants themselves must have relatively shallow roots to prevent disturbing the sub-grade utility lines, and the plants’ size and shape must not provide concealment for criminal activity. Given the proximity to the stream, it is important that potentially invasive species be avoided so as not to spread seeds via the creek to downstream habitat. Funding to care for plants along the channel is



Figure A.18 **Black sage** *Salvia mellifera*

California’s most common sage, Black Sage is a shrub that tolerates drought to occasional water and is adaptable to a variety of soils. Foliage is dark green with a light underside. Bees and hummingbirds are fond of the pale blue flowers from spring to summer. Black sage is drought deciduous, surviving dry times by dropping leaves (Bornstein et al. 2007).



Figure A.19 **Bush sunflower** *Encelia californica*

This drought tolerant shrub is a gardener’s dream, attracting many pollinating insects, butterflies and bees. Bush sunflower grows to three feet tall and is covered in bright, yellow flowers for much of the year—spring to fall (Bornstein et al. 2007).



Figure A.20 **California buckwheat** *Eriogonum fasciculatum*

A plant prized for the honey that bees produce from its nectar, California buckwheat is a sub-shrub preferring well-drained soils. This plant will grow four feet tall and produces abundant pink and white blooms from March to October. In late summer to autumn the flower stalks fade to a striking rust color (Bornstein et al. 2007).



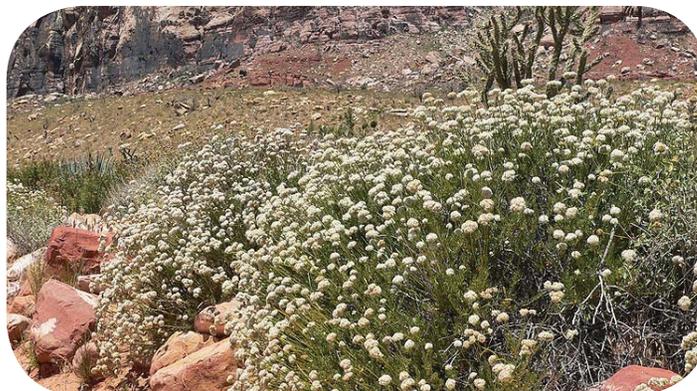
Figure A.21 **Deer weed** *Lotus scoparius*

A pioneer plant and a nitrogen fixer, deer weed is as attractive as it is beneficial. Deer weed is a small shrub approximately three feet tall with small yellow flowers popular with bees and butterflies. Blooms appear from spring to summer (Ellis et al. 2009).

Appendix D: Design Materials - Plant Palette

unlikely. Moreover, given the urban setting, selected plants must offer aesthetic appeal.

The chart suggests a few species to consider along the creek. Native to the watershed, these plants all flourish in the coastal sage scrub plant community. Historically, the corridor would have been lush with riparian plants; however, because of the lack of contact between the right-of-way and the water, riparian plantings require supplemental water to thrive and, thus, do not meet the resiliency criteria.



Source: Stan Shebs

Figure A.22 California buckwheat



Source: Escondido Creek Design Team

Figure A.23 Carmel mountain lilac



Figure A.24 Golden yarrow
Eriophyllum confertiflorum

Golden yarrow is a drought tolerant perennial growing to two feet tall. This plant has striking lacy silver foliage and bold yellow flowers. Golden yarrow is a fast growing species good for a dry, well-drained spot (Bornstein et al. 2007).



Figure A.25 Mountain lilac
Ceanothus oliganthus

A large shrub, mountain lilac blossoms into a riot of tiny blue flowers attractive to birds. This species will grow to eight feet tall and should be considered for locations which will accommodate its stature. Mountain lilac prefers well-drained soils but is adaptable, and has low water needs (Bornstein et al. 2007).



Figure A.26 Silver bush lupine
Lupinus albifrons

This spring blooming plant shoots up a vibrant purple flower spike in spring. Silver bush lupine prefers well-drained soils, is drought tolerant, semi-deciduous, and three feet tall. Seeds, leaves and stems are toxic to humans or pets if consumed—this should not be planted near children's play areas or in dog parks (Bornstein et al. 2007).



Figure A.27 Sticky monkeyflower
Mimulus aurantiacus

A perennial shrub roughly three feet tall, sticky monkeyflower is covered in brightly colored orange flowers in spring. A drought deciduous shrub, it survives by dropping its leaves. This species is a favorite of hummingbirds. Common checkerspot and buckeye butterflies use it for forage (Bornstein et al. 2007).

Source: From Left to Right; National Park Service, Joe Decruyenaere, Stan Shebs, National Park Service, Curtis Clark, Stan Shebs, National Park Service

Appendix D: Design Materials - Target Species

Target Species to Consider for Biodiversity

The City of Escondido has a diverse population of animal species, particularly bird species. These species are concentrated in the hills around the developed areas, but also occur along the waterways flowing through the city. City development tends to reduce species' thriving success because land is paved over and native habitat disappears. This

project intends to save and protect existing species while also introducing additional animal species native to Southern California. To establish and encourage these animal species, the native flora must be present to support their habitat, mating cycles, and survival rate. Because the project's focus is along the Escondido Creek, it will enhance habitat by introducing native plant species that can support animals and their native way of life. In turn, this will create a more biodiverse flora and fauna

community within a developed city. Some benefits include educating residents and visitors about the importance of other species living side by side with humans, and increasing interest in an area that had little ownership or aesthetic value.

Target species must thrive in the coastal sage scrub plant community; this project encourages these resilient plants because of their preference for Escondido's climate and particular soil type.



Figure A.28 Anna's hummingbird
Calypte anna

Native to the west coast of North America, this medium-sized hummingbird is four inches long with a green-bronze back. The male has a red throat and crown. They consume sweet nectar from flowers with their long extendable tongue along with small insects caught in flight. They live in open wooded and shrubby areas (Peterson & Peterson 1990).



Figure A.29 California gnatcatcher
Poliotila californica

This threatened bird species can be indicative of the health of the coastal sage scrub plant community. The gnatcatcher is four inches in size and is often seen flying and hunting for insects through dense sage scrub growth (Mock 2004).



Figure A.30 Coast-horned lizard
Phrynosoma coronatum

The coast-horned lizard looks dangerous but is actually soft on the top and spiky on its sides and head and can grow up to four inches long. This lizard inhabits Baja California up to the Sacramento Valley. When under threat, it can shoot streams of blood out of its eyes. It is a ground dweller and lives in open chaparral/coastal sage scrub (Sherbrooke 2003).



Figure A.31 Cooper's hawk *Accipiter cooperii*

A bird of prey, this hawk lives in deciduous and open woodlands. They can also live in cities by preying on pigeon and dove; they surprise and catch prey by flying through dense vegetation. They are blue-gray with white under parts. A migratory bird, this hawk can travel all the way to Panama from Canada or California during the winter months (Sibley 2000).

Appendix D: Design Materials - Target Species

Riparian plant communities also exist along the waterways of the naturally existing landscape that have not been channelized. These include parts of the Escondido Creek southwest of Harmony Grove Road and northeast of East Valley Parkway where the creek turns from a concrete channel to a soft bottom creek.

diversity of species that can occur once the project is in place. Many additional animals would be beneficial such as butterflies, hummingbirds and other pollinators, along with insects, amphibians, and other reptiles, mammals, and birds.

The chart below gives a list of species that the project aims to attract but does not list the



Figure A.32 Least Bell's vireo *Vireo bellii pusillus*

The vireo is an endangered subspecies of Southern California and is declining because of an increase in grassland and development. This bird lives in dense riparian plant communities mainly dominated by willows and forages for insects under decaying leaf cover (Sibley 2000).



Figure A.33 Snowy egret *Egretta thula*

Throughout the year, this bird likes to search for fish in shallow water near the inland and coastal wetlands. They can be about 24 inches long and display a full white plumage during breeding season when an area on their bill turns from yellow to red (Sibley 2000).



Figure A.34 Southwestern pond turtle *Clemmys marmorata pallida*

This small turtle is around four to nine inches long and is fully aquatic with a habitat in various waterways with plentiful vegetation. It sometimes basks in the sun but will quickly dive underwater if threatened. Small aquatic animals are food sources and the turtle is active almost all year (Lemm 2006).



Figure A.35 Yuma myotis *Myotis yumanensis*

What people often call a “bat”, this yuma searches for insects, primarily moths, directly above slow flowing water just after sunset. It hibernates in caves, crevices, buildings, or under bridges and is commonly found in the Mohave and Colorado deserts (Chiroptera Specialist Group 1996).

Photo Source: From Left to Right; Matthew Field, USFWS, USGS, MDF, Don Sterba, Johnath, Christopher Christie, Barracuda

Appendix D: Design Materials - Environmentally Sensitive Materials



Source: Escondido Creek Design Team

Figure A.36 Red Stone of Lake Wohlford

In the late 1960s when the Escondido Creek was being channelized, there were discussions about the sourcing and availability of materials that would be required to complete the task. While the new century has brought about a different discussion regarding the future of the creek, any reimagining of the creek still needs to include a discussion regarding the sourcing of materials.

The choice of materials for a reimagined Escondido Creek needs to be made in the context of a future that includes reduced water resources and limited municipal fiscal resources, combined with a new appreciation for the environmental impacts of construction. The material costs of goods and supplies required to complete a task can be considered in two ways: manufacturing costs and transportation costs.

Expenses incurred in the manufacturing of materials can be reduced by considering the embodied energy of a product. This embodied energy is the amount of energy it takes to extract minerals and raw materials from the earth, transportation of the raw materials,



Source: Escondido Creek Design Team

Figure A.37 Escondido's Local Stone

and the energy used to convert the raw materials into the finished product. This lifecycle calculation can also include the energy required to bring the materials to market as well as resources required to dispose of the material (Heartland Greensheets 2002). Also included in the manufacturing costs are the costs of processing the materials required for production. By minimizing the amount of processing required or by using materials that are minimally processed these processing costs can be reduced.

Transportation costs can also be a significant cost to a project. The energy expended to ship and handle a material or a product can outweigh the energy required to produce the product (Thompson & Sorvig 2000). Obtaining materials locally can reduce these non-productive expenses while helping support local economies. The use of locally-sourced products can also reduce the amount of pollution created during the transportation of building materials by reducing green house gas emissions that cause health problems (Thompson & Sorvig 2000).

Appendix D: Design Materials - Environmentally Sensitive Materials



Figure A.38 Local Stone Used to Direct Water

Ways to Reduce Environmental & Construction Costs

Utilizing wood or stone as opposed to plastic or metal is an effective way to reduce the embodied energy of a project (Hopper 2007). For example, the embodied energy of aluminum is 227-342 megajoules per kilogram (MJ/kg), nearly nine times that of wood, which has an embodied energy of roughly 25 MJ/kg (Smil 1994). Obtaining construction materials locally reduces not only the monetary costs, but the

environmental impact of transportation costs as well. For example, ground transportation of a single ton of a building material for one mile typically uses between 2000 and 6000 BTUs, while transporting that same amount of material by air easily results in twenty-times the energy expense (Thompson & Sorvig 2000).

When available and appropriate, the use of salvaged or reclaimed materials can significantly reduce both environmental and construction



Figure A.39 Recycled Bicycle as a Flower Container

costs. For example, salvaged concrete rubble can be patched together and repurposed for use as a new paved surface or walkway, while used tires can be used in a variety of applications (Thompson & Sorvig 2000).

A new vision for the Escondido Creek can also include new ways of thinking about the use of materials and a new appreciation for the hidden costs of construction projects. Using locally-sourced material can reduce the carbon footprint of a construction project from artwork to paving to plants, as well as celebrate the local character of Escondido by using materials indigenous to the area, reflecting the culture of the neighborhood.

Source: Escondido Creek Design Team

Source: Escondido Creek Design Team



Figure A.40 Revealing Escondido Creek Homepage (www.revealthecreek.com)

Appendix E: Website (www.revealthecreek.com)

Several members of the public spoke out in support of the vision and all five council members expressed excitement in the Creekwalk Vision. Conversation is shifting from discussing impediments to talking about next steps.

This vision plan has come to fruition through the efforts of many dedicated and visionary community members. The design team thanks the residents of Escondido and all who have participated in this project for their passion and commitment to the creek, the trail, and the community.

To watch the city council presentation video, please [CLICK HERE](#). Scroll down and click on item #19 "Presentation by Cal Poly" to skip directly to the presentation.

To download the Escondido Creekwalk Vision presentation slides, please [CLICK HERE](#).

To save the presentation slides to your computer, please right [CLICK HERE](#) with your mouse and choose 'save link as'.

About the Project

Revealing Escondido Creek aspires to create a new vision of the creek by the community and residents of the region. The Escondido Creek, through the increased participation of the community, can become a functional and aesthetically pleasing recreation and transit corridor that acts as an asset to its community and its environment.

The Escondido Creek Trail is an underutilized Class I bike path that follows the course of the channel through the center of the city of Escondido. The bike path holds great potential for the city of Escondido and the larger region to be a main artery in a larger system of pedestrian and bicycle corridors.

The vision of **Revealing Escondido Creek** is to increase public access, address issues of public safety and facilitate increased community awareness of the Escondido Creek and Trail.

Figure A.41 Revealing Escondido Creek Homepage (www.revealthecreek.com)

Appendix F: Media

Sep 5, 2010 - San Diego Union-Tribune

Bouquet to the Escondido Creek kids
<http://www.signonsandiego.com/news/2010/sep/05/bouquet-escondido-creek-kids-brick-collage-candida/>

August 30, 2010 - San Diego Union-Tribune

Makeover Plans for Escondido Creek Start to Flow
<http://www.signonsandiego.com/news/2010/aug/30/makeover-plans-for-escondido-creek-start-to-flow>

August 18, 2010 - North County Times

City Council lauds creekwalk revitalization project
http://www.nctimes.com/news/local/escondido/article_65a4c7ca-edb5-52c3-86c6-2b42576c57c6.html

Feb 13, 2010 - North County Times

Residents brainstorm creek possibilities
http://nctimes.com/news/local/escondido/article_05f1634b-9ddc-549b-98a0-8c91495c76b4.html

Feb 12, 2010 - North County Times

Grad Students' creek, trail study still under way
http://www.nctimes.com/news/opinion/commentary/article_47910ad5-3d04-58a4-9ba6-7935d8765e9a.html?mode=story

Feb 9, 2010 - North County Times

Bike or walk city's flood channel
http://nctimes.com/news/local/escondido/article_fb538bc3-fc86-5ceb-8987-69e6298ae70f.html?mode=story

Feb 5, 2010 - North County Times

Creek improvements can't gut creek capacity
http://www.nctimes.com/news/opinion/commentary/article_2a937c29-c3ed-567d-a00a-69c1cec11686.html

Jan 28, 2010 - North County Times

Hopes up for creek's renewal
http://www.nctimes.com/news/opinion/columnists/mercurio/article_37ec3c9b-f3d5-5bc0-9030-31fdf040de49.html

Jan 22, 2010 - San Diego Union-Tribune

Students' assignment: Turn blight to beauty
<http://www.signonsandiego.com/news/2010/jan/22/students-assignment-turn-blight-beauty/>

Jan 21, 2010 - North County Times

Business leaders embrace creek walk idea, suggest parks and a pond
http://www.nctimes.com/news/local/escondido/article_602be258-8722-5554-b434-d618525938b5.html

Dec 13, 2009 - San Diego Union-Tribune

Escondido eyesore doubles as defender
<http://www.signonsandiego.com/news/2009/dec/13/escondido-eyesore-doubles-defender/>

Dec 12, 2009 - San Diego Union-Tribune

Let a creek run through it
<http://www.signonsandiego.com/news/2009/dec/12/let-creek-run-through-it/>

Dec 7, 2009 - North County Times

Detailed study of 'river walk' proposal to begin this winter

<http://www.nctimes.com/news/local/escondido/1cdddc4-f623-50ce-8ed5-873d56665eb0.html>

Oct 24, 2009 - San Diego Union-Tribune

Changing Escondido's neglected creek
<http://www.signonsandiego.com/news/2009/oct/24/changing-escondidos-neglected-creek/?opinion>

Sept 30, 2009 - North County Times

Proposed river walk gaining momentum
http://www.nctimes.com/news/local/escondido/article_c22a654f-95bc-542c-8569-140a8c959f8f.html

April 25, 2009 - North County Times

Diaz proposes lush "river walk" along creek, bike path
http://www.nctimes.com/news/local/escondido/article_a873062d-0604-5dbf-b6d6-fe78bb120b00.html



Figure A.42 Design Team

From Left to Right: Jason Andrews, April Marshburn Miller, Katherine McNiell and Karen Chieng

Source: Escondido Creek Design Team

Appendix G: 606 Studio & Revealing Escondido Creek Design Team

The California State Polytechnic University 606 Studio is a design team made up of faculty and third-year Landscape Architecture Masters students. The Studio promotes the application of advanced methods of analysis and design to address serious and important ecological, social, and aesthetic issues related to urban, suburban, rural and natural landscapes with a particular emphasis on preserving and restoring natural systems.

The academic studio environment offers a unique opportunity for graduate students to explore issues and possibilities at a variety of levels. The students, with faculty direction and participation, carry out the projects—including the tasks of research, analysis, planning and presentation. Because the Studio is part of an educational institution, the projects that come from it must maintain academic integrity, display technical and professional expertise, advance sustainable land management practices and theory, and be grounded in reality. The projects are also required to address significant issues concerning resources and the physical environment with broad implications beyond the boundaries of the project site and promise to result in significant benefits to the general public.

The schedule of 606 projects is roughly fixed by the academic year. Project definition and organization for this 606 will begin in Fall 2009. Work should be completed and final reports submitted and approved by Spring 2011, unless parties agree on a different schedule. The client agency for the project will provide funding to cover the estimated cost of completing the project. Contractual agreements are undertaken through the Cal Poly Pomona Foundation. All materials produced by the studio are owned by the University as per the University Copyright Policy. For more information on the 606 Studio, please contact the Cal Poly Pomona website at http://www.csupomona.edu/~la/mla_606.html#projects.

April Marshburn Miller began her study of three-dimensional form exploring the nuances of textiles and received a Bachelor of Arts in Consumer Studies and Clothing Design from San Francisco State University. However, her concern for environmental degradation and her interest in human engagement with the landscape compelled her to shift her professional direction. Intrigued by the tapestry landscape architecture weaves between creative expression and pragmatism + the land and human cultures, she is pursuing a Masters of Landscape Architecture at Cal Poly Pomona. Finding inspiration through service, her volunteer experiences have included domestic and international efforts in food security, habitat restoration, and urban forestry. A California native, she has lived across the state in rural, suburban, and urban landscapes and has traveled to over 30 countries. These experiences have profoundly shaped her perspective, giving her a balanced appreciation for the vibrant rhythm of a city and the serenity of a wild landscape. Her interests lie in creating environmentally, socially, and economically sustainable human landscapes which restore habitat and regenerate natural resources. April is currently working to improve public access and protect the Arroyo Seco, a stream flowing through Pasadena, as a Parks Planning Assistant with the City of Pasadena.

Jason Andrews is a 3rd year Masters of Landscape Architecture candidate at California State Polytechnic University, Pomona. He received his B.S. from Eastern Michigan University with a major in Mechanical Engineering Technology. Jason grew up in a small suburb outside Salt Lake City, Utah and spent formative time between high school and college exploring the canyons and rivers of the Southwest. This experience galvanized an appreciation of the harsh fragility of the desert and continues to inform an ongoing concern over land and water use in the West. Prior to graduate school, Jason worked as a residential construction project manager in Ann Arbor, MI and at a landscape architecture firm in Southern California.

Karen Chieng is currently pursuing her Masters degree in Landscape Architecture at California State Polytechnic University at Pomona. She received a Bachelor of Science degree in Business Administration and minor in Asian Studies from the University of California, Riverside. Prior to entering graduate school, Karen worked as a marketing coordinator in Irvine, California where she gained valuable experience in planning, strategizing and executing tradeshow and major events. While attending graduate school, Karen works at OC Parks where she is exposed to parks and trails design and management. Her interests include urban revitalization, sustainable design, habitat restoration and international development.

Katherine McNiel is a 3rd year Masters candidate in Landscape Architecture at Cal Poly Pomona. She received her Bachelor of Arts from the University of California, Berkeley in Psychology with two minors; one in Fine Arts and the other in Landscape Architecture. After taking landscape design and identification courses at Merritt College in Oakland, California, she was excited about pursuing a Master's in Landscape Architecture. She recently traveled to Italy for the Landscape Architecture Study Abroad Program which helped solidify her design skills in culturally significant landscapes and help improve her sketching skills. She has also travelled abroad to Canada, the Czech Republic, England, France, Germany, Greece, Guatemala, Holland, Ireland, Italy, Scotland, Spain, and Vietnam. Her proficient work experience includes professional gardening and installation, drafting and design work for a Landscape Design/Build firm in San Jose, and assistant teaching for a Landscape Design and Maintenance course at Washington State University. Her interests involve food, nature, and swimming. As a result, she loves implementing edibles and figuring out how to incorporate water for play in her designs. Katherine's projects focus on ecological conservation, environmental and community planning, sustainable landscapes, and urban revitalization.

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Abstract

The Escondido Creek is a stream flowing through the northern San Diego County cities of Escondido, San Marcos, Encinitas, and Solana Beach. Both wild and urban, the stream passes through industrial, residential, agricultural, commercial, and natural landscapes as it gently flows to the Pacific Ocean. An upper reach of the Escondido Creek, within the limits of the City of Escondido, as well as its tributary Reidy Creek, were channelized in the 1960s to provide flood control. Though the channel achieved security against flood risk, the concrete compromised the ecological integrity of the stream and severed the community's awareness of the creek, rendering the creek channel a forgotten landscape.

In the late 1990s, a six-mile bike path was installed along the creek channel maintenance right of way to enhance the potential for cross city connectivity.

With this improvement, the residents of Escondido started returning to the stream's edge. A budding grassroots movement took hold as community members began to ask if this riparian landscape could fulfill more than flood control and campaigned to remind Escondidans that the stream is integral to the health of the watershed and downstream environment.

Recognizing the potential to revitalize the creek and neighboring landscape, the *Revealing Escondido Creek Vision Plan* was commissioned by the City of Escondido to examine the issues along the creek and propose solutions. Including the community in the visioning process was a priority to the city and the vision plan design team. The community's interest and involvement continued to amplify as the project progressed.

Building upon the community input, the *Revealing Escondido Creek Vision Plan* provides an array of solutions and design recommendations tailored to the fluctuating needs of the city and community. Suggestions in the vision plan range from inexpensive, near term ideas to more elaborate solutions to be implemented over time. The *Revealing Escondido Creek Vision Plan* identifies eight sites and series of design suggestions developed to encourage use of the trail and inspire interaction and stewardship of the Escondido Creek, stitching the seven miles of the creek into the continuous Escondido Creekwalk.



