

February 13, 2020

Mr. Matt Quaglino Quaglino Properties 815 Fiero Lane San Luis Obispo, California 93401

RE: Biological Survey Results Memorandum for a Proposed Project at 862 Aerovista Place, San Luis Obispo, California

Dear Mr. Quaglino,

Terra Verde Environmental Consulting, LLC (Terra Verde) has prepared this memorandum to document the results of a biological assessment completed in support of a proposed development at 862 Aerovista Place, San Luis Obispo, California (APN 053-412-015; see Attachment A – Figure 1: Project Location and Survey Area Map). The proposed project includes a commercial development, including parking and associated infrastructure on an approximately 2.41-acre lot. The design plan includes re-routing a portion of an unnamed ephemeral drainage around proposed development.

Terra Verde completed a desktop literature review and field survey for the site, which focused on the identification of sensitive biological resources that are present or have the potential to occur on or in the vicinity of the proposed project site. In addition, a formal delineation of waters and wetlands was completed. All plant and wildlife species and any other sensitive biological resources observed while on site were recorded. This report is intended to provide information about current site conditions in order to inform project planning and may be used to support the environmental review process.

Existing Site Conditions

The proposed project site is located in the San Luis Obispo U.S. Geological Survey (USGS) 7.5-minute quadrangle, northwest of the San Luis Obispo County Regional Airport (Airport). The site supports ruderal herbaceous vegetation, which is regularly mowed. The topography, soils, and vegetation of the proposed project site and surrounding areas have been altered considerably through past land conversion and construction of adjacent commercial developments. The site



has been regularly mowed for fire control, as required by the City of San Luis Obispo. A review of historical aerial imagery indicates that the property has remained relatively unchanged since the early 2000s (Google Earth 1994-2019). Topography is mostly flat, with an elevation of approximately 150 to 154 feet (46 to 47 meters). An unnamed ephemeral drainage borders the western and northern edges of the site. The site is immediately bordered on the north, east, and south by commercial developments and on the west by an undeveloped field. The undeveloped field currently serves as a septic leach field managed by the Fiero Lane Mutual Water Company. Surrounding land uses include the Airport, commercial building parks, industrial businesses, rural and suburban residential areas, and agriculture (e.g., vineyards).

The unnamed ephemeral drainage on site (Drainage 1) enters the property through a culvert under Aerovista Place and flows generally northwest along the western edge of the property and onto the adjacent parcel. The drainage then makes a 90-degree turn and flows generally east along the northern edge of the site before making a second 90-degree turn and entering a 48-inch concrete box culvert. This drainage also receives runoff from the adjacent development to the east, via a shallow swale (Drainage 2) that extends from the edge of an existing parking lot to the 48-inch box culvert. This culvert flows northwest and outlets into the East Fork of San Luis Obispo Creek, a USGS blue line creek, approximately 900 feet northwest of the subject property (see Attachment A – Figure 2: Hydrologic Resources Map).

Survey Methodology

Prior to conducting field surveys, Terra Verde staff completed a background review of relevant literature pertaining to sensitive resources known to occur in the project vicinity, which included the following:

- Aerial photographs of the project site (Google Earth 1994 2019)
- USGS topographic map for the San Luis Obispo 7.5-minute quadrangle (National Geologic Map Database 2019)
- Online Soil Survey for San Luis Obispo County, California (Natural Resources Conservation Service 2019)
- Consortium of California Herbaria (CCH) online database of plant collections (CCH 2019)
- California Natural Diversity Database (CNDDB) list of state and federally listed specialstatus species documented in the project vicinity (California Department of Fish and Wildlife [CDFW] 2019)
- CNDDB map of special-status species that have been documented within a 2-mile radius of the project site (CDFW 2019) (see Attachment A – Figure 3: 2-mile CNDDB Map)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants documented in the project vicinity (CNPS 2019)
- United States Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS 2019a)
- USFWS National Wetland Inventory map (NWI) (USFWS 2019b)



- Wetland Delineation and Jurisdictional Determination Report for 862 Aerovista Place (APN 053-412-015), San Luis Obispo, California (Storrer Environmental Services [SES] 2019)
- Volney Enterprises' Aerovista Commercial at Aerovista Place (Survey Results Memorandum; Althouse and Meade 2013)

A list of regionally occurring special-status species was compiled based on records reported in the scientific database queries. This species list was used to inform the field survey effort.

Terra Verde botanist Kristen Nelson and SES botanist Jessica Peak completed a formal wetland delineation and jurisdictional delineation at the site on July 18, 2019 (refer to Wetland Delineation and Jurisdictional Determination Report, SES 2019). Ms. Nelson and Terra Verde biologist Sara Snyder conducted a follow-up survey on January 06, 2020, which included an assessment of site conditions and the potential for special-status species to occur. Principal biologist Brooke Langle has been to the site twice during site meetings with the owner, project engineer, and the Regional Water Quality Control Board staff. The survey area included the entire parcel and a visual scan of adjacent parcels (see Attachment A – Figure 1). All botanical and wildlife species encountered via direct and indirect observation (e.g., scat, track, call) were recorded during each survey (see Attachment B – List of Botanical and Wildlife Species Observed). Botanical species identifications and taxonomic nomenclature followed *The Jepson Manual: Vascular Plants of California*, 2nd edition (Baldwin et al. 2012), as well as taxonomic updates provided in the Jepson eFlora (Jepson Flora Project 2019).

Survey Results

No special-status species were observed during the survey; however, the survey was not conducted during the appropriate blooming period of all regionally occurring special-status botanical species, when plants are most readily identifiable. Based on the results of the background literature review and observations made in the field, it was determined that up to three special-status botanical species, two special-status wildlife species, and migratory nesting birds and raptors have the potential to occur within the survey area based on the presence of marginally suitable habitat. In addition to these species, jurisdictional aquatic habitat was observed within the survey area with marginally suitable habitat for vernal pool fairy shrimp (see Attachment A – Figure 2). A detailed discussion of these resources is included below.

Hydrological Resources

As noted above, an ephemeral drainage flows generally northwest across the western edge of the site (Drainage 1), and then bends and flows east across a portion of the northern edge of the site (see Figure 2). In addition, a shallow swale flows west across a portion of the northern edge of the site, connecting to the ephemeral drainage immediately upstream of the 48-inch concrete box culvert (Drainage 2). This swale conveys surface flows from the parking lot of the adjacent



development to the east. The limits of federal and state jurisdiction associated with Drainage 1 and Drainage 2 were assessed and mapped during the waters and wetlands delineation on July 18, 2019 (SES 2019). It was determined that both features likely fall under the jurisdiction of CDFW and the Regional Water Quality Control Board as waters of the state, and the U.S. Army Corps of Engineers as waters of the U.S.

Special-status Botanical Species

Due to the high degree of land manipulation (e.g., placed fill, regular mowing, etc.) within the project site, the habitat present is only marginally suitable for supporting special-status botanical species. Specifically, low suitability habitat is present for the following species:

- Congdon's tarplant (Centromadia parryi subsp. congdonii), California Rare Plant Rank (CRPR) 1B.1
- Hoover's button-celery (Eryngium aristulatum var. hooveri), CRPR 1B.1
- Adobe sanicle (Sanicula maritima), State Rare / CRPR 1B.1

No special-status botanical species were documented during the survey. Low suitability habitat is present within the drainage and associated wetland habitat on site for Congdon's tarplant, Hoover's button-celery, and adobe sanicle. In addition, a CNDDB occurrence for Congdon's tarplant is recorded in the northeastern corner of the property. Occurrence details indicate that several hundred individuals were observed between Fiero Lane and Aerovista Drive sometime in the 2000's, but the exact location and date of observation are not known (CDFW 2019). If present, Congdon's tarplant and Hoover's button-celery would have been detectable at the time of the July 2019 survey. As such, these species are not expected to occur on site. Though unlikely to occur, adobe sanicle may be present within the ephemeral drainage based on marginally suitable habitat and would not have been detectable at the time of the surveys.

Special-status Wildlife Species

The potential for any special-status wildlife species is considered low due to the disturbed nature of existing habitat within the project area, and the lack of continuity with areas of adjacent suitable habitat. Additionally, the lack of perennial or intermittent water reduces the suitability for aquatic-related species. Special-status wildlife species determined to have a very low potential to occur on site include:

- Vernal pool fairy shrimp (Branchinecta lynchi), Federal Threatened
- California red-legged frog (Rana draytonii), Federal Threatened, State Species of Special Concern (CSC)

No special-status species were documented during the survey. Very low suitability habitat is present within the drainage for California red-legged frog (CRLF) and vernal pool fairy shrimp (VPFS). CRLF may temporarily occupy the drainage when water is present; however, the drainage does not provide suitable breeding habitat due to how shallow it is and its flashy and ephemeral



nature. In addition, the hydroperiod for ponded water within the drainage is not expected to support a breeding population of VPFS.

The nearest documented occurrence of CRLF is from 2006 and is over two miles from the project site with many barriers between that occurrence and this site. Lastly, surrounding projects that have assessed the potential for CRLF have found only bullfrogs present, including protocol-level CRLF surveys at the nearby Tank Farm remediation site. While presence of bullfrogs doesn't preclude CRLF, it reduces the likelihood that they will occur or persist. As such, it is unlikely that CRLF would be encountered at the project site.

Migratory Nesting Birds

Suitable habitat for nesting birds and raptors is present within the project area, particularly in the trees in the northwest corner of the survey area.

Discussion of Impacts

The proposed project has been designed to avoid sensitive resources to the extent feasible. Specifically, the project was originally designed with Drainage 1 conveyed through a closed pipe beneath the proposed development. However, an alternative approach was selected which includes re-routing Drainage 1 around proposed development while avoiding intact wetland vegetation. As proposed, the re-routed channel will be restored with native vegetation. As a part of mitigation efforts, temporary impacts are proposed to portions of Drainage 1 and 2 to recontour and/or enhance these features. The combination of proposed restoration and enhancement efforts are expected to result in approximately 0.08 acre and 0.20 acre of permanent and temporary impacts to jurisdictional waters, respectively. A conceptual view of the proposed re-routing and enhancement (mitigation) can be found in Attachment D – Conceptual Mitigation Map. It should be noted that up to 0.08 acre of area immediately adjacent to Drainage 1 and Drainage 2 has been identified as potential additional enhancement areas, as needed.

No special-status botanical or wildlife species were observed during the surveys. However, proposed impacts to Drainage 1 and Drainage 2 may impact adobe sanicle if present. As such, appropriately timed surveys (i.e., April – May) would be necessary prior to the start of work to confirm presence or absence of adobe sanicle.

Low suitability habitat is present within the drainage for CRLF and VPFS. The drainage is not expected to support suitable breeding habitat for either species, though CRLF may temporarily occupy the habitat when water is present.

Suitable habitat for nesting birds and raptors is present within the project site and they may be affected if activities occur during the typical avian nesting season (i.e., February 1 – September 15).



Recommended Measures

Based on the survey results described above, the following measures are recommended to ensure avoidance of sensitive resources occurring or having a potential to occur on the project site).

- 1. In order to prevent oils or fuels from entering the drainages, equipment staging areas for vehicle fueling and storage shall be at least 50 feet away from drainages, in a location where fluids or accidental discharges cannot flow into the drainage.
- 2. Any soil stockpile(s) shall be kept a minimum of 50 feet from the top of bank of drainages to prevent material from entering the waterways. At no time shall any stockpiles, waste piles, or debris associated with this project be located within the banks of the drainages where it can be washed into jurisdictional waters.
- 3. Construction best management practices (BMPs) such as silt fencing and wattles shall be on site prior to the start of project activities and kept on site at all times so they are immediately available for installation in anticipation of rain events.
- 4. Erosion and sediment control measures and other BMPs shall be implemented and maintained in accordance with all manufacturer's specifications detailing the installation, operation, and maintenance of the BMPs.
- 5. If any ground disturbances will occur during the nesting bird season (February 1—September 15), prior to any ground disturbing activity, surveys for active nests shall be conducted by a qualified biologist within one week prior to the start of activities. If nesting birds are located on or near the proposed project site, they shall be avoided until they have successfully fledged or the nest is no longer deemed active. A non-disturbance buffer of 50 feet will be placed around non-listed, passerine species, and a 250-foot buffer will be implemented for raptor species. All activity will remain outside of that buffer until a qualified biologist has determined that the young have fledged or that proposed construction activities would not cause adverse impacts to the nest, adults, eggs, or young. If special-status avian species are identified, no work will begin until an appropriate buffer is determined in consultation with the City and the California Department of Fish and Wildlife and/or the U.S. Fish and Wildlife Service.



Should you have any questions regarding any of the information provided, please contact me at knelson@terraverdeweb.com or (702) 596-5038.

Sincerely,

Kristen Nelson

Botanist

Attachment A – Figures

Figure 1: Project Location and Survey Area Map

Figure 2: Hydrologic Resources Map

Figure 3: 2-mile CNDDB Map

Attachment B – List of Botanical and Wildlife Species Observed

Attachment C – Representative Site Photographs

Attachment D – Conceptual Mitigation Map



REFERENCES

- Althouse and Meade. 2013. Volney Enterprises' Aerovista Commercial at Aerovista Place. Survey Memorandum to City of San Luis Obispo, Robert Hill. September 5, 2013.
- Baldwin, Bruce G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken. 2012. *The Jepson Manual: Vascular Plants of California*, Second Edition. University of California Press. Berkeley, California.
- California Department of Fish and Wildlife. 2019. California Natural Diversity Database: RareFind 5 Database and GIS spatial data download. Accessible with subscription at: http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed January 2020.
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- Google Earth Pro V 7.1.8.3036. 1998-2019. San Luis Obispo County, California. 35.243064, 120.641131. DigitalGlobe. Accessed July 2019-January 2020.
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- Storrer Environmental Services. 2019. Wetland Delineation and Jurisdictional Determination Report for 862 Aerovista Place (APN 053-412-015), San Luis Obispo, California. Consultant Report, August 2019.
- United States Fish and Wildlife Service. 2019a. USFWS Threatened and Endangered Species Active Critical Habitat Portal. Available online at: http://crithab.fws.gov/ecp/report/table/critical-habitat.html. Accessed January 2020.
- -----2019b. National Wetland Inventory Mapper. Available online at: https://www.fws.gov/wetlands/Data/Mapper.html. Accessed July 2019-January 2020.



ATTACHMENT A – Figures

Figure 1: Project Location and Survey Area Map

Figure 2: Hydrologic Resources Map

Figure 3: 2-mile CNDDB Map







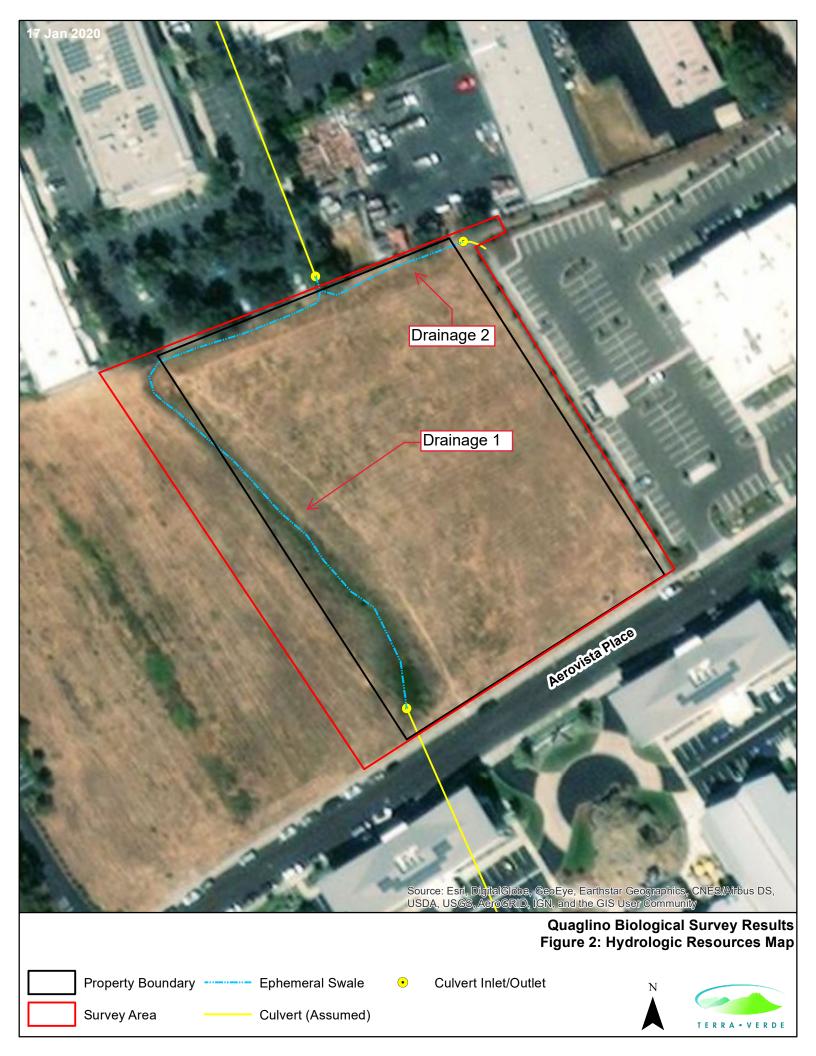
Site Location

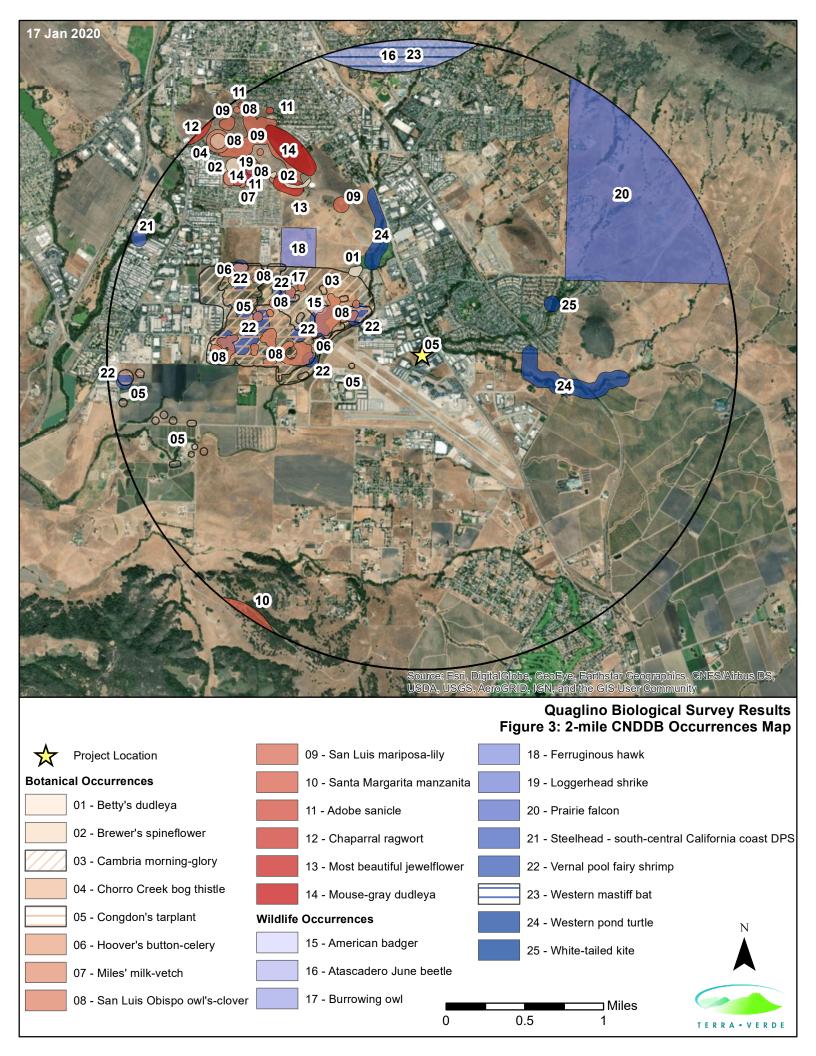


Figure 1: Project Location and Survey Area Map













ATTACHMENT B – List of Botanical and Wildlife Species Observed





List of Botanical Species Observed at the Aerovista Place Project Site

Observed by Terra Verde on July 18, 2019 and January 06, 2020

Family	Scientific Name	Common Name	Status ¹	Origin
Agavaceae, Century Plant Family	Agave americana	American century plant		Naturalized (Ornamental)
Amaranthaceae, Amaranth Family	Amaranthus albus	Tumbleweed		Naturalized
Apiaceae,	Conium maculatum	Poison hemlock	FACW	Naturalized
Carrot Family	Foeniculum vulgare	Fennel		Naturalized
Apocynaceae, Dogbane Family	Asclepias fascicularis	Narrow-leaf milkweed	FAC	Native
Arecaceae, Palm Family	Washingtonia robusta	Mexican fan palm		Naturalized (Ornamental)
Asteraceae,	Baccharis pilularis	Coyote brush		Native
Sunflower Family	Erigeron bonariensis	Flax-leaved horseweed		Naturalized
	Helminthotheca echioides	Bristly ox-tongue	FAC	Naturalized
	Lactuca serriola	Prickly lettuce		Naturalized
	Pseudognaphalium californicum	Ladies' tobacco		Native
	Sonchus asper	Prickly sow thistle	FAC	Naturalized
	Sonchus oleraceus	Common sow thistle		Naturalized
	Tragopogon porrifolius	Salsify		Naturalized
Brassicaceae,	Brassica nigra	Black mustard		Naturalized
Mustard Family	Hirschfeldia incana	Mediterranean hoary mustard		Naturalized
	Raphanus sativus	Radish		Naturalized
	Sinapis arvensis	Charlock		Naturalized
Convolvulaceae, Morning-glory Family	Convolvulus arvensis	Bindweed		Naturalized
Cyperaceae,	Cyperus eragrostis	Tall cyperus	FACW	Native
Sedge Family	Eleocharis macrostachya	Spike rush	OBL	Native
Fabaceae,	Lotus corniculatus	Bird's-foot trefoil	FAC	Naturalized
Legume Family	Lupinus succulentus	Arroyo lupine		Native
	Medicago polymorpha	California burclover		Naturalized
	Vicia villosa	Hairy vetch		Naturalized



Family	Scientific Name	Common Name	Status ¹	Origin
Geraniaceae,	Erodium botrys	Big heron bill		Naturalized
Geranium Family	Erodium cicutarium	Redstem filaree		Naturalized
	Geranium molle	Crane's bill geranium		Naturalized
Juncaceae,	Juncus patens	Spreading rush	FACW	Native
Rush Family	Juncus phaeocephalus	Brown headed rush	FACW	Native
Lythraceae, Loosestrife Family	Lythrum hyssopifolia	Hyssop loosestrife	OBL	Naturalized
Malvaceae,	Malva parviflora	Cheeseweed		Naturalized
Mallow Family	Malvella leprosa	Alkali-mallow		Native
Myrsinaceae, Myrsine Family	Lysimachia arvensis	Scarlet pimpernel	FAC	Naturalized
Myrtaceae, Myrtle Family	Eucalyptus camaldulensis	River red gum		Naturalized (Ornamental)
Onagraceae,	Epilobium brachycarpum	Willow herb		Native
Evening-primrose Family	Epilobium ciliatum	Slender willow herb	FACW	Native
Poaceae,	Agrostis capillaris	Colonial bent	FAC	Naturalized
Grass Family	Avena barbata	Slender wild oat		Naturalized
	Avena fatua	Wild oat		Naturalized
	Briza minor	Annual quaking grass	FAC	Naturalized
	Bromus catharticus	Rescue grass		Naturalized
	Bromus diandrus	Ripgut brome		Naturalized
	Bromus hordeaceus	Soft chess		Naturalized
	Festuca perennis	Rye grass	FAC	Naturalized
	Phalaris aquatica	Harding grass		Naturalized
	Polypogon monspeliensis	Annual beard grass	FACW	Naturalized
	Stipa miliacea	Smilo grass		Naturalized
Polygonaceae,	Polygonum aviculare	Knotweed	FAC	Naturalized
Buckwheat Family	Rumex crispus	Curly dock	FAC	Naturalized
Salicaceae, Willow Family	Salix lasiolepis	Arroyo willow	FACW	Native
Typhaceae, Cattail Family	Typha latifolia	Broad-leaved cattail	OBL	Native



¹Listing Status: Indicates listing status for taxa that are included on the National Wetland Plant List (NWPL) for the Arid West region (USFWS 2016), which are assigned one of the following wetland indicator statuses; species with a wetland indicator status of OBL, FACW, or FAC are indicated in the list above:

- Obligate (OBL): plants that almost always occur in wetlands.
- Facultative Wetland (FACW): plants that usually occur in wetlands, but may occur in non-wetlands.
- Facultative (FAC): plants that are equally likely to occur in wetlands and non-wetlands.
- Facultative Upland (FACU): plants that usually occur in non-wetlands, but may occur in wetlands.
- Upland: plants that almost never occur in wetlands.



862 Aerovista Place Project

List of Wildlife Species Observed on January 06, 2020

Family	Scientific Name	Common Name	*Listing Status Federal/State
Birds	Buteo jamaicensis	Red-tailed hawk	
	Calypte anna	Anna's hummingbird	
	Carpodacus mexicanus	House finch	
	Corvus brachyrhynchos	American crow	
	Melozone crissalis	California towhee	
	Sayornis nigricans	Black phoebe	
	Setophaga coronata	Yellow-rumped warbler	
	Sialia mexicana	Western bluebird	
	Spinus psaltria	Lesser goldfinch	
	Sturnella neglecta	Western meadowlark	
	Zonotrichia leucophrys	White-crowned sparrow	
Mammals	Thomomys bottae	Botta's pocket gopher	
Insects	Cornu aspersum	Garden snail	
Amphibian	Pseudacris sierra	Sierra tree frog	

^{*}California Department of Fish and Wildlife Listing Status:

- Fully Protected (FP)
- California Species of Special Concern (CSC)
- Watch List (WL)
- Special Animal (SA)



ATTACHMENT C – Representative Site Photographs







Photo 1. View south across recently mowed ruderal herbaceous vegetation present throughout the upland portion of the site (07-18-19).



Photo 2. View south along western property boundary and ephemeral drainage (01-06-20).





Photo 3. View east along the ephemeral drainage bordering the northern property boundary (01-06-20).



Photo 4. View east along the shallow swale that flows west along the northern property boundary (01-06-20).





Photo 5. View southwest showing ruderal herbaceous vegetation in the upland portion of the site (01-06-20).



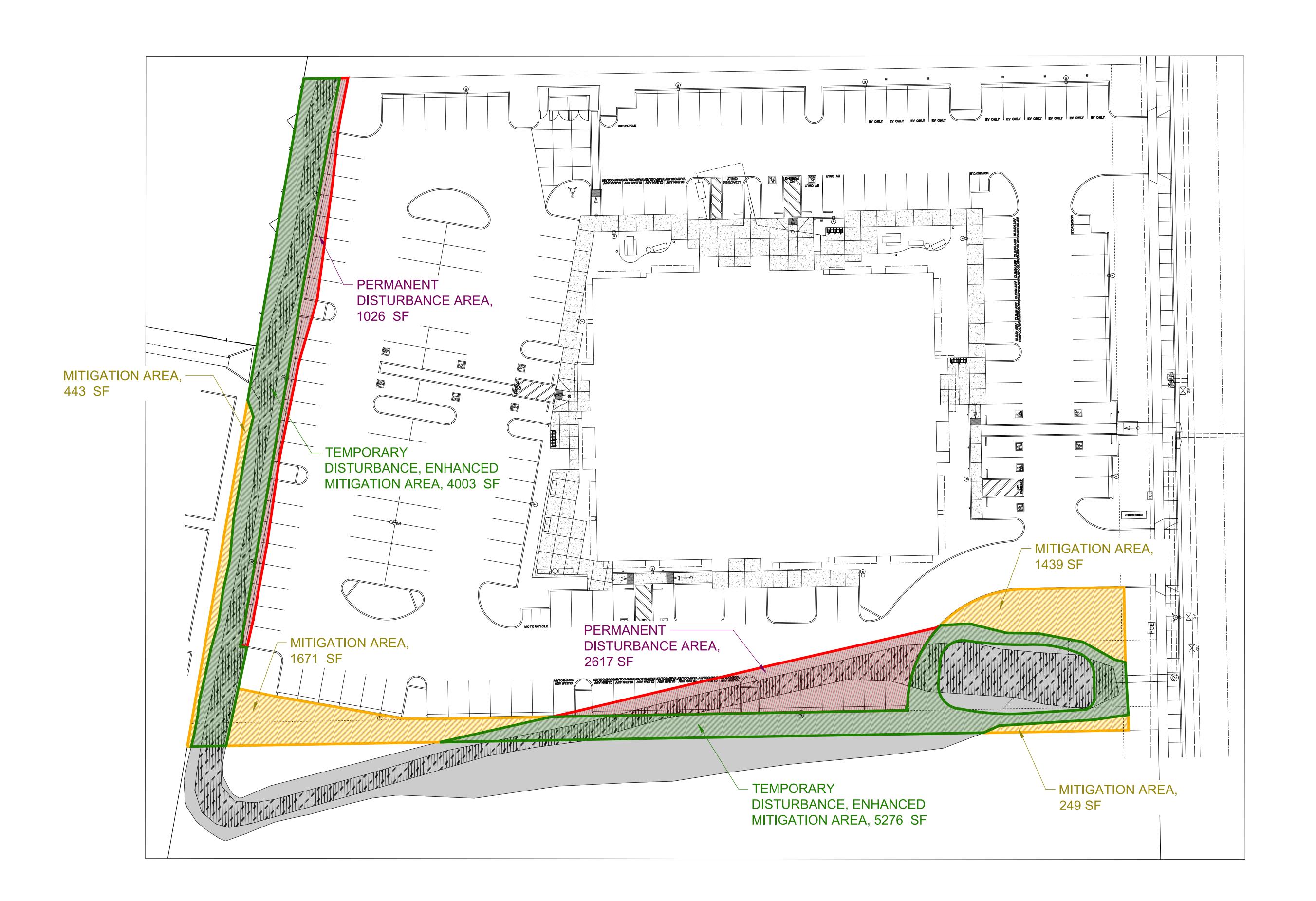
Photo 6. View south along the ephemeral drainage bordering the western property edge (01-06-20).





ATTACHMENT D – Conceptual Mitigation Map







Architecture, Planning & Graphics

3592 Sacramento Dr, Suite 140
San Luis Obispo, California 93401

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