

DRAFT

**Biological Resources Technical Report for
2351 Meyers Avenue, Escondido, California**

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OnPoint Development

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1 Introduction

Dudek has prepared this Biological Resources Technical Report (report) for the 2351 Meyers Avenue Project (Project) in support of Project review by the City of Escondido (City) in the California Environmental Quality Act (CEQA) evaluation process, including whether the project qualifies for a categorical exemption. It is also intended to support environmental review by other applicable regulatory resource agencies as needed.

The purpose of this report is to provide the methods and results of the vegetation mapping, jurisdictional delineation, and literature review. This report includes an impact analysis based on survey results and federal, state, and local regulations, as well as conditions to avoid and minimize impacts to biological resources.

1.1 Project Description

The proposed Project is the development of a vacant five-acre site located at 2351 Meyers Avenue between E. Barham Drive and Corporate Drive at the westerly City boundary in the City of Escondido, California. The Project site is located on the 7.5-minute San Marcos quadrangle map on Section 18, in Township 12 South, Range 2 West of the San Bernardino Base and Meridian. It comprises Tax Assessor parcel number – APN 228-312-05-00. The site is General Plan designated LI-Light Industrial and Zoned PD-I – Planned Development – Industrial.

The Project includes a Plot Plan and Design Review to construct a 68,900 square-foot unrefrigerated warehouse building comprised of a 10,800 square foot office on the first floor, a 47,300 square foot manufacturing/warehouse space on the first floor, a 10,800 square foot office on the mezzanine, and 154 parking spaces. An ingress/egress driveway will provide access to the Project off Meyers Avenue.

The starting date of construction is November/December 2021, with construction ending in August/September 2022. The Project is expected to be operational the 3rd quarter of 2022. Approximately 8,000 cubic yards of export, not factoring in construction spoils from trenching operations, is expected.

1.2 Project Location

The Project site is located in the City of Escondido. The site is bordered by the City of San Marcos to the west (Figure 1, Project Location). The 4.95-acre Project site is composed of one undeveloped lot (APN 228-312-05-00). The project site is located approximately 0.25 mile southeast of Highway 78, 1.5 miles east of the California State University San Marcos, and approximately 1.5 miles west of Interstate 15. Specifically, the project site is west of Meyers Avenue, and south of Barham Drive. The site is located on the U.S. Geological Service (USGS) 7.5-minute San Marcos quadrangle map on Section 18; in Township 12 South; Range 2 West of the San Bernardino Base and Meridian.

1.3 Land Uses

The on-site land use is currently unoccupied and disturbed from previous grading and past agricultural use. The site is bordered primarily by residential neighborhoods to the west and commercial development to the east, north, and south. The Sunrise Specific Plan project is located west of this parcel.

1.4 Soils

The U.S. Department of Agriculture Soil Survey mapped most of the Project area as underlain by the following soil types: Fallbrook sandy loam (FaB), 2% to 5% slopes; Vista coarse sandy loam (VsC), 5% to 9% slopes; and Vista coarse sandy loam (VsD), 9% to 15% slopes (USDA 2020) (Figure 2, Soils).

1.5 Watersheds and Hydrology

The Project area is located within the Carlsbad Hydrologic Unit. The Carlsbad Hydrologic Unit (904.00) is a triangular area covering approximately 210 square miles (SDRWQCB 2002). This hydrologic unit is bordered by San Luis Rey Hydrologic Unit to the north and San Dieguito Hydrologic Unit to the east and south. The Project area is located within the San Marcos Hydrologic Subarea.

The Carlsbad Hydrologic Unit includes one small coastal lagoon (Loma Alta Slough) and four major coastal lagoons, including Buena Vista, Agua Hedionda, Batiquitos, and San Elijo (SDRWQCB 2002).

2 Methods

2.1 Literature Review

Dudek conducted a review of the existing biological resources and species within the vicinity of the survey area using the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CDFW 2020a), the California Native Plant Society Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2020), the San Diego Natural History Museum's Plant Atlas (SDNHM 2020), Mammal Atlas (Tremor et al. 2017), and Bird Atlas (Unitt 2004), and the San Diego Geographic Information Source (SanGIS). Dudek obtained special-status species occurrence data from the above sources by querying records within the USGS 7.5-Minute Quadrangle Map and the 8-Quadrangle Maps surrounding the Project site, including the Morro Hill, Bonsall, Pala, San Luis Rey, Valley Center, Encinitas, Rancho Santa Fe, and Escondido USGS Quadrangle Maps. In addition, Dudek reviewed the following available resources to assess the potential for biological and wetland resources within the Project site and vicinity:

- List of potentially occurring listed species generated from a review of the USFWS's Information for Planning and Consultation (IPaC) Trust Resources Report (USFWS 2020a) list of federal and threatened species
- USGS National Hydrography Dataset (USGS 2020)
- USFWS National Wetlands Inventory (USFWS 2020b)
- U.S. Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey (USDA 2020)
- *Public Review Draft Escondido Subarea Plan, Implementing the Multiple Habitat Conservation Program* (Ogden and CBI 2001)

Prior environmental documents prepared for the Project provided information on biological resources and constraints previously identified. The documents reviewed include the following:

- *Biological Technical Report for the Meyers Parcel* (REC Consultants Inc. 2005)
- *Preliminary Jurisdictional Wetland Delineation, Review, and Update, Meyers Avenue Site* (Kleinfelder West Inc. 2007)

2.2 Field Surveys

2.2.1 Vegetation Community and Land Cover Mapping

Dudek conducted vegetation mapping to characterize natural vegetation communities, including habitats for special-status species, within the Project area. The field mapping was consistent with the *Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities* (CDFG 2009), and vegetation communities were identified by keying them out in the *Manual of California* (Sawyer et al. 2009),

resulting in a vegetation map that can be “cross-walked” to North County Multiple Habitat Conservation Plan (MHCP) vegetation communities.

Vegetation mapping was conducted within the Project site in July 2017 in conjunction with the initial reconnaissance-level surveys for sensitive resources. Mapping was performed in the field through interpretation of field maps with a high-quality aerial photographic basemap. In 2020, Dudek revisited the site to verify the vegetation mapping reflected the current conditions.

2.2.2 Focused Surveys for Coastal California Gnatcatcher

In 2018, Dudek conducted focused surveys for coastal California gnatcatcher (*Poliioptila californica californica*) for the adjacent Sunrise Specific Plan project. The survey included the southern portion of the Project site just north of the ornamental area (see Appendix A).

2.2.3 Jurisdictional Delineation

2.2.3.1 Previous Jurisdictional Delineations

REC and Kleinfelder conducted previous delineations on site. In the REC Consultants, Inc. (2005) report, two jurisdictional features were classified as fresh-water seeps totaling 0.55 acre. It should be noted that the REC report was conducted just after the 2004/2005 winter which was one of the wettest winters on record.¹ The Kleinfelder West, Inc. (2007) report identified the features mapped by REC Consultants but within a substantially reduced area totaling 0.07 acre and concluded they were non-jurisdictional. Kleinfelder split the two features into three, due to a topographical and vegetative break (cutslope) within the southern feature. Dudek analyzed these same three features separately in 2017.

In 2017, Dudek performed a jurisdictional delineation to classify “waters of the United States and State,” including wetlands, under the jurisdiction of the U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB). The USACE jurisdictional wetlands delineation was conducted in accordance with the *1987 U.S. Army Corps of Engineers Wetland Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008). Hydrology, vegetation, and soils were examined at potential wetland sites and were recorded on wetland determination data forms. The wetland indicator status of plants observed at wetland sampling locations on site were determined based on the *Arid West 2016 Regional Wetland Plant List* (Lichvar et al., 2016). The extent of wetland features were determined in the field by collecting data using a portable Global Positioning System (GPS) unit.

Data stations were placed in locations deemed most likely to support wetland indicators due to localized topography, vegetation patterns, and previous delineation results. Data Stations 2017-1 and 2017-2 correspond to F3 as reported in Kleinfelder (2007). Data Station 2017-3 corresponds to F2, and Data Stations 2017-4 and 2017-5 correspond to F1 (Kleinfelder 2007).

¹ <https://www.currentresults.com/Yearly-Weather/USA/CA/San-Diego/extreme-annual-san-diego-precipitation.php>

2.2.3.2 2018 and 2020 Jurisdictional Delineation

Dudek re-visited the Project Site in 2018 and 2020 to check the status of the “freshwater seep”. Another sample point was taken in the same location as the previous year in the lower graded area that previously supported irisleaf rush (Data Station 2018-A and Data Station 2020-1). Methods followed those described for the 2017 delineation above. The wetland indicator status of plants observed at wetland sampling locations on site were determined based on the *Arid West 2016 Regional Wetland Plant List* (Lichvar et al., 2016) and *Arid West 2018 Regional Wetland Plant List* (59 FR 29689-29691).

2.3 Survey Limitations

The reconnaissance survey, vegetation mapping, and jurisdictional delineation were done during the daylight hours under weather conditions that allowed for quality biological observations (e.g., surveys were not conducted during rain). Because surveys were conducted during the day, the likelihood of detecting nocturnal and crepuscular species, such as many mammal species, was relatively low. With the exception of the California gnatcatcher survey, no focused surveys were conducted on this parcel.

3 Results

3.1 Vegetation Communities and Land Covers

Two vegetation communities/land covers were mapped within the project site: ornamental and wild oats grassland (Figure 3, Biological Resources).

3.1.1 Ornamental

This land cover type is described by Oberbauer et al. (2008) as an area where non-native ornamental species and landscaping schemes have been installed and maintained. Thus, impacts to these areas would not require habitat compensation per the City’s requirements.

Ornamental plantings were mapped within in the southern portion of the site. This vegetation community is associated primarily with residential landscaping between urban/developed plots. This land cover supports a myriad of ornamental species in the Project area, including but not limited to acacia (*Acacia* spp.), river redgum (*Eucalyptus camaldulensis*), Perez’s sea lavender (*Limonium perezii*), wild oats (*Avena* spp.), and less commonly, two-color rabbit-tobacco (*Pseudognaphalium biolettii*), rod wirelettuce (*Stephanomeria virgata*), California buckwheat (*Eriogonum fasciculatum*), and horehound (*Marrubium vulgare*). There are 0.15 acres of ornamental on site.

3.1.2 Wild Oats Grassland

Wild oats grassland is a subcategory of non-native grassland plant community as described in Oberbauer et al. (2008) and is defined as a non-native grassland based on Holland (1986). This vegetation community is classified as “Wild oats and annual brome grassland” by the *Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009), which is a semi-natural stand² and not considered a sensitive biological resource by CDFW under CEQA (CDFG 2020b). Wild oats grassland occurs between 30 feet and 3,900 feet above mean sea level on rangelands and openings in woodlands (Sawyer et al. 2009). Wild oats grassland makes up the majority of the Project site and is dominated by white oats (slender oat [*Avena barbata*] and/or wild oat [*Avena fatua*]) in the open to continuous herbaceous layer. Other common herbs observed in the grassland include western ragweed (*Ambrosia psilostachya*), dove weed (*Croton setiger*), and Menzies’s golden bush (*Isocoma menziesii*). There are 4.80 acres of wild oats grassland on site. As described above, this vegetation community is not sensitive but does require habitat compensation per the City’s requirements.

² Semi-natural stands are invasive naturalized plant groups where “plants are sufficiently dominant to have replaced most of the natives, and, in many situations, the associates are themselves non-native species” (Sawyer et al. 2009).

3.2 Wildlife

Wildlife was recorded onsite during the initial reconnaissance-level surveys in 2017. Common species observed in the grassland and ornamental plantings include mourning dove (*Zenaida macroura*), house finch (*Haemorrhous mexicanus*), Bewick's wren (*Thryomanes bewickii*), California towhee (*Melospiza crissalis*), and western fence lizard (*Sceloporus occidentalis*). During the 2020 site visit, signs of coyote (*Canis latrans*), and Botta's pocket gopher (*Thomomys bottae*) were observed.

3.3 Special-Status/Regulated Resources

3.3.1 Special-Status Vegetation Communities

Neither the wild oats grassland or ornamental communities are considered sensitive or rare since they are primarily dominated by non-native species and are not considered sensitive by CDFW (2020b). The City requires habitat compensation for impacts to wild oats grassland at 0.5:1 ratio. No habitat compensation is required for impacts to ornamental plantings.

3.3.2 Special-Status Plant Species

No special-status plant species were observed during the initial site reconnaissance survey or updated vegetation mapping. Appendix B lists the special-status plant species that were detected within the USGS 7.5-Minute quadrangle map and the 8-quadrangle maps surrounding the Project site, including the Morro Hill, Bonsall, Pala, San Luis Rey, Valley Center, Encinitas, Rancho Santa Fe, and Escondido USGS quadrangle maps (CNPS 2020; CDFW 2020a) or within the vicinity (USFWS 2020). No special-status plants have moderate or high potential to occur on the Project site due to lack of suitable vegetation, soil or microhabitats; or the Project site is outside of their known range (Appendix B). Therefore, the project site has no value as habitat for endangered, rare or threatened plant species.

3.3.3 Special-Status Wildlife Species

No special-status wildlife species were observed during the initial site reconnaissance survey or updated vegetation mapping. Appendix C lists the special-status wildlife species that were detected within the USGS 7.5-Minute quadrangle map and the 8-quadrangle maps surrounding the Project site, including the Morro Hill, Bonsall, Pala, San Luis Rey, Valley Center, Encinitas, Rancho Santa Fe, and Escondido USGS quadrangle maps (CDFW 2020a) or within the vicinity (USFWS 2020). No special-status wildlife species have moderate or high potential to occur on the Project site due to lack of suitable vegetation or microhabitats; or the Project site is outside of their known range (Appendix C). Therefore, the project site has no value as habitat for endangered, rare or threatened wildlife species.

3.3.4 Jurisdictional Waters

The far eastern edge of the Project site is located at the bottom of the slope trending in a west-east direction and is bound by the curb and paved Meyers Avenue. This edge of the site has been cut and graded parallel to Meyers Avenue, resulting in a road cut approximately 4 feet lower in elevation compared to the adjacent slope. Given the lower elevation and downward slope of the site in general, subsurface water is higher in the road cut. With the

hardscape of the curb and Meyers Avenue, the higher subsurface water is likely present longer than if natural conditions were present on site allowing water to continue moving freely below the surface. This manipulation of the landscape has created a condition at the road cut allowing some annual wetland herbs to be present during certain years.

As described above in Section 2, in 2005, REC conducted a delineation at the site and mapped two jurisdictional features as freshwater seeps totaling 0.55 acre. Then in 2007, Kleinfelder West, Inc. conducted another delineation and identified the features mapped by REC Consultants but within a substantially reduced area totaling 0.07 acre. Kleinfelder split the two features into three, due to a topographical and vegetative break (cutslope) within the southern feature. Kleinfelder concluded these features were non-jurisdictional. Dudek analyzed these same three features separately in 2017.

In 2017, one of the five locations, Data Station 2017-2, met all three ACOE criteria (hydrophytic vegetation, hydric soils, and wetland hydrology) as defined in the 1987 Manual. This location was visually distinct because it supports the wetland obligate plant irisleaf rush (*Juncus xiphioides*) which did not occur elsewhere in the Project site. Data Station 2017-2 is located where water seeps from the road cut for Meyers Avenue, which is approximately four feet below native grade. This same location was identified in both previous reports (REC 2005, Kleinfelder 2007). There were no indications that surface water is present, there are no linear features on site, and there have never been any signs of flow to or from this area during the 2005, 2007, 2017, 2018, or 2020 site visits. The indicator for hydrology was limited to hydrogen sulfide odor, which could have resulted from short-term saturation.

Dudek re-visited the Project Site in 2018 to check the status of the “freshwater seep”. Another sample point was taken in the same location as the previous year in the lower graded area supporting irisleaf rush (Data Station 2018-A). Irishleaf rush, a perennial herb, was not present in 2018. The previously mapped area had no wetland vegetation, hydric soils, or hydrology indicators.

Dudek re-visited the site again in 2020 and found hyssop loosestrife (*Lythrum hyssopifolium*), a wetland plant occurring among the upland weeds along the road cut. No irisleaf rush was observed, nor was any signs of hydrology on site. A soil pit was dug at the same site as in 2018 and found no evidence of hydric soils (Data Station 2020-1). The data forms from 2017, 2018, and 2020 are included in Appendix D.

3.3.4.1 Precipitation

To help provide context of the varying results at the site, Dudek analyzed each year’s delineation using the Antecedent Precipitation Tool (USACE 2020; Appendix E). As mentioned in Section 2, the winter of 2004/2005 was one of the wettest winters recorded in over 120 years (Kleinfelder 2007). The Antecedent Precipitation Tool shows that the 2005 delineation was done during a wetter than normal year, with extreme wetness compared to the 30-year normal range (Appendix E). This would explain why the features observed in 2005 that have not been observed since: the conditions did not reflect a normal range of precipitation in the region. Kleinfelder (2007) also notes that REC may have had a false positive for hydrology and vegetation due to a wetter than normal winter. In 2007, the rainfall was drier than normal, but still fell within the 30-year normal range. However, the field investigation on February 22, 2007 occurred after two recent rain events, providing wet conditions on site. The investigations done in 2017, 2018, and 2020 were done during normal conditions (Appendix E).

3.3.4.2 Soils

None of the soils onsite are considered hydric (i.e., they lack a hydric rating) (USDA 2020).

3.3.4.3 Discussion

As described above, the higher subsurface water has created a condition at the road cut allowing some annual wetland herbs to be present during certain years. The herbs grow along various places in the road cut, there is a lack of consistent hydric soil conditions, and there is no evidence of surface flow in or out of the property. The subsurface water is not concentrated in one location and the circumstances where wetland herbs are present is due to areas disturbed/created through grading activities. Without these grading activities, these areas would not support any wetland species. Further, the high cover of upland herbs in this area demonstrate that the area does not receive enough water to preclude these upland species from dominating the vegetation. Based on all the information provided here, it is reasonable to conclude there are no waters of the U.S. or state on site.

3.4 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Wildlife corridors contribute to population viability by ensuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires).

Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals. They may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

To function effectively, a wildlife corridor must link two or more patches of habitat for which connectivity is desired, and it must be suitable for the focal target species to achieve the desired demographic and genetic exchange between populations. Habitat areas are identified in five large areas of natural habitats located in the northeastern, eastern, southern, southwestern, and northwestern portions of the City (Ogden 2001).

The approximately 4.95-acre Project site is not expected to provide for wildlife movement or serve as an important habitat linkage and is not located within a designated Biological Core Linkage Area (BCLA) (Ogden 2001). The Project is located within a currently undeveloped parcel that is surrounded by existing, high-density commercial and residential development. Because of regular human activity and considerable vehicle traffic in and surrounding the site, predominantly urban-adapted wildlife species are expected to occur in this area, such as raccoons (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and brush rabbits (*Sylvilagus* spp.).

3.5 Regional Resource Planning Context

The City of Escondido's Draft Subarea Plan has not been finalized or implemented, and the City is no longer an active participant in the NCCP program and the subregional MHCP conservation planning effort. However, it is the City's policy to comply with the conservation policies identified in the Draft Escondido Subarea Plan, including an assessment of designated BCLA or MHCP Focused Planning Area (FPA) in the context of the proposed Project. The

Project site is located in an area mapped as Developed and Disturbed Land and is located outside the BCLA or MHCP FPAs (Ogden 2001).

4 Project Impacts and Significance Determination

4.1 Definition of Impacts

This section defines the types of impacts considered in this report to analyze the potential effects of the Project on biological resources. The entire site will be developed as part of the proposed Project and the design is shown on Figure 4, Site Plan. These impacts are discussed in more detail as follows.

Direct impacts were quantified by overlaying the anticipated limits of grading on the biological resources and quantifying impacts. For this report, “direct permanent impacts” will occur to the entire parcel.

Indirect impacts are reasonably foreseeable effects caused by Project implementation on remaining or adjacent biological resources outside the parcel. Because the entire site will be permanently impacted and the surrounding areas consist of developed land, no indirect impacts are anticipated and are not discussed further.

4.2 Explanation of Findings of Significance

This report analyzes impacts to sensitive vegetation communities, special-status wildlife species, wildlife corridors and habitat connectivity, and regional resource planning to determine whether such impacts are significant. CEQA Guidelines, Section 15064(b), states that an ironclad definition of “significant” effect is not possible because the significance of an activity may vary with the setting. However, CEQA Guidelines, Section 15065(a), lists impacts that are helpful in defining whether a project may have a significant effect on the environment. Mandatory findings of significance, which require preparation of an environmental impact report, occur when there is substantial evidence that a project could (1) substantially degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or animal community, or (5) reduce the number or restrict the range of a rare or endangered plant or animal.

The following are the significance thresholds for biological resources provided in the CEQA Appendix G environmental checklist, which states that a project could potentially have a significant effect if it (14 CCR 15000 et seq.):

- Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

- Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.
- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflicts with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

4.3 Special-Status Vegetation Communities

The entire site will be impacted, resulting in the loss of 4.80 acres of wild oats grassland and 0.15 acres of ornamental plantings. The City requires habitat compensation for impacts to wild oats grassland at 0.5:1 ratio. No habitat compensation is required for impacts to ornamental plantings. In-Lieu fee credits were purchased in 2008 at Daley Ranch Mitigation Bank (2.21 acres of grassland and 0.06 acres of coastal sage scrub) for impacts to 4.80 acres of wild oats grassland. The coastal sage scrub credits are much higher value than non-native grassland and fulfill the remaining habitat compensation requirement by the City. Therefore, this impact is **less than significant**.

4.4 Special-Status Plant Species

The project site has no value as habitat for endangered, rare or threatened plant species. No special-status plants have moderate or high potential to occur on the Project site due to lack of suitable vegetation, soil or microhabitats; or the Project site is outside of their known range (Appendix B); therefore, there are **no impacts** to special-status plants.

4.5 Special-Status Wildlife Species

Therefore, the project site has no value as habitat for endangered, rare or threatened wildlife species. No special-status wildlife species have moderate or high potential to occur on the Project site due to lack of suitable vegetation or microhabitats; or the Project site is outside of their known range (Appendix C); therefore, there are **no impacts** to special-status wildlife species.

4.6 Jurisdictional Waters

There are no jurisdictional waters or wetlands on site; therefore, there are **no impacts** to these features.

4.7 Wildlife Corridors and Habitat Linkages

There are no wildlife corridors or habitat linkages on site; therefore, there are **no impacts** to these resources.

4.8 Migratory Birds

Raptors and/or any migratory birds are protected under the Migratory Bird Treaty Act (MBTA) (16 USC 703 et seq.) and Fish and Game Code (3503 and 3503.5). The MBTA provides protection for birds by prohibiting the destruction of active nests for most native birds. The MBTA protects over 800 species of birds, including species such as house finch, mourning dove, and California towhee which could nest in the grassland or ornamental plantings. These birds are not endangered, rare or threatened species and as described above, the project has no value as habitat for endangered, rare or threatened species. The project will include a condition of approval requiring nesting bird surveys be completed if clearing and grubbing occur during the nesting season (typically February 15 through August 31) because local governments have the land use authority to protect bird nests during clearing and grubbing activities as a common and typical permit condition for any property in the state and western region due to the wide range of the Pacific Flyway.

5 Conditions of Approval

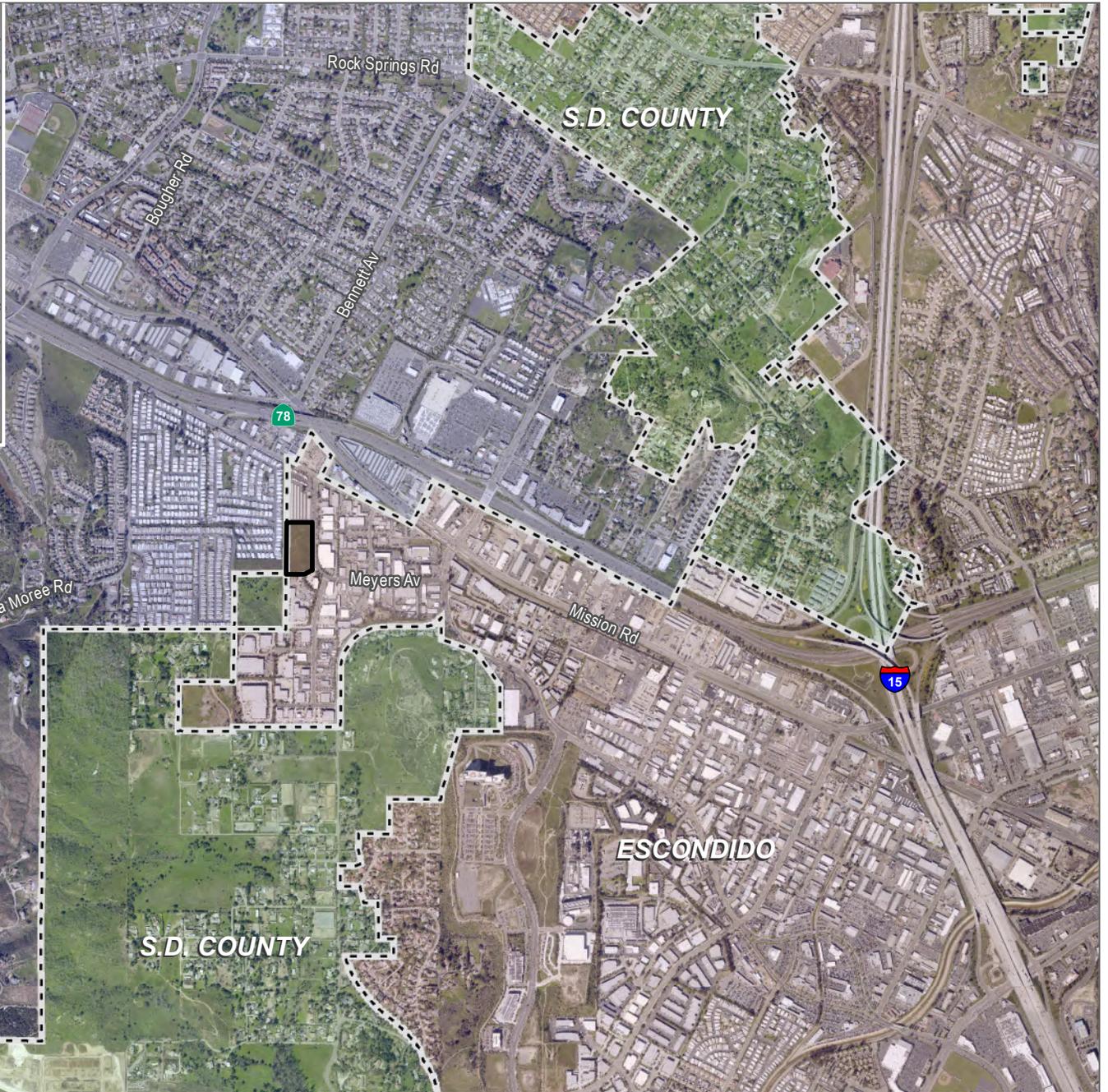
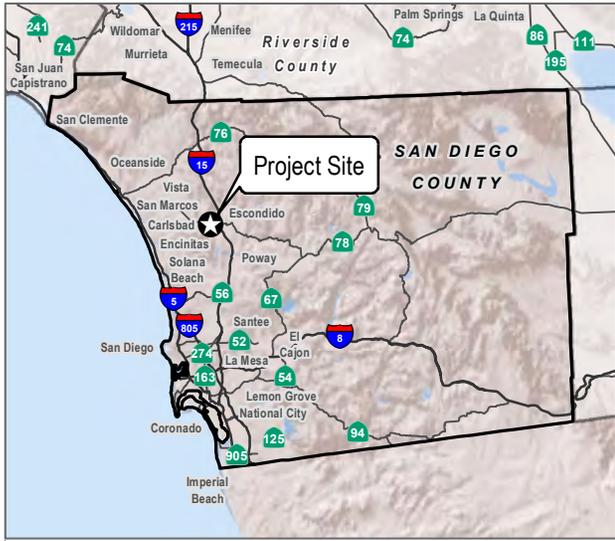
Avoid and Minimize Impacts to Nesting Birds. To avoid any direct impacts to raptors and/or any migratory birds protected under the Migratory Bird Treaty Act (16 USC 703 et seq.) and Fish and Game Code (3503 and 3503.5), removal of habitat shall occur outside of the nesting season for these species (i.e., outside of February 15 through August 31, annually). If, however, removal of habitat must occur during the nesting period, the proposed Project applicant or its designee shall retain a biologist to conduct a pre-construction survey to determine the presence or absence of nesting birds in the proposed area of disturbance. The pre-construction survey must be conducted within 72 hours prior to the start of construction and shall be repeated if construction activities discontinue for more than 3 consecutive days.

Impacts to active nests are typically avoided as follows. Clearing and construction shall be postponed or halted within the following buffers to be established by the biologist: (1) no work within 50 feet of a non-listed and non-raptor avifauna nest; and (2) no work within 500 feet of a raptor nest. Raptor nests are not anticipated due to lack of suitable nesting habitat. The construction avoidance area shall be clearly demarcated in the field with highly visible construction fencing or flagging, and construction personnel shall be instructed on the sensitivity of nest areas. To the extent possible, the no-construction buffer zones shall be avoided until the nesting cycle is complete. However, it may be reasonable for the City to reduce these buffer widths depending on site conditions. If construction-related activities must take place within an active nest buffer area, the proposed project applicant or its designee shall present a plan the City with measures to monitor and minimize impacts to nesting birds. No ground-disturbance activities shall occur within the avoidance buffer zone until the qualified biologist has determined that the nest is no longer active and the young are not dependent on the nest.

6 References

- 16 USC 703–712. Migratory Bird Treaty Act, as amended.
- 59 FR 29689-29691. National Wetland Plant List. May 18, 2020
- CDFW (California Department of Fish and Wildlife). 2020a. RareFind, Version 5.2.14 (Commercial Subscription). California Natural Diversity Database (CNDDDB). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed December 2020. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>.
- CDFW. 2020b. *List of Vegetation Alliances and Associations: Natural Communities List Arranged Alphabetically by Life Form*. September 2020. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>
- CNPS (California Native Plant Society). 2020. “Inventory of Rare and Endangered Plants” (online ed., v8-03 0.39). Sacramento, California: California Native Plant Society. Accessed December 2020. www.rareplants.cnps.org.
- Dudek. 2018. 2018 Focused California Gnatcatcher Survey Report for the Proposed Sunrise Project, Cities of San Marcos, Escondido, and County of San Diego, California. May 17, 2018.
- Kleinfelder West, Inc. 2007. Preliminary Jurisdictional Wetland Delineation, Review, and Update, Meyers Avenue Site, San Diego County, California. April 27, 2007.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. “The National Wetland Plant List: 2016 wetland ratings.” *Phytoneuron* 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X
- Ogden and CBI (Ogden Environmental and Energy Services Co., Inc and Conservation Biology Institute). 2001. *Public Review Draft Escondido Subarea Plan, Implementing the Multiple Habitat Conservation Program*. City Case File 95-25-GPIP. Prepared for City of Escondido. June 2001.
- REC Consultants, Inc. 2005. Biology Technical Report for the Meyers Parcel. June 2005
- SDNHM (San Diego Natural History Museum). 2020. Data retrieved from Herbarium and Plant Atlas databases for grid squares I9, I10, J9, and J10. San Diego County Plant Atlas Project. Online ed. Accessed December 2020. <http://www.sdplantatlas.org>
- Sawyer J.O., T. Keeler-Wolf., and J.M. Evens. 2009. *A Manual of California Vegetation*. 2nd ed. California Native Plant Society.
- Tremor, S., ed. 2017. *San Diego County Mammal Atlas*. Illustrated by J. Zee. San Diego, California: San Diego Natural History Museum.
- USACE (U.S. Army Corps of Engineers). 1987. Corps of Engineers Wetlands Delineation Manual. Environmental Laboratory, Wetlands Research Program Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station. January 1987.

- USACE. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Environmental Laboratory, ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center. September 2008. Accessed September 1, 2010. http://www.usace.army.mil/CECW/Pages/reg_supp.aspx.
- USACE. 2020. Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network. Antecedent Precipitation Tool (Version 1). Accessed December 2020.
- USDA (U.S. Department of Agriculture). 2020. Web Soil Survey [web application]. Accessed December 2020. <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.
- USFWS (U.S. Fish and Wildlife Service). 2020a. Information for Planning and Consultation (IPaC). Accessed December 2020. <https://ecos.fws.gov/ipac/>.
- USFWS. 2020b. "National Wetlands Inventory." Washington, D.C.: USFWS. Accessed December 2020. <http://www.fws.gov/wetlands/>.
- USGS (U.S. Geologic Survey). 2020. "National Hydrography Dataset, Flowline Map" [map]. Accessed December 2020. <http://nhd.usgs.gov/data.html>.
- Unitt, P. 2004. *San Diego County Bird Atlas*. San Diego, California: San Diego Natural History Museum.



SOURCE: SANDAG 2017



FIGURE 1

Project Location



SOURCE: SANGIS 2019



FIGURE 2
Soils



- ✕ Data Station
- Project Boundary
- Vegetation
- ORN, Ornamental
- WOG, Wild Oats grassland

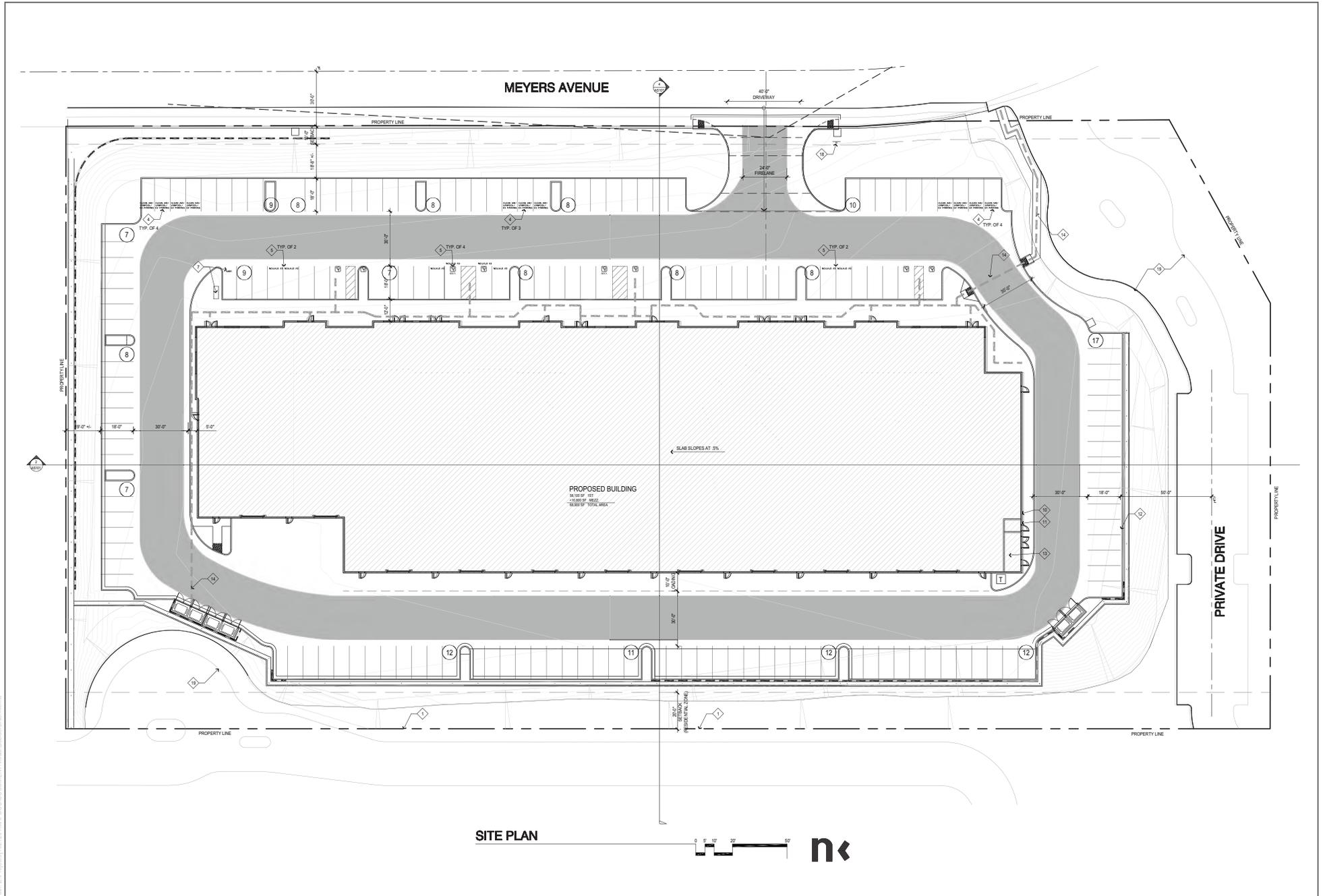
SOURCE: SANGIS 2019



FIGURE 3

Biological Resources

Biological Resources Technical Report for 2351 Meyers Avenue



SITE PLAN

SOURCE: OnPoint Development 2020

Appendix A

2018 Focused California Gnatcatcher Survey Report for the
Proposed Sunrise Project

May 17, 2018

10499-01

U.S. Fish and Wildlife Service
Attention: Recovery Permit Coordinator
2177 Salk Avenue #250
Carlsbad, California 92008

Subject: 2018 Focused California Gnatcatcher Survey Report for the Proposed Sunrise Project, Cities of San Marcos, Escondido and County of San Diego, California

Dear Recovery Permit Coordinator:

This report documents the results of six protocol-level presence/absence surveys for coastal California gnatcatcher (*Poliophtila californica californica*) (CAGN) that were conducted for the Sunrise project (proposed project) by Dudek biologists between March 16, 2018, and April 20, 2018. The proposed project is located in the cities of San Marcos and Escondido and the County of San Diego, south of E. Barham Drive, east of La Moree Drive and west of Meyers Avenue/Corporate Drive. The proposed project consists of 19.4 acres, of which approximately 6.49 acres is suitable CAGN habitat. Surveys were conducted in all areas of suitable gnatcatcher habitat.

CAGN is a federally listed threatened species and a California Department of Fish and Wildlife (CDFW) Species of Special Concern. It is closely associated with coastal sage scrub habitat and is therefore threatened primarily by loss, degradation, and fragmentation of this habitat. CAGN typically occurs below 820 feet above mean sea level (amsl) within 22 miles of the coast and 1,640 feet amsl for inland regions (Atwood and Bolsinger 1992). Studies have suggested that CAGNs avoid nesting on very steep slopes (greater than 40%) (Bontrager 1991). CAGN is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism (Braden et al. 1997).

This report is intended to satisfy reporting requirements for the following CAGN-permitted biologists:

- Anita Hayworth #TE-781084
- Erin Bergman Permit #TE-53771B
- Kamarul Muri Permit #TE-813545

PROJECT LOCATION AND EXISTING CONDITIONS

The approximate 19.4-acre proposed project site is located within the cities of San Marcos and Escondido and the County of San Diego, California and is situated in the eastern portion of the U.S. Geological Survey 7.5-minute San Marcos quadrangle, Section 18; in Township 12 South; Range 2 West (Figure 1). The proposed project is located south of E. Barham drive, west of Meyers avenue/Corporate drive and east of La Moree road and is comprised of two undeveloped lots (Figure 1). Of the 19.4-acre project site, 6.49 acres consist of suitable habitat for CAGN (Figure 3).

Elevations in the site range from approximately 20 to 60 feet amsl. Topography on site consists of flat, developed areas adjacent to the road on which the inn and restaurant are located, with a bank to the north that slopes downward toward the floodplain of the San Luis Rey River.

Four predominant soil units occur within the site including; Fallbrook sandy loam (2 to 5 percent slopes), Vista course sandy loam (5 to 9 percent slopes), Vista course sandy loam (9 to 15 percent slopes), and Visalia sandy loam (2 to 5 percent slopes) (NRCS 2017).

VEGETATION COMMUNITIES

Based on species composition and general physiognomy, six vegetation communities are present on site. Their acreages are presented in Table 1. Approximately 6.49 acres of CAGN-suitable habitat were mapped on the project site in accordance with Holland (1986) and Oberbauer et al. (2008), as described in Table 1 and shown on Figure 2.

Table 1
Vegetation Communities and Land Covers On Site

Vegetation Communities/Land Cover Type	Acres
Agricultural (Orchard)*	2.94
Black sage scrub	4.52
California buckwheat scrub	0.35
disturbed California buckwheat scrub	1.55
Ornamental*	0.15
White sage scrub	0.07
Wild oats grassland*	9.85
Total	19.43

* Dominated by non-native plant species.

Recovery Permit Coordinator

Subject: 2018 Focused California Gnatcatcher Survey Report for the Proposed Sunrise Project, Cities of San Marcos, Escondido and County of San Diego, California

The majority of the proposed project site is composed of wild oats grassland which is dominated by non-native, naturalized plant species. However, the southern section of the site contains relatively uninvaded black sage scrub. Native vegetation communities within the proposed project site include 4.52 acre of black sage scrub, 0.35 acre of California buckwheat scrub, 1.55 acres of disturbed California buckwheat scrub, and 0.07 acres of white sage scrub, which is a total of 6.49 acres of coastal sage scrub and its subcategories of habitat. Non-native vegetation communities on site include 9.85 acres of wild oats grassland, 0.15 acre of ornamental vegetation, and 2.94 acre of historic/abandoned agricultural (orchard) which consists of a mix of abandoned avocado and pine trees.

METHODS

Suitable habitat within and adjacent to the proposed project site was surveyed six times by Dudek wildlife biologists Erin Bergman (EBE) Permit #TE-53771B, Anita Hayworth (AH) Permit #TE-780184, and Kamarul Muri (KJM) Permit # TE-813545 according to the schedule provided in Table 2. The surveys were conducted in conformance with the currently accepted protocol of the U.S. Fish and Wildlife Service (USFWS 1997) for projects that are not within an NCCP jurisdiction.

Table 2
Survey Details and Conditions

Date	Surveyor*	Time	Survey Conditions
03/16/18	EBE	11:22am–12:09pm	72°F; 30–40% cloud cover (cc), 0–3mile per hour (mph) winds
03/23/18	EBE	8:18am–11:11am	68.8–76°F, 20–90% cc, 0–5 mph winds
03/30/18	APC, KJM, MLO	8:45am–10:34am	60–74°F, 0–% cc, 1–4 mph winds
04/06/18	AH, SC	7:45am–9:25am	58–64°F, 40–50% cc, 0–4 mph winds
04/13/18	KJM	9:35am–11:00am	67–69°F, 0% cc, 1–5 mph winds
04/20/18	KJM	9:40am–11:18am	63–69°F, 0% cc, 1–5 mph winds

* AH =Anita Hayworth; APC = Anna Cassady; EBE = Erin Bergman. MLO = Monique O'Connor; KJM = Kamarul Muri

A tape of recorded California gnatcatcher vocalizations played approximately every 50 to 100 feet was used to induce responses from potentially present gnatcatchers. If a gnatcatcher was detected, the recorded playback was terminated to minimize potential for harassment. A 100-scale (1 inch = 100 feet) aerial photograph of the study area overlaid with the vegetation and site boundaries was used to map any gnatcatchers detected. Binoculars (8 x 42 strength) were used to aid in detecting and identifying bird species. Weather conditions, time of day, and season were appropriate for the detection of gnatcatchers. Survey routes are shown in Figure 2.

Recovery Permit Coordinator

Subject: 2018 Focused California Gnatcatcher Survey Report for the Proposed Sunrise Project,
Cities of San Marcos, Escondido and County of San Diego, California

RESULTS

One adult male gnatcatcher was observed within the proposed project site over the course of the surveys (Figure 2). The gnatcatcher was observed or detected on three of the six visits. A total of 43 species of wildlife were observed during the surveys. A full list of wildlife species observed during the surveys is provided in Appendix A. Feel free to contact me at ebergman@dudek.com with questions or if you require additional information.

Sincerely,



Erin Bergman
Biologist

Att: *Figure 1, Project Location Map*
Figure 2, CAGN Survey Routes and Results
Appendix A, Wildlife Species Observed

cc: *Anita Hayworth, Dudek*

REFERENCES CITED

- Atwood, J.L., and J.S. Bolsinger. 1992. "Elevational Distribution of California Gnatcatchers in the United States." *Journal of Field Ornithology* 63:159–168.
- Bontrager, D.R. 1991. *Habitat Requirements, Home Range Requirements, and Breeding Biology of the California Gnatcatcher (Polioptila californica) in South Orange County, California*. Prepared for Santa Margarita Company, Ranch Santa Margarita, California. April 1991.
- Braden, G.T., R.L. McKernan, and S.M. Powell. 1997. "Effects of Nest Parasitism by the Brown-Headed Cowbird on Nesting Success of the California Gnatcatcher." *Condor* 99:858–865.
- Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Nongame-Heritage Program, California Department of Fish and Game. October 1986.
- NRCS (Natural Resources Conservation Service). 2017. Web Soil Survey, United States Department of Agriculture. Available online at <https://websoilsurvey.sc.egov.usda.gov/>. Accessed [08/04/2017].

Recovery Permit Coordinator

Subject: 2018 Focused California Gnatcatcher Survey Report for the Proposed Sunrise Project, Cities of San Marcos, Escondido and County of San Diego, California

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County*. March 2008. Accessed September 12, 2012. http://www.sdcanyonlands.org/pdfs/veg_comm_sdcounty_2008_doc.pdf.

USFWS (U.S. Fish and Wildlife Service). 1997. "Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol." Carlsbad, California: USFWS. Revised July 28, 1997. Accessed July 2015. <http://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/CCalGnatcatcher.1997.protocol.pdf>.



SOURCE: SANGIS 2017; USFWS 2017

DUDEK



0 125 250 Feet

FIGURE 2
CAGN Survey Routes and Results

Sunrise Project - 45-Day Report

APPENDIX A

*Wildlife Species Observed during the 2018 Sunrise
California Gnatcatcher Survey*

APPENDIX A
Wildlife Species Observed during the 2018 Sunrise California
Gnatcatcher Survey

BIRD

BLACKBIRDS, ORIOLES AND ALLIES

ICTERIDAE—BLACKBIRDS

Icterus bullockii—Bullock's oriole
Icterus cucullatus—hooded oriole
Sturnella neglecta—western meadowlark

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch
Spinus lawrencei—Lawrence's goldfinch
Spinus psaltria—lesser goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe
Sayornis saya—Say's phoebe
Tyrannus verticalis—western kingbird
Tyrannus vociferans—Cassin's kingbird

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Buteo jamaicensis—red-tailed hawk
Buteo lineatus—red-shouldered hawk

APPENDIX A (Continued)

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

- Calypte anna*—Anna's hummingbird
- Selasphorus rufus*—rufous hummingbird
- Selasphorus sasin*—Allen's hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

- Aphelocoma californica*—California scrub-jay
- Corvus corax*—common raven

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

- Mimus polyglottos*—northern mockingbird
- Toxostoma redivivum*—California thrasher

OLD WORLD WARBLERS AND GNATCATCHERS

SYLVIIDAE—SYLVIID WARBLERS

- Polioptila californica californica*—coastal California gnatcatcher

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

- Zenaida macroura*—mourning dove

ROADRUNNERS AND CUCKOOS

CUCULIDAE—CUCKOOS, ROADRUNNERS, AND ANIS

- Geococcyx californianus*—greater roadrunner

STARLINGS AND ALLIES

STURNIDAE—STARLINGS

- * *Sturnus vulgaris*—European starling

SWALLOWS

HIRUNDINIDAE—SWALLOWS

- Petrochelidon pyrrhonota*—cliff swallow

APPENDIX A (Continued)

THRUSHES

TURDIDAE—THRUSHES

Sialia mexicana—western bluebird

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Cardellina pusilla—Wilson’s warbler

Oreothlypis celata—orange-crowned warbler

Setophaga coronata—yellow-rumped warbler

WOODPECKERS

PICIDAE—WOODPECKERS AND ALLIES

Melanerpes formicivorus—acorn woodpecker

WRENS

TROGLODYTIDAE—WRENS

Thryomanes bewickii—Bewick’s wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Melospiza melodia—song sparrow

Melospiza crissalis—California towhee

Pipilo maculatus—spotted towhee

INVERTEBRATE

BUTTERFLIES

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Danaus gilippus—queen

RIODINIDAE—METALMARKS

Apodemia mormo virgulti—Behr’s metalmark

APPENDIX A (Continued)

PAPILIONIDAE—SWALLOWTAILS

Papilio zelicaon—anise swallowtail

MAMMAL

DOMESTIC

FELIDAE—CATS

* *Felis catus*—domestic cat

RATS, MICE, AND VOLES

CRICETIDAE—RATS, MICE, AND VOLES

Neotoma sp.—woodrat

REPTILE

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

TEIIDAE—WHIPTAIL LIZARDS

Aspidoscelis hyperythra beldingi—Belding's orange-throated whiptail

* signifies introduced (non-native) species

Appendix B

Special-Status Plant Species Potential to Occur in the Project Area

APPENDIX B

Special-Status Plant Species Potential to Occur within the Project Area

Scientific Name	Common Name	Status (Federal/State/CRPR/Draft Escondido Subarea Plan ¹)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Abronia maritima</i>	red sand- verbena	None/None/4.2/None	Coastal dunes/perennial herb/Feb–Nov/0–330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand-verbena	None/None/1B.1/None	Chaparral, Coastal scrub, Desert dunes; sandy/annual herb/(Jan)Mar–Sep/245–5250	Not expected to occur. No suitable vegetation present.
<i>Acanthomintha ilicifolia</i>	San Diego thorn-mint	FT/SE/1B.1/Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay, openings/annual herb/Apr–June/30–3150	Not expected to occur. There is no suitable clay soil present.
<i>Acmispon prostratus</i>	Nuttall's acmispon	None/None/1B.1/Covered	Coastal dunes, Coastal scrub (sandy)/annual herb/Mar–June(July)/0–35	Not expected to occur. The site is outside of the species' known elevation range.
<i>Adolphia californica</i>	California adolphia	None/None/2B.1/None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay/perennial deciduous shrub/Dec–May/30–2430	Not expected to occur. There is no suitable clay soil present.
<i>Agave shawii</i> var. <i>shawii</i>	Shaw's agave	None/None/2B.1/None	Coastal bluff scrub, Coastal scrub; Maritime succulent scrub/perennial leaf succulent/Sep–May/10–395	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Ambrosia pumila</i>	San Diego ambrosia	FE/None/1B.1/Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr–Oct/65–1360	Low potential to occur. There is no suitable clay soil present. This perennial herb would have been observed during site visits.
<i>Aphanisma blitoides</i>	aphanisma	None/None/1B.2/None	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy or gravelly/annual herb/Feb–June/3–1,000	Not expected to occur. No suitable vegetation present.
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>	Del Mar manzanita	FE/None/1B.1/Covered	Chaparral (maritime, sandy)/perennial evergreen shrub/Dec–June/0–1200	Not expected to occur. No suitable vegetation present.
<i>Arctostaphylos rainbowensis</i>	Rainbow manzanita	None/None/1B.1/None	Chaparral/perennial evergreen shrub/Dec–Mar/670–2200	Not expected to occur. No suitable vegetation present.
<i>Artemisia palmeri</i>	San Diego sagewort	None/None/4.2/None	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; sandy, mesic/perennial	Not expected to occur. No suitable vegetation present.

APPENDIX B (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR/Draft Escondido Subarea Plan ¹)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
			deciduous shrub/(Feb)May-Sep/45-3000	
<i>Asplenium vespertinum</i>	western spleenwort	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial rhizomatous herb/Feb-June/590-3280	Not expected to occur. No suitable vegetation present.
<i>Atriplex coulteri</i>	Coulter's saltbush	None/None/1B.2/None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; alkaline or clay/perennial herb/Mar-Oct/5-1510	Low potential to occur. There is no suitable clay soil present. This perennial herb would have been observed during site visits.
<i>Atriplex pacifica</i>	South Coast saltscale	None/None/1B.2/None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/Mar-Oct/0-460	Not expected to occur. The site is outside of the species' known elevation range.
<i>Atriplex parishii</i>	Parish's brittlescale	None/None/1B.1/None	Chenopod scrub, Playas, Vernal pools; alkaline/annual herb/June-Oct/80-6235	Not expected to occur. No suitable vegetation present.
<i>Baccharis vanessae</i>	Encinitas baccharis	FT/SE/1B.1/Covered	Chaparral (maritime), Cismontane woodland; sandstone/perennial deciduous shrub/Aug,Oct,Nov/195-2360	Not expected to occur. No suitable vegetation present. Not expected to occur. No suitable vegetation present.
<i>Bloomeria clevelandii</i>	San Diego goldenstar	None/None/1B.1/None	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial bulbiferous herb/Apr-May/160-1525	Not expected to occur. There is no suitable clay soil present.
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	FT/SE/1B.1/Covered	Chaparral (openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools; often clay/perennial bulbiferous herb/Mar-June/80-3675	Not expected to occur. There is no suitable clay soil present. Nearest CNDDDB occurrence is approximately 3.25 miles from the project area.
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	None/None/1B.1/None	Closed-cone coniferous forest, Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools; mesic, clay/perennial bulbiferous herb/May-July/95-5550	Not expected to occur. There is no suitable clay soil present.
<i>Calochortus dunnii</i>	Dunn's mariposa lily	None/SR/1B.2/None	Closed-cone coniferous forest, Chaparral, Valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/(Feb)Apr-June/605-6005	Low potential to occur. There is no suitable clay soil present.
<i>Camissoniopsis lewisii</i>	Lewis' evening-primrose	None/None/3/None	Coastal bluff scrub, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; sandy or clay/annual herb/Mar-May(June)/0-985	Low potential to occur. There is no suitable clay soil present.

APPENDIX B (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR/Draft Escondido Subarea Plan ¹)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Caulanthus simulans</i>	Payson's jewelflower	None/None/4.2/None	Chaparral, Coastal scrub; sandy, granitic/annual herb/(Feb)Mar–May(June)/295–7220	Not expected to occur. No suitable vegetation present.
<i>Ceanothus cyaneus</i>	Lakeside ceanothus	None/None/1B.2/None	Closed-cone coniferous forest, Chaparral/perennial evergreen shrub/Apr–June/771–2,475	Not expected to occur. No suitable vegetation present.
<i>Ceanothus verrucosus</i>	wart-stemmed ceanothus	None/None/2B.2/Covered	Chaparral/perennial evergreen shrub/Dec–May/0–1245	Not expected to occur. No suitable vegetation present.
<i>Centromadia parryi</i> ssp. <i>australis</i>	southern tarplant	None/None/1B.1/None	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools/annual herb/May–Nov/0–1575	Low potential to occur. There are no suitable vernal pool habitat present.
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	None/None/1B.1/None	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland; alkaline/annual herb/Apr–Sep/0–2100	Low potential to occur. There are no records of this species within the Project vicinity (SDNHM 2020; CDFW 2020).
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	None/None/1B.1/None	Coastal bluff scrub (sandy), Coastal dunes/annual herb/Jan–Aug/0–330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Chamaebatia australis</i>	southern mountain misery	None/None/4.2/None	Chaparral (gabbroic or metavolcanic)/perennial evergreen shrub/Nov–May/980–3345	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Chorizanthe orcuttiana</i>	Orcutt's spineflower	FE/SE/1B.1/Covered	Closed-cone coniferous forest, Chaparral (maritime), Coastal scrub; sandy openings/annual herb/Mar–May/5–410	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	long-spined spineflower	None/None/1B.2/None	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; often clay/annual herb/Apr–July/95–5020	Not expected to occur. There is no suitable clay soil present.
<i>Cistanthe maritima</i>	seaside cistanthe	None/None/4.2/None	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; sandy/annual herb/(Feb)Mar–June(Aug)/15–985	Low potential to occur. There are no records of this species within the Project vicinity (SDNHM 2020).
<i>Convolvulus simulans</i>	small-flowered morning-glory	None/None/4.2/None	Chaparral (openings), Coastal scrub, Valley and foothill grassland; clay, serpentinite seeps/annual	Not expected to occur. There is no suitable clay soil present.

APPENDIX B (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR/Draft Escondido Subarea Plan ¹)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
			herb/Mar–July/95–2430	
<i>Corethrogyne filaginifolia</i> var. <i>incana</i>	San Diego sand aster	None/None/1B.1/None	Coastal bluff scrub, Chaparral, Coastal scrub/perennial herb/June–Sep/5–375	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>	Del Mar Mesa sand aster	None/None/1B.1/Covered	Coastal bluff scrub, Chaparral (maritime, openings), Coastal scrub; sandy/perennial herb/May, July, Aug, Sep/45–490	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Cryptantha wigginsii</i>	Wiggins' cryptantha	None/None/1B.2/None	Coastal scrub; often clay/annual herb/Feb–June/65–900	Not expected to occur. There is no suitable clay soil or suitable habitat present.
<i>Deinandra paniculata</i>	paniculate tarplant	None/None/4.2/None	Coastal scrub, Valley and foothill grassland, Vernal pools; usually vernal mesic, sometimes sandy/annual herb/(Mar)Apr–Nov/80–3085	Low potential to occur. There are no records of this species within the Project vicinity (SDNHM 2020).
<i>Dichondra occidentalis</i>	western dichondra	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar–July/160–1640	Low potential to occur. There are no records of this species within the Project vicinity (SDNHM 2020).
<i>Dudleya alainae</i>	Banner dudleya	None/None/3.2/None	Chaparral, Lower montane coniferous forest, Sonoran desert scrub; rocky/perennial herb/Apr–July/2425–3935	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	Blochman's dudleya	None/None/1B.1/Covered	Coastal bluff scrub, Chaparral, Coastal scrub, Valley and foothill grassland; rocky, often clay or serpentinite/perennial herb/Apr–June/15–1475	Low potential to occur. There is no suitable clay soil/rocky habitat present. This perennial herb would have been observed during site visits.
<i>Dudleya multicaulis</i>	many-stemmed dudleya	None/None/1B.2/None	Chaparral, Coastal scrub, Valley and foothill grassland; often clay/perennial herb/Apr–July/45–2590	Not expected to occur. There is no suitable clay soil present.
<i>Dudleya variegata</i>	variegated dudleya	None/None/1B.2/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial herb/Apr–June/5–1905	Not expected to occur. There is no suitable clay soil present.
<i>Dudleya viscida</i>	sticky dudleya	None/None/1B.2/Covered	Coastal bluff scrub, Chaparral, Cismontane woodland,	Not expected to occur. No suitable

APPENDIX B (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR/Draft Escondido Subarea Plan ¹)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
			Coastal scrub; rocky/perennial herb/May–June/30–1805	vegetation present.
<i>Ericameria palmeri</i> var. <i>palmeri</i>	Palmer's goldenbush	None/None/1B.1/None	Chaparral, Coastal scrub; mesic/perennial evergreen shrub/(July)Sep–Nov/95–1970	Not expected to occur. No suitable vegetation present.
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	FE/SE/1B.1/Covered	Coastal scrub, Valley and foothill grassland, Vernal pools; mesic/annual / perennial herb/Apr–June/65–2035	Low potential to occur. There are no vernal pools on site.
<i>Erysimum ammophilum</i>	sand-loving wallflower	None/None/1B.2/None	Chaparral (maritime), Coastal dunes, Coastal scrub; sandy, openings/perennial herb/Feb–June/0–195	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Erythranthe diffusa</i>	Palomar monkeyflower	None/None/4.3/None	Chaparral, Lower montane coniferous forest; sandy or gravelly/annual herb/Apr–June/4000–6005	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Euphorbia misera</i>	cliff spurge	None/None/2B.2/Covered	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; rocky/perennial shrub/Dec–Aug(Oct)/30–1640	Not expected to occur. No suitable vegetation present.
<i>Ferocactus viridescens</i>	San Diego barrel cactus	None/None/2B.1/Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/perennial stem succulent/May–June/5–1475	Absent. This perennial stem succulent would have been observed during the site visits.
<i>Harpagonella palmeri</i>	Palmer's grapplinghook	None/None/4.2/None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay; open grassy areas within shrubland/annual herb/Mar–May/65–3135	Not expected to occur. There is no suitable clay soil present.
<i>Hazardia orcuttii</i>	Orcutt's hazardia	None/ST/1B.1/Covered	Chaparral (maritime), Coastal scrub; often clay/perennial evergreen shrub/Aug–Oct/260–280	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Holocarpa virgata</i> ssp. <i>elongata</i>	graceful tarplant	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/annual herb/May–Nov/195–3610	Low potential to occur. Site is relatively disturbed and this plant was not observed on the adjacent Sunrise Specific Plan site during rare plant surveys.
<i>Hordeum intercedens</i>	vernal barley	None/None/3.2/None	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal	Low potential to occur. There is no suitable vernal pool habitat present.

APPENDIX B (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR/Draft Escondido Subarea Plan ¹)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
			pools/annual herb/Mar–June/15–3280	
<i>Horkelia truncata</i>	Ramona horkelia	None/None/1B.3/None	Chaparral, Cismontane woodland; clay, gabbroic/perennial herb/May–June/1310–4265	Not expected to occur. There is no suitable clay soil or vegetation present and the site is outside of the species' known elevation range.
<i>Isocoma menziesii</i> var. <i>decumbens</i>	decumbent goldenbush	None/None/1B.2/None	Chaparral, Coastal scrub (sandy, often in disturbed areas)/perennial shrub/Apr–Nov/30–445	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Iva hayesiana</i>	San Diego marsh-elder	None/None/2B.2/Covered	Marshes and swamps, Playas/perennial herb/Apr–Oct/30–1640	Not expected to occur. No suitable vegetation present.
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	None/None/4.2/None	Coastal dunes (mesic), Meadows and seeps (alkaline seeps), Marshes and swamps (coastal salt)/perennial rhizomatous herb/(Mar)May–June/5–2955	Not expected to occur. No suitable vegetation present.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None/None/1B.1/None	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/Feb–June/0–4005	Not expected to occur. No suitable vegetation present.
<i>Lepechinia cardiophylla</i>	heart-leaved pitcher sage	None/None/1B.2/None	Closed-cone coniferous forest, Chaparral, Cismontane woodland/perennial shrub/Apr–July/1705–4495	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Leptosyne maritima</i>	sea dahlia	None/None/2B.2/None	Coastal bluff scrub, Coastal scrub/perennial herb/Mar–May/15–490	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Lycium californicum</i>	California box-thorn	None/None/4.2/None	Coastal bluff scrub, Coastal scrub/perennial shrub/(Dec)Mar, June, July, Aug/15–490	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Microseris douglasii</i> ssp. <i>platycarpha</i>	small-flowered microseris	None/None/4.2/None	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/annual herb/Mar–May/45–3510	Not expected to occur. There is no suitable clay soil present.
<i>Monardella hypoleuca</i> ssp.	intermediate monardella	None/None/1B.3/None	Chaparral, Cismontane woodland, Lower montane coniferous forest (sometimes); Usually	Not expected to occur. The site is outside of the species' known elevation range

APPENDIX B (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR/Draft Escondido Subarea Plan ¹)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>intermedia</i>			understory/perennial rhizomatous herb/Apr– Sep/1310–4100	and there is no suitable vegetation present.
<i>Monardella hypoleuca</i> ssp. <i>lanata</i>	felt-leaved monardella	None/None/1B.2/None	Chaparral, Cismontane woodland/perennial rhizomatous herb/June–Aug/980–5165	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Navarretia fossalis</i>	spreading navarretia	FT/None/1B.1/None	Chenopod scrub, Marshes and swamps (assorted shallow freshwater), Playas, Vernal pools/annual herb/Apr–June/95–2150	Not expected to occur. No suitable vegetation present.
<i>Nemacaulis denudata</i> var. <i>denudata</i>	coast woolly- heads	None/None/1B.2/None	Coastal dunes/annual herb/Apr–Sep/0–330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Nemacaulis denudata</i> var. <i>gracilis</i>	slender cottonheads	None/None/2B.2/None	Coastal dunes, Desert dunes, Sonoran desert scrub/annual herb/(Mar)Apr–May/-160–1310	Not expected to occur. No suitable vegetation present.
<i>Nolina cismontana</i>	chaparral nolina	None/None/1B.2/None	Chaparral, Coastal scrub; sandstone or gabbro/perennial evergreen shrub/(Mar)May– July/455–4185	Not expected to occur. No suitable vegetation present.
<i>Orcuttia californica</i>	California Orcutt grass	FE/SE/1B.1/Covered	Vernal pools/annual herb/Apr–Aug/45–2165	Not expected to occur. No suitable vegetation present.
<i>Orobanche parishii</i> ssp. <i>brachyloba</i>	short-lobed broomrape	None/None/4.2/None	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy/perennial herb (parasitic)/Apr–Oct/5–1000	Not expected to occur. No suitable vegetation present.
<i>Pentachaeta aurea</i> ssp. <i>aurea</i>	golden-rayed pentachaeta	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/annual herb/Mar– July/260–6070	Low potential to occur. There are no records of this species within the Project vicinity (SDNHM 2020).
<i>Pogogyne abramsii</i>	San Diego mesa mint	FE/SE/1B.1/None	Vernal pools/annual herb/Mar–July/295–655	Not expected to occur. No suitable vegetation present.
<i>Pseudognaphalium leucocephalum</i>	white rabbit- tobacco	None/None/2B.2/None	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; sandy, gravelly/perennial herb/(July)Aug–Nov(Dec)/0–6890	Not expected to occur. No suitable vegetation present.

APPENDIX B (Continued)

Scientific Name	Common Name	Status (Federal/State/CRPR/Draft Escondido Subarea Plan ¹)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Psilocarphus brevisissimus</i> var. <i>multiflorus</i>	Delta woolly-marbles	None/None/4.2/None	Vernal pools/annual herb/May–June/30–1640	Not expected to occur. No suitable vegetation present.
<i>Quercus engelmannii</i>	Engelmann oak	None/None/4.2/Covered	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/Mar–June/160–4265	Absent. This perennial deciduous tree would have been observed during site visits.
<i>Salvia munzii</i>	Munz's sage	None/None/2B.2/None	Chaparral, Coastal scrub/perennial evergreen shrub/Feb–Apr/375–3495	Not expected to occur. No suitable vegetation present.
<i>Selaginella cinerascens</i>	ashy spike-moss	None/None/4.1/None	Chaparral, Coastal scrub/perennial rhizomatous herb/N.A./65–2100	Not expected to occur. No suitable vegetation present.
<i>Sidalcea neomexicana</i>	salt spring checkerbloom	None/None/2B.2/None	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; alkaline, mesic/perennial herb/Mar–June/45–5020	Not expected to occur. No suitable vegetation present.
<i>Stemodia durantifolia</i>	purple stemodia	None/None/2B.1/None	Sonoran desert scrub (often mesic, sandy)/perennial herb/(Jan)Apr, June, Aug, Sep, Oct, Dec/590–985	Not expected to occur. No suitable vegetation present.
<i>Stipa diegoensis</i>	San Diego County needle grass	None/None/4.2/None	Chaparral, Coastal scrub; rocky, often mesic/perennial herb/Feb–June/30–2625	Not expected to occur. No suitable vegetation present.
<i>Suaeda esteroa</i>	estuary seablite	None/None/1B.2/None	Marshes and swamps (coastal salt)/perennial herb/(May)July–Oct(Jan)/0–15	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
<i>Viguiera laciniata</i>	San Diego County viguiera	None/None/4.3/None	Chaparral, Coastal scrub/perennial shrub/Feb–June(Aug)/195–2460	Not expected to occur. No suitable vegetation present.

¹Coverage in the Escondido Subarea contingent upon approved Subarea Plans described in Table 1-1 of the Draft Escondido Subarea Plan. (Ogden and CBI 2001).

CDFW. 2020. RareFind, Version 5.2.14 (Commercial Subscription). California Natural Diversity Database (CNDDDB). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed December 2020. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>.

APPENDIX B (Continued)

SDNHM (San Diego Natural History Museum). 2020. Data retrieved from Herbarium and Plant Atlas databases for grid squares I9, I10, J9, and J10. San Diego County Plant Atlas Project. Online ed. Accessed December 2020. <http://www.sdplantatlas.org>

Appendix C

Special-Status Wildlife Species Potential to Occur within the Project Area

APPENDIX C

Special-Status Wildlife Species Potential to Occur within the Project Area

Scientific Name	Common Name	Status (Federal/State/Draft Escondido Subarea Plan!)	Habitat	Potential to Occur
<i>Amphibians</i>				
<i>Anaxyrus californicus</i>	arroyo toad	FE/SSC/Covered	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. No suitable vegetation or wetlands present.
<i>Spea hammondi</i>	western spadefoot	None/SSC/None	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley-foothill woodlands, pastures, and other agriculture	Low potential to occur. Some suitable habitat in grassland however there is on-site mowing that reduces the suitability of this habitat.
<i>Reptiles</i>				
<i>Actinemys marmorata</i>	western pond turtle	None/SSC/Covered	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. No suitable vegetation present.
<i>Anniella stebbinsi</i>	southern California legless lizard	None/SSC/None	Coastal dunes, stabilized dunes, beaches, dry washes, valley-foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Low potential to occur. Suitable open areas and some loose soils present, but the site is small and previously used for agriculture reducing the potential for this species to occur.
<i>Arizona elegans occidentalis</i>	California glossy snake	None/SSC/None	Commonly occurs in desert regions throughout southern California. Prefers open sandy areas with scattered brush. Also found in rocky areas.	Not expected to occur. No suitable habitat or soils present.
<i>Aspidoscelis hyperythra</i>	orange-throated whiptail	None/WL/Covered	Low-elevation coastal scrub, chaparral, and valley-foothill hardwood	Low potential to occur. Suitable open areas, but the site is small and previously used for agriculture reducing the potential for this species to occur.
<i>Aspidoscelis tigris stejnegeri</i>	San Diegan tiger whiptail	None/SSC/None	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Low potential to occur. Suitable open areas, but the site is small and previously used for agriculture reducing the potential for this

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/Draft Escondido Subarea Plan ¹)	Habitat	Potential to Occur
				species to occur.
<i>Crotalus ruber</i>	red diamondback rattlesnake	None/SSC/None	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Not expected to occur. No suitable vegetation present.
<i>Diadophis punctatus similis</i>	San Diego ringneck snake	None/None	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland habitats	Not expected to occur. No suitable vegetation present.
<i>Phrynosoma blainvillii</i>	Blainville's horned lizard	None/SSC/Covered	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley-foothill hardwood, conifer, riparian, pine-cypress, juniper, and annual grassland habitats	Low potential to occur. Grassland habitat present, but with lacks sandy soils and site is small and previously used for agriculture reducing the potential for this species to occur.
<i>Plestiodon skiltonianus interparietalis</i>	Coronado skink	None/WL	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	Not expected to occur. No suitable vegetation present.
<i>Salvadora hexalepis virgultea</i>	coast patch-nosed snake	None/SSC/None	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	Not expected to occur. No suitable vegetation present.
<i>Thamnophis hammondi</i>	two-striped gartersnake	None/SSC/None	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur. No suitable vegetation present.
<i>Thamnophis sirtalis</i> ssp. (Coastal plain from Ventura Co. to San Diego Co., from sea level to about 850 m.)	south coast garter snake	None/SSC/None	Marsh and upland habitats near permanent water and riparian vegetation	Not expected to occur. No suitable vegetation present.
<i>Birds</i>				
<i>Accipiter cooperii</i> (nesting)	Cooper's hawk	None/WL/Covered	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Low potential to nest on site due to lack of trees. There is one smaller eucalyptus in the ornamental area, but given the lack of overall trees and cover it is unlikely this species nests on site. It could forage on site.
<i>Agelaius tricolor</i>	tricolored	BCC/PSE, SSC/Covered	Nests near freshwater, emergent wetland with	Not expected to occur. No suitable vegetation

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/Draft Escondido Subarea Plan ¹)	Habitat	Potential to Occur
(nesting colony)	blackbird		cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	present.
<i>Aimophila ruficeps canescens</i>	Southern California rufous-crowned sparrow	None/WL/Covered	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Not expected to occur. No suitable vegetation present.
<i>Aquila chrysaetos</i> (nesting and wintering)	golden eagle	BCC/FP, WL/None	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	Low potential to forage due to small site and urbanized environment. No potential to occur while nesting due to lack of nest terrain.
<i>Artemisiospiza belli belli</i>	Bell's sage sparrow	BCC/WL/Covered	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Not expected to occur. No suitable vegetation present.
<i>Athene cunicularia</i> (burrow sites and some wintering sites)	burrowing owl	BCC/SSC/None	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Low potential to occur. Suitable grassland habitat present but reduced suitability due to disturbance from human use of the site and routine mowing. This species (or sign) was not observed during site visits.
<i>Buteo swainsoni</i> (nesting)	Swainson's hawk	BCC/ST/None	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to occur. The site is outside of the species' known geographic range.
<i>Campylorhynchus brunneicapillus sandiegensis</i> (San Diego and Orange Counties only)	coastal cactus wren	BCC/SSC/None	Southern cactus scrub patches	Not expected to occur due to lack of cactus habitat.
<i>Charadrius alexandrinus nivosus</i> (nesting)	western snowy plover	FT, BCC/SSC/None	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near	Not expected to occur. No suitable vegetation present and too far inland.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/Draft Escondido Subarea Plan ¹)	Habitat	Potential to Occur
			saline or alkaline lakes, reservoirs, and ponds	
<i>Circus hudsonius</i> (nesting)	northern harrier	None/SSC/Covered	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Not expected to occur. The site is outside of the species' known geographic range for breeding and there is no suitable vegetation present. The grassland could function as foraging for the species however the site is too small and there is disturbance from human use that would preclude foraging.
<i>Coccyzus americanus occidentalis</i> (nesting)	western yellow-billed cuckoo	FT, BCC/SE/None	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. No suitable vegetation present.
<i>Elanus leucurus</i> (nesting)	white-tailed kite	None/FP/None	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Low potential to nest on site due to lack of trees. There is one smaller eucalyptus in the ornamental area, but given the lack of overall trees and cover it is unlikely this species nests on site. It could forage on site.
<i>Empidonax traillii extimus</i> (nesting)	southwestern willow flycatcher	FE/SE/Covered	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. No suitable vegetation present.
<i>Icteria virens</i> (nesting)	yellow-breasted chat	None/SSC/None	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Not expected to occur. No suitable riparian woodland habitat present.
<i>Ixobrychus exilis</i> (nesting)	least bittern	BCC/SSC/None	Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation	Not expected to occur. No suitable vegetation present.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	BCC/ST, FP/None	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. No suitable vegetation present.
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	None/SE/None	Nests and forages in coastal saltmarsh dominated by pickleweed (<i>Salicornia</i> spp.)	Not expected to occur. No suitable vegetation present and location is too far inland.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/Draft Escondido Subarea Plan ¹)	Habitat	Potential to Occur
<i>Plegadis chihi</i> (nesting colony)	white-faced ibis	None/WL/Covered	Nests in shallow marshes with areas of emergent vegetation; winter foraging in shallow lacustrine waters, flooded agricultural fields, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries	Not expected to occur. No suitable vegetation present.
<i>Polioptila californica californica</i>	coastal California gnatcatcher	FT/SSC/Covered	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Not expected to occur. No suitable vegetation present. Focused surveys covered the southern portion of the Project site and did not find any California gnatcatcher.
<i>Rallus obsoletus levipes</i>	Ridgway's rail	FE/SE, FP/None	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. No suitable vegetation present.
<i>Riparia riparia</i> (nesting)	bank swallow	None/ST/None	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	Not expected to occur. The site is outside of the species' known geographic range for nesting and there is no suitable riparian sandy bank habitat present.
<i>Setophaga petechia</i> (nesting)	yellow warbler	BCC/SSC/None	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Not expected to occur. No suitable vegetation present.
<i>Sternula antillarum browni</i> (nesting colony)	California least tern	FE/SE, FP/None	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. No suitable vegetation present.
<i>Vireo bellii pusillus</i> (nesting)	least Bell's vireo	FE/SE/Covered	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. No suitable vegetation present.
<i>Fishes</i>				
<i>Eucyclogobius newberryi</i>	tidewater goby	FE/SSC/None	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County, to the mouth of the Smith River	Not expected to occur. No suitable vegetation present.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/Draft Escondido Subarea Plan ¹)	Habitat	Potential to Occur
<i>Gila orcuttii</i>	arroyo chub	None/SSC/None	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	Not expected to occur. No suitable vegetation present.
<i>Mammals</i>				
<i>Antrozous pallidus</i>	pallid bat	None/SSC/None	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Moderate potential to forage. Suitable open, dry grasslands present with potential roosting buildings nearby. No roost potential onsite.
<i>Chaetodipus californicus femoralis</i>	Dulzura pocket mouse	None/SSC/None	Low potential to occur. Grasslands but no suitable desert habitats present. This species has not been recorded in the vicinity.	Low potential to occur. Grasslands but no suitable desert habitats present. This species has not been recorded in the vicinity.
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse	None/SSC/Covered	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland	Low potential to occur. Grasslands but no suitable desert habitats present. This species has not been recorded in the vicinity.
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat	None/SSC/None	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland; roosts in caves, mines, and buildings	Not expected to occur. No suitable vegetation present.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None/SSC/None	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Low potential to occur. Xeric areas present but no roosting habitat.
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	FE/ST/None	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas	Low potential to occur. Suitable habitat present but no records in the vicinity and high disturbance present.
<i>Eumops perotis californicus</i>	western mastiff bat	None/SSC/None	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Low potential to occur. Open foraging habitat present but limited nearby roosting habitat.

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/Draft Escondido Subarea Plan ¹)	Habitat	Potential to Occur
<i>Lasiurus xanthinus</i>	western yellow bat	None/SSC/None	Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms	Not expected to occur. No suitable vegetation present.
<i>Leptonycteris yerbabuenae</i>	lesser long-nosed bat	FE/None/None	Sonoran desert scrub, semi-desert grasslands, lower oak woodlands	Not expected to occur. The site is outside of the species' known geographic range.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	None/SSC/Covered	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Not expected to occur. Suitable habitat is present however isolation from other habitats and habitat disturbance from human use reduces suitability and likelihood for this species to occur on site.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None/SSC/None	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Not expected to occur. Site is located too far west for the occurrence of this species.
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	None/SSC/None	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	Not expected to occur. No suitable vegetation present.
<i>Nyctinomops macrotis</i>	big free-tailed bat	None/SSC/None	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Not expected to occur. No suitable vegetation present.
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	FE/SSC/Covered	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Not expected to occur. No suitable habitat present.
<i>Taxidea taxus</i>	American badger	None/SSC/None	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Low potential to occur. Suitable vegetation and soils present; however isolation from other habitats and habitat disturbance from human use reduces suitability and likelihood for this species to occur on site.
<i>Invertebrates</i>				
<i>Bombus crotchii</i>	Crotch bumble bee	None/PSE	Open grassland and scrub communities supporting suitable floral resources.	Low potential to occur. While there is grassland on site, the abundance of non-native grasses and disturbance seems to limit the flowering plants based on

APPENDIX C (Continued)

Scientific Name	Common Name	Status (Federal/State/Draft Escondido Subarea Plan ¹)	Habitat	Potential to Occur
				observations during the July 2017 site visit.
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT/None/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats	Not expected to occur. No suitable pool habitat present.
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	FE/None/Covered	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No suitable pool habitat present.
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	FE/None/Covered	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No suitable pool habitat present.

¹Coverage in the Escondido Subarea contingent upon approved Subarea Plans described in Table 1-1 of the Draft Escondido Subarea Plan. (Ogden and CBI 2001).

CDFW. 2020. RareFind, Version 5.2.14 (Commercial Subscription). California Natural Diversity Database (CNDDDB). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed December 2020. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>.

Appendix D

Wetland Determination Data Forms (2017-2020)

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Orix - Sunrise City/County: _____ Sampling Date: 7/6/2017
 Applicant/Owner: Integral Communities State: CA Sampling Point: DS1
 Investigator(s): Jake Marcon Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Adjacent to Meyers Ave.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
Total Cover: _____ %				
Sapling/Shrub Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: _____ %				
Herb Stratum				
1. <i>Lythrum hyssopifolia</i>	60	Yes	OBL	
2. <i>Ambrosia psilostachya</i>	15	Yes	FACU	
3. <i>Lysimachia arvensis</i>	5	No	FAC	
4. <i>Dienandra fasciculata</i>	2	No	Not Listed	
5. <i>Croton setiger</i>	2	No	Not Listed	
6. _____				
7. _____				
8. _____				
Total Cover: 84 %				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: _____ %				
% Bare Ground in Herb Stratum _____ %	% Cover of Biotic Crust _____ %			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50.0 %** (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	60	x 1 =		60
FACW species		x 2 =		0
FAC species	5	x 3 =		15
FACU species	15	x 4 =		60
UPL species	4	x 5 =		20
Column Totals:	84	(A)		155 (B)
Prevalence Index = B/A =				1.85

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: Using 2016 National Wetland Plants list (ACOE)

SOIL

Sampling Point: DS1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10 YR 3 4	95					Sandy Loam	No redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<p>Indicators for Problematic Hydric Soils:⁴</p> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No indicators of hydric soils. Soil compact starting at 6 inches below ground surface.

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<p><u>Secondary Indicators (2 or more required)</u></p> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No indicators of overland flow.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Orix - Sunrise City/County: _____ Sampling Date: 7/6/2017
 Applicant/Owner: Integral Communities State: CA Sampling Point: DS2
 Investigator(s): Jake Marcon Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Grade lowered approximately 4 feet by Meyers Ave. road cut. No indication of flow leaving the site.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
Total Cover: _____ %				
Sapling/Shrub Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: _____ %				
Herb Stratum				
1. <i>Lythrum hyssopifolia</i>	50	Yes	OBL	
2. <i>Juncus xiphioides</i>	30	Yes	OBL	
3. <i>Ambrosia psilostachya</i>	20	Yes	FACU	
4. <i>Avena barbata</i>	10	No	Not Listed	
5. <i>Sonchus asper</i>	2	No	FAC	
6. _____				
7. _____				
8. _____				
Total Cover: 112%				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: _____ %				
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)
 Total Number of Dominant Species Across All Strata: **3** (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: **66.7 %** (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species **80** x 1 = **80**
 FACW species _____ x 2 = **0**
 FAC species **2** x 3 = **6**
 FACU species **20** x 4 = **80**
 UPL species **10** x 5 = **50**
 Column Totals: **112** (A) **216** (B)
 Prevalence Index = B/A = **1.93**

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: Using 2016 National Wetland Plants list (ACOE)

SOIL

Sampling Point: DS2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 8	10 YR 3 4	95	2.5 YR 4 6	5			Sandy Loam	
8 - 10	10 YR 3 2	80					Sandy Loam	
10 - 12	Gley 1 4 5GL	80					Sandy Loam	
12 - 16	10 YR 4 4	99						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input checked="" type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)		Indicators for Problematic Hydic Soils:⁴ <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)	
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⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydic Soil Present? Yes No

Remarks: Sulfur smell present within top 12 inches. Soil moist.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)		Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)	
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Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No indicators of overland flow.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Orix - Sunrise City/County: _____ Sampling Date: 7/6/2017
 Applicant/Owner: Integral Communities State: CA Sampling Point: DS3
 Investigator(s): Jake Marcon Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>At historic grade, adjacent to Meyers Ave. road cut.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
Total Cover: _____ %				
Sapling/Shrub Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: _____ %				
Herb Stratum				
1. <i>Erodium botrys</i>	75	Yes	FACU	
2. <i>Croton setiger</i>	55	Yes	Not Listed	
3. <i>Avena barbata</i>	15	Yes	Not Listed	
4. <i>Ambrosia psilostachya</i>	10	No	FACU	
5. <i>Sonchus asper</i>	2	No	FAC	
6. _____				
7. _____				
8. _____				
Total Cover: 157%				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: _____ %				
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	2	x 3 =	6
FACU species	85	x 4 =	340
UPL species	70	x 5 =	350
Column Totals:	157 (A)		696 (B)
Prevalence Index = B/A =			4.43

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: Using 2016 National Wetland Plants list (ACOE)

SOIL

Sampling Point: DS3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 16	10 YR 3 6	98					Loamy Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<p>Indicators for Problematic Hydric Soils:⁴</p> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No indicators of hydric soils present.

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<p><u>Secondary Indicators (2 or more required)</u></p> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No indicators of wetland hydrology.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Orix - Sunrise City/County: _____ Sampling Date: 7/6/2017
 Applicant/Owner: Integral Communities State: CA Sampling Point: DS4
 Investigator(s): Jake Marcon Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>No soil moisture present, infrequent indications of overland flow.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
Total Cover: _____ %				
Sapling/Shrub Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: _____ %				
Herb Stratum				
1. <u>Croton setiger</u>	75	Yes	Not Listed	
2. <u>Avena barbata</u>	55	Yes	Not Listed	
3. <u>Ambrosia psilostachya</u>	15	Yes	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: 145%				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: _____ %				
% Bare Ground in Herb Stratum _____ %	% Cover of Biotic Crust _____ %			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0.0 %** (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species	15	x 4 =	60
UPL species	130	x 5 =	650
Column Totals:	145 (A)		710 (B)
Prevalence Index = B/A =			4.90

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: Using 2016 National Wetland Plants list (ACOE)

SOIL

Sampling Point: DS4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 16	10 YR 3 3	99					Sandy Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils:⁴ <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: No indicators of hydric soils present. Soil very dry and dusty.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Infrequent drift deposits observed within plot. Likely due to runoff from above average rains this year.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Orix - Sunrise City/County: _____ Sampling Date: 7/6/2017
 Applicant/Owner: Integral Communities State: CA Sampling Point: DS5
 Investigator(s): Jake Marcon Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: <u>Data station within a swale on site lacking bed and bank. Data station is representative of vegetation community within swale.</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>50.0 %</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:	
Sapling/Shrub Stratum		Total Cover: <u>_____ %</u>		Total % Cover of:	Multiply by:
1. _____	_____	_____	_____	OBL species <u>50</u>	x 1 = <u>50</u>
2. _____	_____	_____	_____	FACW species _____	x 2 = <u>0</u>
3. _____	_____	_____	_____	FAC species _____	x 3 = <u>0</u>
4. _____	_____	_____	_____	FACU species _____	x 4 = <u>0</u>
5. _____	_____	_____	_____	UPL species <u>62</u>	x 5 = <u>310</u>
Herb Stratum		Total Cover: <u>112 %</u>		Column Totals:	<u>112</u> (A) <u>360</u> (B)
1. <i>Lythrum hyssopifolia</i>	50	Yes	OBL	Prevalence Index = B/A = <u>3.21</u>	
2. <i>Avena barbata</i>	60	Yes	Not Listed	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
3. <i>Festuca perennis</i>	2	No	Not Listed		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.	
6. _____	_____	_____	_____		
7. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
8. _____	_____	_____	_____		
Woody Vine Stratum		Total Cover: <u>_____ %</u>			
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %			

Remarks: Using 2016 National Wetland Plants list (ACOE)

SOIL

Sampling Point: DS5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 14	10 YR 3 4	99					Sandy Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)		Indicators for Problematic Hydric Soils:⁴ <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: No indicators of hydric soils observed. Soil very dry and dusty.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Swale apparent due to location of *Lythrum hyssopifolia*, no bed and bank, no indicators of wetland hydrology observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Orix - Sunrise City/County: _____ Sampling Date: 9/21/2018
 Applicant/Owner: Integral Communities State: CA Sampling Point: DS A
 Investigator(s): Callie Amoaku Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): _____
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>Grade lowered approximately 4 feet by Meyers Ave. road cut. Location previously sampled in July 2017 (DS2).</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
Total Cover: _____ %				
Sapling/Shrub Stratum				
1. <u>Isocoma menziesi</u>	2	Yes	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: 2 %				
Herb Stratum				
1. <u>Ambrosia psilostachya</u>	2	Yes	FACU	
2. <u>Avena barbata</u>	2	Yes	Not Listed	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: 4 %				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: _____ %				
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	0
FACW species	_____	x 2 =	0
FAC species	2	x 3 =	6
FACU species	2	x 4 =	8
UPL species	2	x 5 =	10
Column Totals:	6	(A)	24 (B)
Prevalence Index = B/A =			4.00

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: 2016 National Wetland Plants List

SOIL

Sampling Point: DS A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0 - 1	10 YR 3/3	>99	7.5YR 5/8	<1	C	M	Sandy Loam
1 - 6	10 YR 3/3	100					Sandy Loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<p>Indicators for Problematic Hydric Soils:⁴</p> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

<p>Restrictive Layer (if present): Type: <u>Very hard soil</u> Depth (inches): <u>6+</u></p>	<p>Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/></p>
<p>Remarks:</p>	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<p><u>Secondary Indicators (2 or more required)</u></p> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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<p>Field Observations:</p> Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	<p>Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Orix City/County: Escondido/San Diego Sampling Date: 12/7/20
 Applicant/Owner: Integral Communities State: CA Sampling Point: 2020 - DS 1
 Investigator(s): Callie Amoaku Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: Grade lowered approximately 4 feet by Meyers Avenue. Cut area at toe of slope before curb. Location previously sampled in July 2017 and September 2018.	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
Total Cover: _____ %				
Sapling/Shrub Stratum				
1. <i>Isocoma menziesii</i>	2	Yes	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: 2 %				
Herb Stratum				
1. _____				
2. <i>Hirschfeldia incana</i>	2	No	Not Listed	
3. <i>Ambrosia psilostachya</i>	15	Yes	FACU	
4. <i>Lythrum hyssopifolium</i>	10	Yes	OBL	
5. <i>Cynodon dactylon</i>	1	No	FACU	
6. <i>Avena barbata</i>	10	Yes	Not Listed	
7. <i>Lysimachia arvensis</i>	1	No	FAC	
8. _____				
Total Cover: 39 %				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: _____ %				
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species		x 1 =	0	
FACW species		x 2 =	0	
FAC species	3	x 3 =	9	
FACU species		x 4 =	0	
UPL species		x 5 =	0	
Column Totals:	3	(A)	9	(B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: The cut grade at the toe of slope bordered by the curb and Meyers Avenue allows for some runoff to settle in this low point, facilitating growth of wetter annual herbs. 2018 National Wetland List - AW

SOIL

Sampling Point: 2020 - D

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/3	100					Sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils:⁴ <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____ Remarks: Hard compact soil	Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
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HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

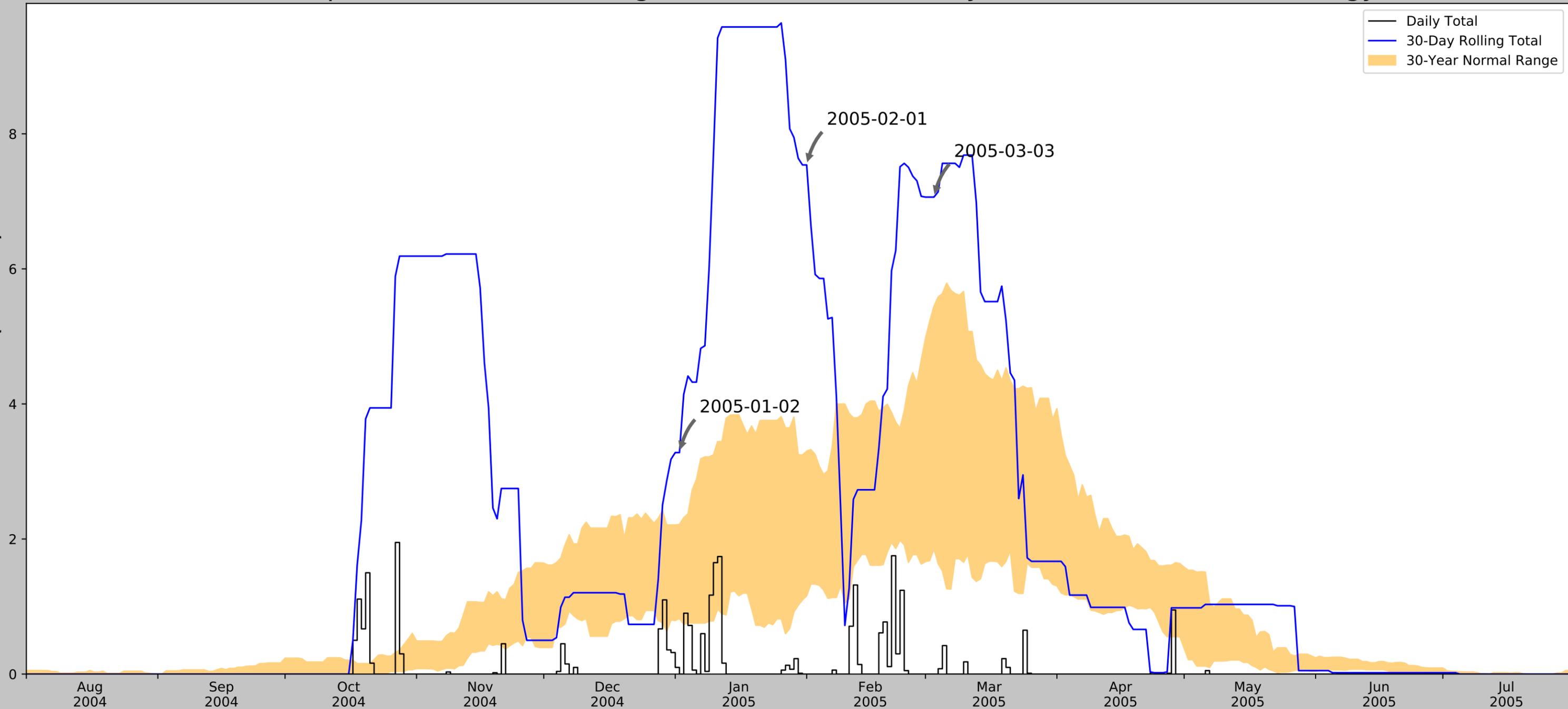
Remarks: No signs of hydrology.

Appendix E

Antecedent Precipitation vs Normal Range based
on NOAA's Daily Global Historical Climatology

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

Rainfall (Inches)



Coordinates	33.130356, -117.129175
Observation Date	2005-03-03
Elevation (ft)	719.04
Drought Index (PDSI)	Extreme wetness
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2005-03-03	1.854724	5.446063	7.062992	Wet	3	3	9
2005-02-01	1.15748	3.302756	7.53937	Wet	3	2	6
2005-01-02	0.822047	2.216929	3.279528	Wet	3	1	3
Result							Wetter than Normal - 18

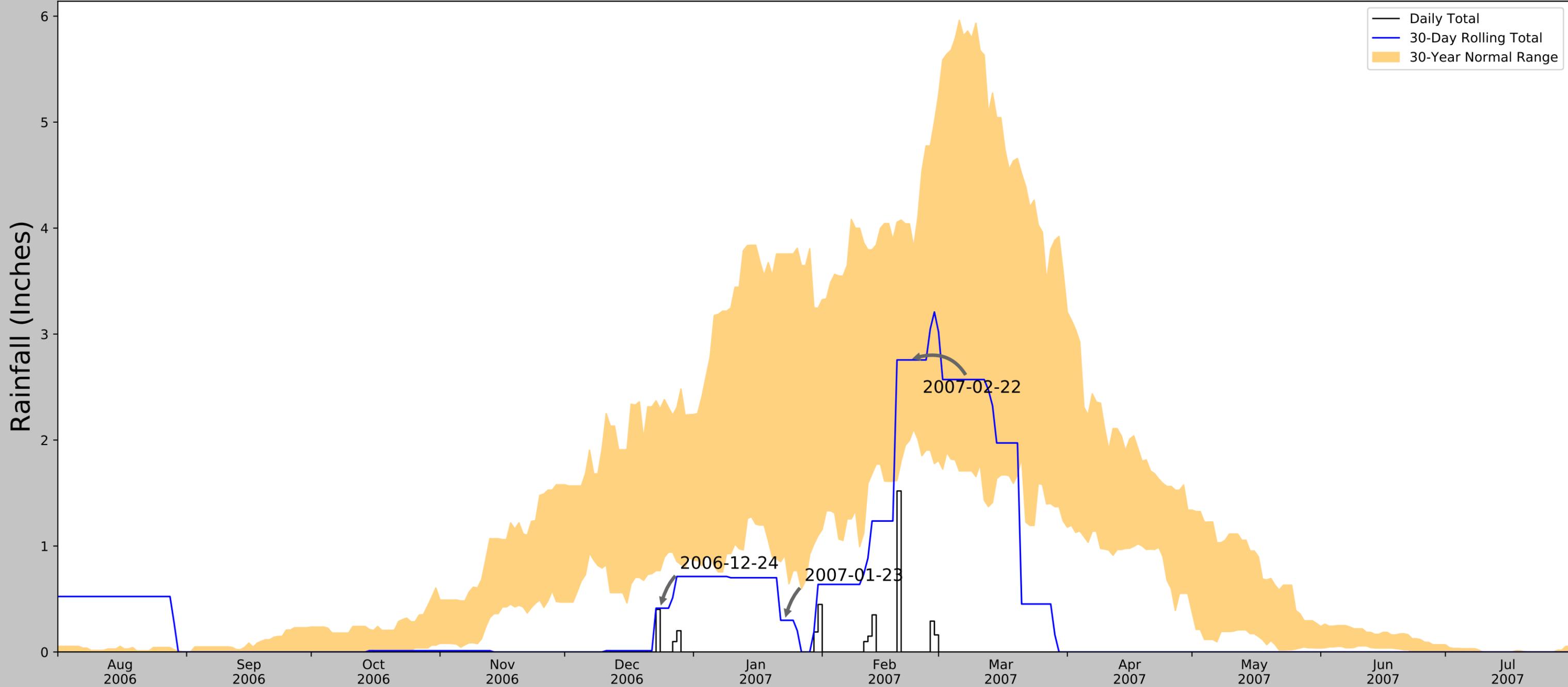


Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

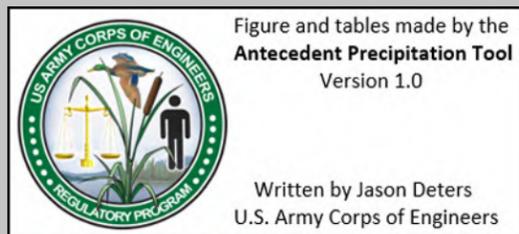
Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
ESCONDIDO #2	33.1211, -117.09	600.066	2.355	118.974	1.34	9011	89
ESCONDIDO	33.1167, -117.0833	659.121	2.817	59.919	1.437	2037	0
POWAY VALLEY	33.0194, -117.0308	647.966	9.551	71.074	4.977	297	1
SAN PASQUAL ANIMAL PK	33.0956, -116.9975	419.948	7.99	299.092	5.985	8	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



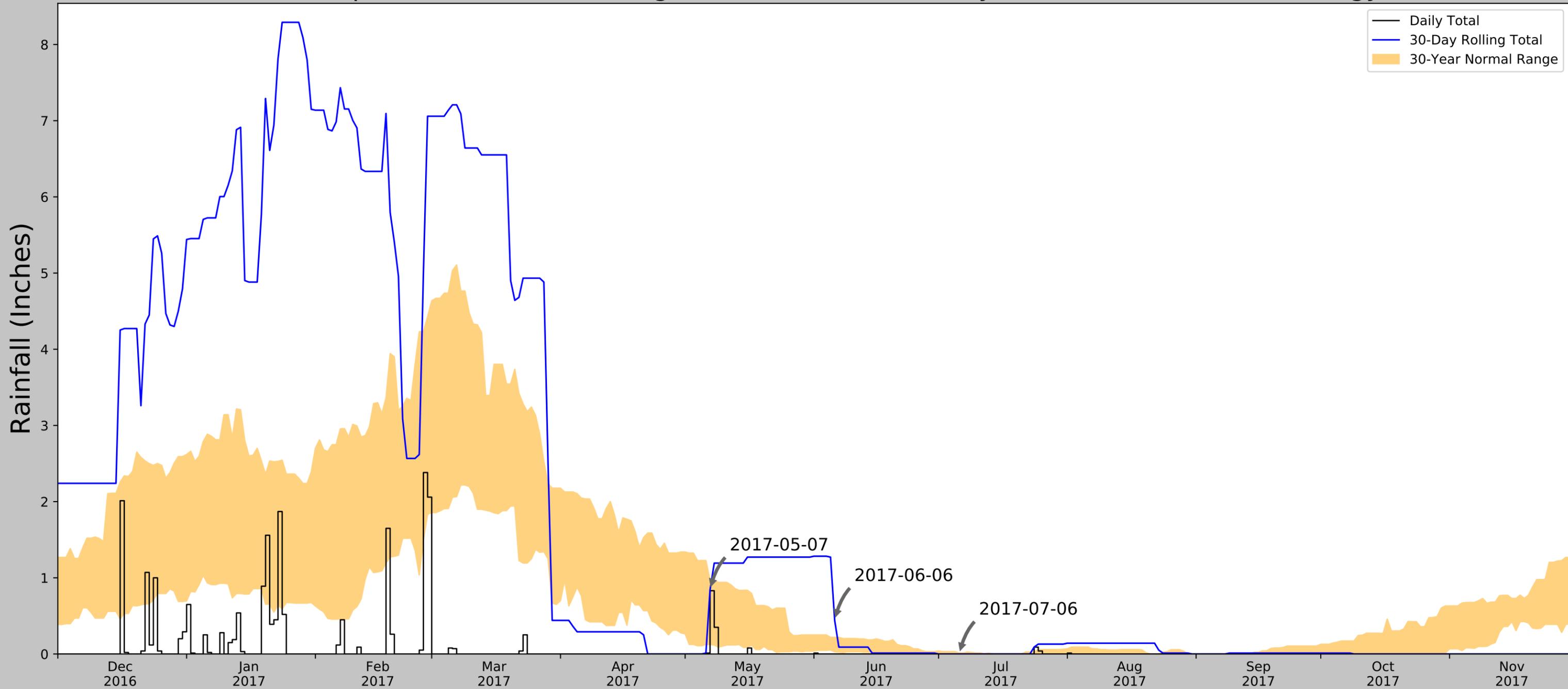
Coordinates	33.130356, -117.129175
Observation Date	2007-02-22
Elevation (ft)	719.04
Drought Index (PDSI)	Severe drought
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2007-02-22	1.996457	4.040551	2.755906	Normal	2	3	6
2007-01-23	0.91378	3.755906	0.299213	Dry	1	2	2
2006-12-24	0.767717	2.294882	0.413386	Dry	1	1	1
Result							Drier than Normal - 9



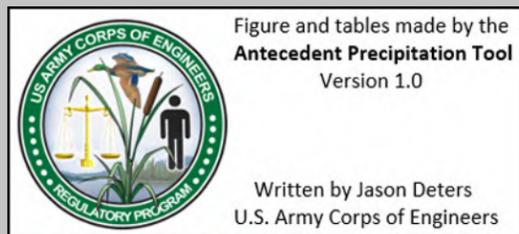
Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
ESCONDIDO #2	33.1211, -117.09	600.066	2.355	118.974	1.34	9450	78
ESCONDIDO	33.1167, -117.0833	659.121	2.817	59.919	1.436	1307	0
POWAY VALLEY	33.0194, -117.0308	647.966	9.551	71.074	4.977	556	10
SAN PASQUAL ANIMAL PK	33.0956, -116.9975	419.948	7.99	299.092	5.985	9	2
CARLSBAD PALOMAR AP	33.1281, -117.2794	328.084	8.694	390.956	7.311	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



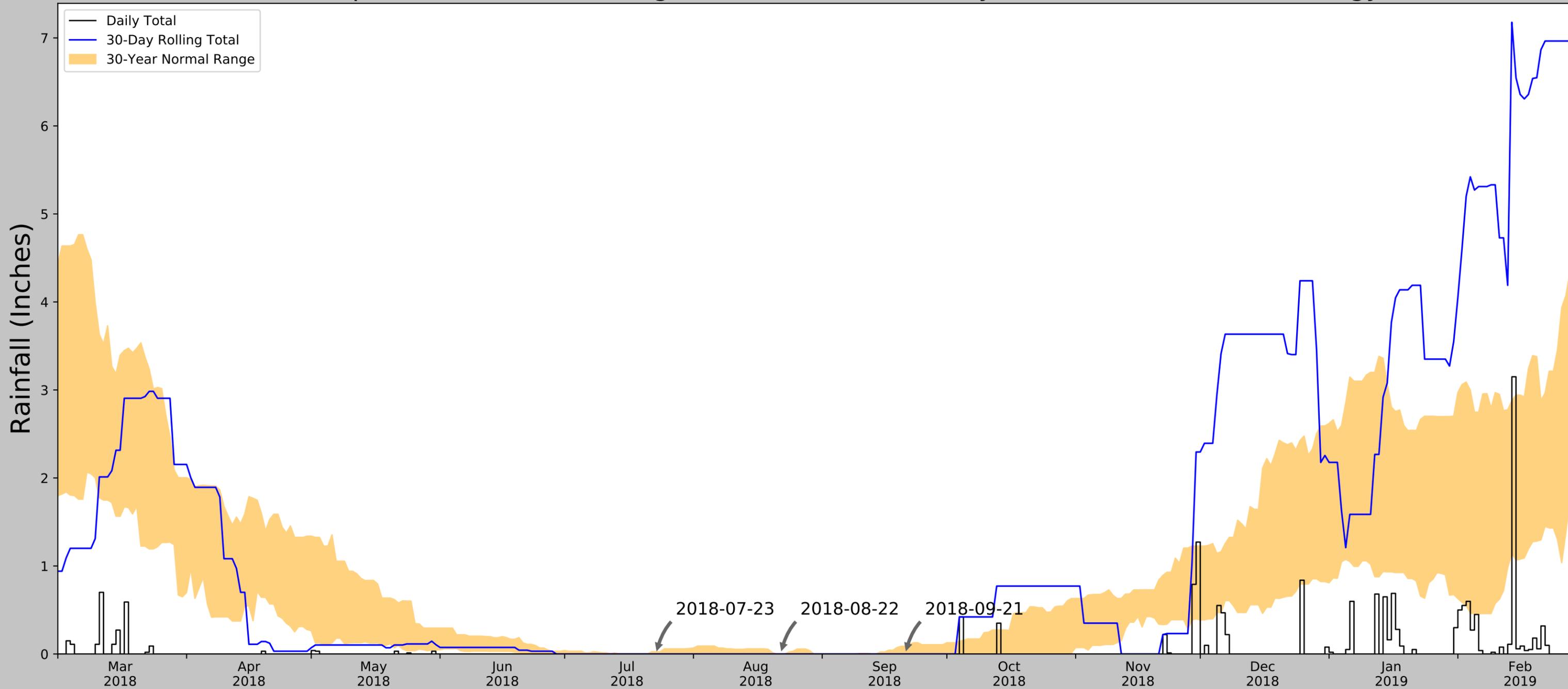
Coordinates	33.130356, -117.129175
Observation Date	2017-07-06
Elevation (ft)	719.04
Drought Index (PDSI)	Moderate drought
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2017-07-06	0.0	0.011811	0.0	Normal	2	3	6
2017-06-06	0.027953	0.21811	0.440945	Wet	3	2	6
2017-05-07	0.125197	0.96811	0.84252	Normal	2	1	2
Result							Normal Conditions - 14



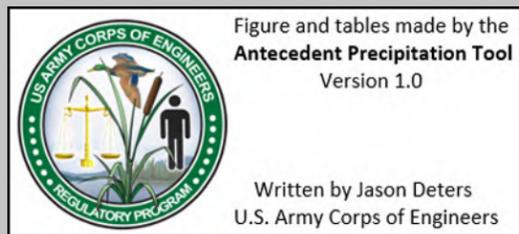
Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
ESCONDIDO #2	33.1211, -117.09	600.066	2.355	118.974	1.34	10043	90
SAN MARCOS 2.5 ENE	33.1472, -117.1316	666.011	1.172	53.029	0.59	686	0
POWAY VALLEY	33.0194, -117.0308	647.966	9.551	71.074	4.977	584	0
SAN PASQUAL ANIMAL PK	33.0956, -116.9975	419.948	7.99	299.092	5.985	9	0
CARLSBAD PALOMAR AP	33.1281, -117.2794	328.084	8.694	390.956	7.311	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



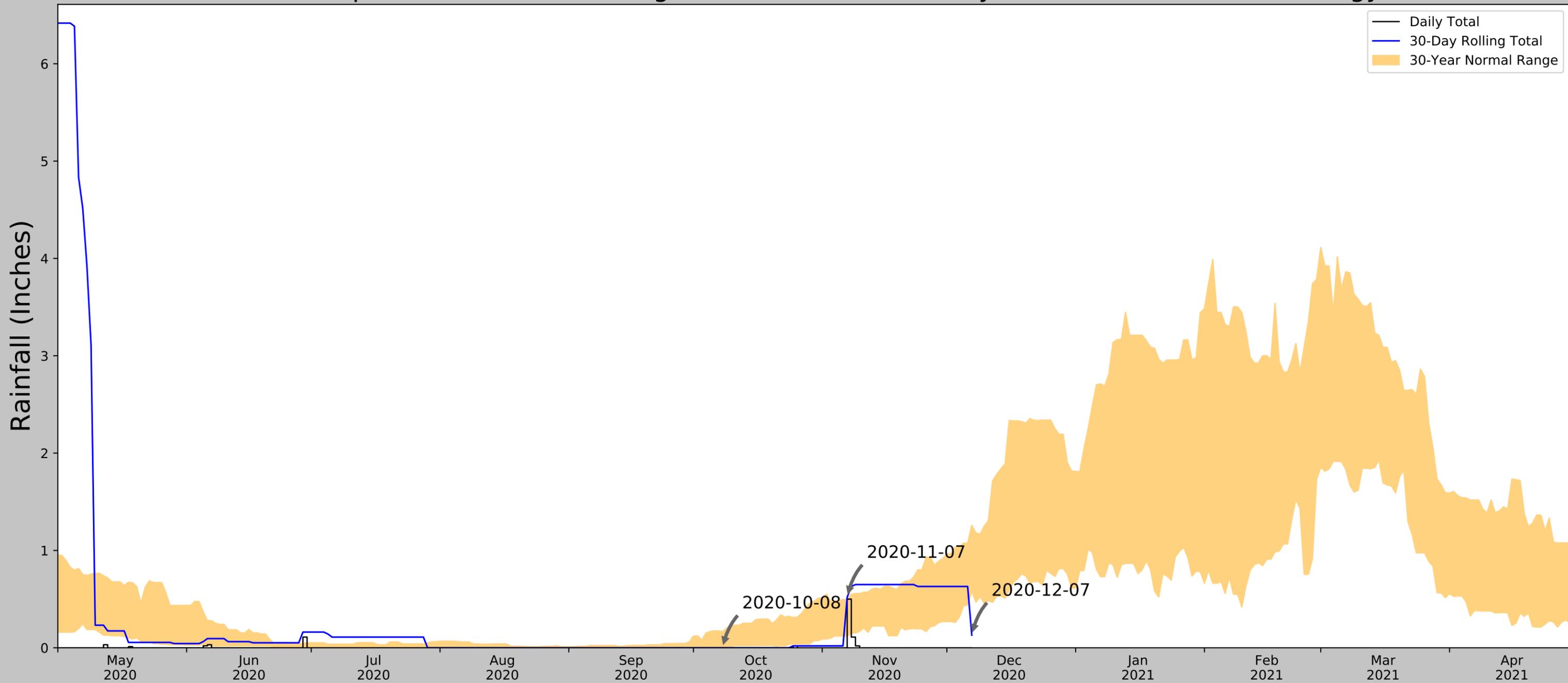
Coordinates	33.130356, -117.129175
Observation Date	2018-09-21
Elevation (ft)	719.04
Drought Index (PDSI)	Extreme drought
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2018-09-21	0.0	0.087402	0.0	Normal	2	3	6
2018-08-22	0.0	0.0	0.0	Normal	2	2	4
2018-07-23	0.0	0.025984	0.0	Normal	2	1	2
Result							Normal Conditions - 12



Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
ESCONDIDO #2	33.1211, -117.09	600.066	2.355	118.974	1.34	10047	90
SAN MARCOS 2.5 ENE	33.1472, -117.1316	666.011	1.172	53.029	0.59	686	0
POWAY VALLEY	33.0194, -117.0308	647.966	9.551	71.074	4.977	581	0
SAN PASQUAL ANIMAL PK	33.0956, -116.9975	419.948	7.99	299.092	5.985	8	0
CARLSBAD PALOMAR AP	33.1281, -117.2794	328.084	8.694	390.956	7.311	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	33.130356, -117.129175
Observation Date	2020-12-07
Elevation (ft)	719.04
Drought Index (PDSI)	Mild drought (2020-11)
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2020-12-07	0.581496	1.25748	0.129921	Dry	1	3	3
2020-11-07	0.121654	0.496457	0.519685	Wet	3	2	6
2020-10-08	0.008268	0.165748	0.0	Dry	1	1	1
Result							Normal Conditions - 10

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
CARLSBAD PALOMAR AP	33.1281, -117.2794	328.084	8.694	390.956	7.311	8215	87
SAN MARCOS 2.5 ENE	33.1472, -117.1316	666.011	1.172	53.029	0.59	2	0
ESCONDIDO 2.8 SW	33.1063, -117.1037	662.074	2.222	56.966	1.126	0	1
ESCONDIDO #2	33.1211, -117.09	600.066	2.355	118.974	1.34	3085	0
ESCONDIDO 0.8 NNE	33.1474, -117.0656	733.924	3.862	14.884	1.795	0	2
POWAY VALLEY	33.0194, -117.0308	647.966	9.551	71.074	4.977	47	0
SAN PASQUAL ANIMAL PK	33.0956, -116.9975	419.948	7.99	299.092	5.985	4	0

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