February 06, 2020

Dr. Sanjay Ganpule
325 Posada Lane
Templeton, CA 93465
Sent via email to Pam Jardini: planningsolutions@charter.net

RE: Biological Constraints Memorandum for a Proposed Project at 950 and 990 Aero Drive, San Luis Obispo, California

Dear Dr. Ganpule,

Terra Verde Environmental Consulting, LLC (Terra Verde) has prepared this memorandum to document the results of a reconnaissance-level biological resources assessment completed in support of a proposed development at 950 and 990 Aero Drive, San Luis Obispo, California (APN 053-412-010 and 053-412-011) (see Attachment A – Figure 1: Project Location and Survey Area Map). The proposed development includes two hotels and associated infrastructure and surface parking on an approximately five-acre lot. 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, 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 immediately northwest of the San Luis Obispo County Regional Airport (Airport) at the corner of Broad Street (Highway 227) and Aero Drive in the City of San Luis Obispo, California. A majority of the survey area supports ruderal herbaceous vegetation with a cluster of non-native trees on the western edge of the survey area. The topography, soils and vegetation of the proposed project site and surrounding areas have been altered considerably through past land conversion, construction of the adjacent commercial developments, expansion of the Airport, and realignment of Aero Drive. A review of aerial imagery indicates that the property has been regularly mowed since the early 2000s (Google Earth 1994-2019). Topography on site is gently sloped toward a drainage that borders the southwestern edge of the survey area. Elevations on site range from approximately 157 to 173

feet (48 to 52 meters). Surrounding land uses include the Airport and associated infrastructure, commercial building parks, industrial businesses, rural and suburban residential areas and agriculture (e.g., vineyards).

The unnamed drainage bordering the site flows generally northwest across the southwestern edge of the survey area (see Attachment A – Figure 2: Survey Results Map). The drainage enters the survey area through a culvert under Aero Drive and flows west along the edge of the survey area before making a 90-degree bend and continuing north-northwest for approximately 400 feet, where it flows into a 36-inch culvert in the northwest corner of the survey area. This drainage is ephemeral, conveying surface flows from the subject parcel and adjacent developments during periods of significant rainfall.

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 1998 – 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 special-status 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 5-mile radius of the project site (CDFW 2019)
- 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)
- David Wolff Environmental (DWE) San Luis Obispo County Airport Rental Car Facility Wetland Delineation & Jurisdictional Determination Report (DWE 2008a)
- DWE San Luis Obispo County Airport Rental Car Facility 90-day Comprehensive Wet and Dry Season Vernal Pool Branchiopod Survey Report (DWE 2008b)

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 biologist Sara Snyder conducted a wetlands and waters delineation on October 03 (Terra Verde 2019) and a reconnaissance-level field survey of the entire project site on November 11, 2019. The survey area included the entire parcel and a visual scan of adjacent parcels (see Attachment A – Figure 1). During the survey, all botanical and

wildlife species encountered via direct and indirect (e.g., scat, track, call) observation were recorded (see Attachment B – List of Botanical and Wildlife Species Observed). It is important to note that the survey was conducted outside the appropriate blooming period for the identification of most special-status botanical species with the potential to occur on site. 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). In addition, the field survey included a focused habitat assessment for vernal pool fairy shrimp (*Branchinecta lynchi*).

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. In addition to these resources, jurisdictional aquatic habitat was observed within the survey, including patches of in-channel wetland habitat that temporarily flood following rain events (see Attachment A – Figure 2). A detailed discussion of these resources is included below.

Special-status Botanical Species

Due to the high degree of land manipulation (e.g., placed fill, regular mowing etc.) within the project site, most of the site does not provide suitable habitat for special-status species. However, habitat within the jurisdictional drainage provides marginally suitable for special-status botanical species. As such, it was determined that low suitability habitat is present within the drainage and associated wetland habitat 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*), 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. If present, Congdon's tarplant would have been detectable at the time of the surveys completed by Terra Verde. As such, this species is not expected to occur on site. Though considered unlikely to occur due to degraded site conditions, Hoover's button-celery and adobe sanicle may be present within the ephemeral drainage and associated wetland habitat, and would not have been detectable at the time of the surveys. If impacts are proposed to the drainage, appropriately timed surveys (i.e., April – May, and July) would be necessary prior to the start of work to confirm presence or absence of these species.

Special-status Wildlife Species

The potential for any special-status wildlife species to occur is considered low due to the disturbed nature of existing habitat within the project area, annual disturbance associated with ongoing site maintenance activities, and the lack of continuity with areas of adjacent suitable habitat. Special-status wildlife species determined to have 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. Low suitability habitat is present within the drainage and associated wetland habitat for California red-legged frog (CRLF). However, the nearest documented occurrence of CRLF is from 2006 approximately two miles from the project site. Further, the drainage does not provide suitable breeding habitat due to its flashy and ephemeral nature and lack of protective cover (e.g., willows, cattails, etc.), nor does it maintain contiguous natural connection to downstream aquatic habitat features, including the East Fork of San Luis Obispo Creek (i.e., isolated by surrounding development). Therefore, the likelihood of CRLF occurrence on site is considered low.

In addition to the surveys completed by Terra Verde in 2019, wet and dry season protocol surveys were conducted for VPFS by David Wolff Environmental in 2007 (DWE 2008b). No VPFS were observed during the protocol wet season surveys. Two intact cysts and one broken cyst identified to the genus *Branchinecta* were documented by Dr. Marie A. Simovich in the soil samples collect for the protocol dry season surveys. It was Dr. Simovich's opinion that habitat with viable populations of fairy shrimp contain cysts in much higher densities than that found in the samples from this drainage (DWE 2008b). In addition, the hydroperiod for ponded water within the drainage, based on current site conditions, is not expected to support a breeding population of VPFS. Based on the results of the 2007 protocol-level survey coupled with the 2019 assessment of current site conditions, the likelihood of VPFS occurrence on site is considered low.

In addition, suitable habitat for nesting birds and raptors is present within the project area, particularly within the ornamental trees located in the northwest corner of the survey area. Migratory and special-status bird species are protected under the Migratory Bird Treaty Act and California Fish and Game Code.

Hydrological Resources

As described above, one ephemeral drainage crosses the southwest corner of the project site and continues onto the adjacent parcel, flowing northwest along the southwestern property boundary. At the time of the November 11 survey, ponded water was observed in a scoured pool immediately downstream of the Aero Drive culvert, which appeared to be runoff from landscape irrigation in the parking lot south of Aero Drive. The limits of federal and state jurisdiction associated with the drainage were assessed and mapped by Terra Verde during a waters and wetlands delineation on October 03, 2019 (Terra Verde 2019). Based on the presence of a defined bed and bank, including evidence of an ordinary high water mark (OHWM), it was determined

that the drainage likely falls under the jurisdiction of CDFW and the Regional Water Quality Control Board (RWQCB) as waters of the state, and the U.S. Army Corps of Engineers (Corps) as waters of the U.S. In addition, three in-stream, federal-defined wetlands were delineated in association with the subject drainage feature. Refer to the Waters and Wetlands Delineation Report for further details on the methods and findings of this effort (Terra Verde 2019).

Recommendations

The proposed project has been designed to avoid impacts to sensitive biological resources to the extent possible. Specifically, the development has been designed to avoid any direct impacts to areas of jurisdictional aquatic habitat and maintain a 35-foot setback from the outer limits of mapped jurisdiction associated with the drainage.

The following measures are recommended to protect aquatic resources on site and minimize impacts to sensitive biological resources during and following construction:

Measure 1: Protection of Hydrological Resources

- The limits of all work areas shall be clearly delineated in the field during construction, and personnel informed of the need to avoid impacts to jurisdictional aquatic features (i.e., waters and wetlands).
- For short-term, temporary stabilization, an erosion and sedimentation control plan shall be developed outlining Best Management Practices (BMPs), which shall be implemented to prevent erosion and sedimentation into the channel during construction. Acceptable stabilization methods include the use of weed-free, natural fiber (i.e., non-monofilament) fiber rolls, jute or coir netting, and/or other industry standards. BMPs shall be installed and maintained for the duration of the construction period.
- The mapped limits jurisdictional areas shall be clearly shown on all sites plans and flagged prior to the start of any construction activity within 50 feet of the limits of the drainage.
- All equipment and materials shall be stored a minimum of 35 feet from the edge of the drainage at the end of each working day, and secondary containment shall be used to prevent leaks and spills of potential contaminants from entering the drainage.
- During construction, washing of concrete, paint, or equipment and refueling and maintenance of equipment shall occur only in designated areas a minimum of 35 feet from all drainages and aquatic features. Sandbags and/or sorbent pads shall be available to prevent any fluid releases from entering the drainage.
- Construction equipment shall be inspected by the operator on a daily basis to ensure that equipment is in good working order and no fuel or lubricant leaks are present.
- Incorporate low impact development (LID) features, including bioswales and permeable pavers, into the overall site design to retain runoff on site and avoid increased surface runoff into the drainage.
- Where feasible, establish vegetated buffers, bioswales, and/or rain gardens on the creek-side of the development.

- Avoid the use of landscaping plants that are known or have potential to become invasive.

Measure 3: Pre-construction Surveys for Nesting Birds

If work is planned to occur between February 1 and September 15, a qualified biologist shall survey the area for nesting birds within one week prior to activity beginning on site. 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 CDFW, and/or the USFWS.

Conclusion

Current development plans have been modified to avoid direct impacts to the drainage. Sensitive biological resources identified within the survey area include one jurisdictional drainage with three associated in-channel wetlands. Low suitability habitat is present within the drainage for California red-legged frog, Hoover's button-celery, and adobe sanicle. Suitable habitat for nesting birds and raptors is present within the project site.

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

Sincerely,

Kristen Nelson
Botanist

Sara Snyder
Wildlife Biologist

Attachment A – Figures
Figure 1: Project Location and Survey Area Map
Figure 2: Survey Results Map
Attachment B – List of Botanical and Wildlife Species Observed
Attachment C – Representative Site Photographs

REFERENCES

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 November 2019.

California Native Plant Society, Rare Plant Program. 2019. Online Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Available Online at: http://www.rareplants.cnps.org/. Accessed November 2019.

Consortium of California Herbaria. 2019. Regents of the University of California. Available online at: http://ucjeps.berkeley.edu/consortium/. Accessed November 2019.

David Wolff Environmental (DWE). 2008a. San Luis Obispo County Airport Rental Car Facility Wetland Delineation & Jurisdictional Determination Report. Prepared for San Luis Obispo County Airport.

----------2008b. San Luis Obispo County Airport Rental Car Facility 90-day Comprehensive Wet and Dry Season Vernal Pool Branchiopod Survey Report. Prepared for San Luis Obispo County Airport.

Google Earth Pro V 7.1.8.3036. 1998-2019. San Luis Obispo County, California. 35.241220, -120.639658. DigitalGlobe. Accessed October 2019.

Jepson eFlora, Jepson Flora Project (eds.). 2019. Regents of the University of California. Available online at: http://ucjeps.berkeley.edu/eflora/. Accessed November 2019.

National Geologic Map Database. 2019. TopoView Map Viewer. 35.2421, -120.6437. Available at: https://ngmdb.usgs.gov/topoview/viewer/#15/35.2421/-120.6437.

Natural Resources Conservation Service (NRCS)/U.S. Department of Agriculture (USDA). 2019. Available Online at: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed November 2019.

Terra Verde Environmental Consulting, LLC (Terra Verde). 2019. Waters and Wetlands Delineation Report Aero Drive Hotel Project. Prepared for Planning Solutions.

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 November 2019.

----------2019b. National Wetland Inventory Mapper. Available online at: https://www.fws.gov/wetlands/Data/Mapper.html. Accessed November 2019.

TERRA • VERDE
Environmental Consulting

This page intentionally left blank.

TERRA • VERDE
Environmental Consulting

ATTACHMENT A – Figures

Figure 1: Project Location and Survey Area Map

Figure 2: Survey Results Map

TERRA • VERDE
Environmental Consulting

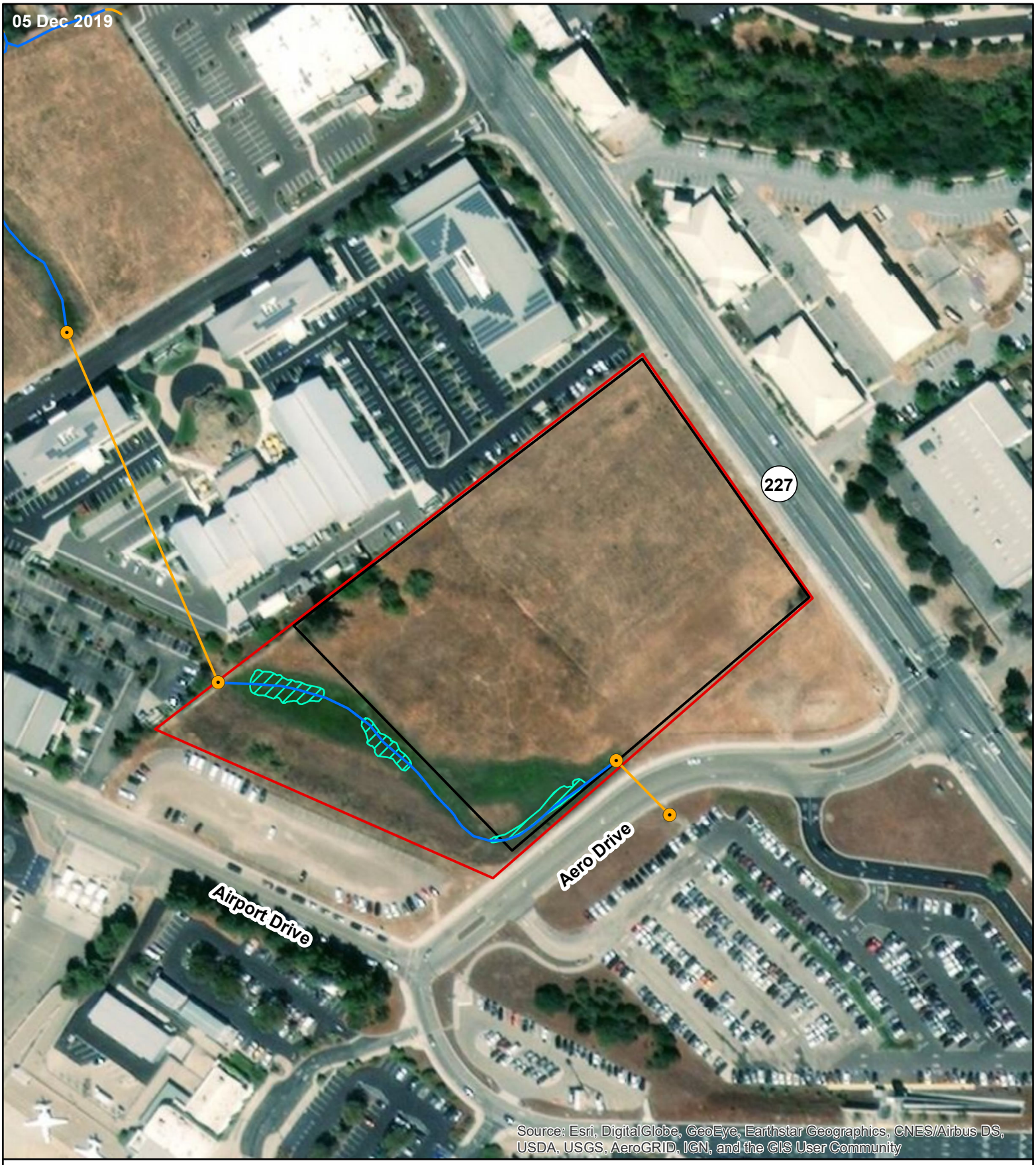
This page intentionally left blank.

Site Location Survey Area

Aero Drive Hotel
Bioconstraints Assessment Report
Figure 1: Project Location and Survey Area Map

N

TERRA • VERDE



Approximate Project Site

Survey Area

Culverts

Assumed Culvert Path

Ephemeral Swale

Wetland (Juris. Boundary)

0 125 250 500 Feet

N

Aero Drive Hotel
Bioconstraints Assessment Report
Figure 2: Survey Results Map

TERRA • VERDE

TERRA • VERDE
Environmental Consulting

ATTACHMENT B – List of Botanical and Wildlife Species Observed

TERRA • VERDE
Environmental Consulting

This page intentionally left blank.

Aero Drive Hotel Project

List of Botanical Species Observed on October 03 and November 11, 2019

Family	Scientific Name	Common Name	Status[1]	Origin
Amaranthaceae, Amaranth Family	*Amaranthus albus*	Tumbleweed	--	Naturalized
Anacardiaceae, Sumac Family	*Schinus molle*	Pepper tree	--	Naturalized
Apiaceae, Carrot Family	*Conium maculatum*	Poison hemlock	FACW	Naturalized
	Foeniculum vulgare	Fennel	--	Naturalized
Asteraceae, Sunflower Family	*Baccharis pilularis*	Coyote brush	--	Native
	Carduus pycnocephalus subsp. *pycnocephalus*	Italian thistle	--	Naturalized
	Centaurea solstitialis	Yellow star-thistle	--	Naturalized
	Cichorium intybus	Chicory	--	Naturalized
	Erigeron canadensis	Horseweed	--	Native
	Helminthotheca echioides	Bristly ox-tongue	FAC	Naturalized
	Hemizonia congesta subsp. *luzulifolia*	Woodrush tarweed	--	Native
	Lactuca serriola	Prickly lettuce	--	Naturalized
	Silybum marianum	Milk thistle	--	Naturalized
	Sonchus asper	Prickly sow thistle	FAC	Naturalized
	Sonchus oleraceus	Common sow thistle	--	Naturalized
Brassicaceae, Mustard Family	*Brassica nigra*	Black mustard	--	Naturalized
	Hirschfeldia incana	Mediterranean hoary mustard	--	Naturalized
	Raphanus sativus	Radish	--	Naturalized
Convolvulaceae, Morning-glory Family	*Convolvulus arvensis*	Bindweed	--	Naturalized
Cyperaceae, Sedge Family	*Cyperus eragrostis*	Tall cyperus	FACW	Native
	Eleocharis cf[2] *macrostachya*	Spike rush	OBL	Native
	Schoenoplectus americanus	Olney's three-square bulrush	OBL	Native
Euphorbiaceae, Spurge Family	*Croton setiger*	Doveweed		Native
	Ricinus communis	Castor bean	--	Naturalized
Fabaceae, Legume Family	*Acacia* sp.	Wattle	--	Ornamental
	Lotus corniculatus	Bird's-foot trefoil	FAC	Naturalized
	Medicago polymorpha	California burclover	--	Naturalized
	Trifolium hirtum	Rose clover	--	Naturalized
	Vicia villosa	Hairy vetch	--	Naturalized
Geraniaceae, Geranium Family	*Erodium cicutarium*	Redstem filaree	--	Naturalized

Family	Scientific Name	Common Name	Status[1]	Origin
Juncaceae, Rush Family	*Juncus phaeocephalus*	Brown headed rush	FACW	Native
Lamiaceae, Mint Family	*Marrubium vulgare*	White horehound	--	Naturalized
Lythraceae, Loosestrife Family	*Lythrum hyssopifolia*	Hyssop loosestrife	OBL	Naturalized
Malvaceae, Mallow Family	*Malva parviflora*	Cheeseweed	--	Naturalized
Myrsinaceae, Myrsine Family	*Lysimachia arvensis*	Scarlet pimpernel	FAC	Naturalized
Myrtaceae, Myrtle Family	*Eucalyptus globulus*	Blue gum	--	Naturalized (Ornamental)
Onagraceae, Evening-primrose Family	*Epilobium brachycarpum*	Willow herb	--	Native
	Epilobium ciliatum	Slender willow herb	FACW	Native
Plantaginaceae, Plantain Family	*Plantago coronpus*	Cut leaf plantain	FAC	Naturalized
	Plantago lanceolata	English plantain	FAC	Naturalized
Poaceae, Grass Family	*Avena barbata*	Slender wild oat	--	Naturalized
	Bromus catharticus	Rescue grass	--	Naturalized
	Bromus diandrus	Ripgut brome	--	Naturalized
	Bromus rubens	Red brome	--	Naturalized
	Cynodon dactylon	Bermuda grass	--	Naturalized
	Distichlis spicata	Salt grass	FAC	Native
	Elymus caput-medusae	Medusa head	--	Naturalized
	Festuca perennis	Rye grass	FAC	Naturalized
	Gastridium phleoides	Nit grass	--	Naturalized
	Hordeum marinum subsp. *gussoneanum*	Mediterranean barley	FAC	Naturalized
	Polypogon monspeliensis	Annual beard grass	FACW	Naturalized
	Stipa miliacea	Smilo grass	--	Naturalized
	Stipa pulchra	Purple needle grass	--	Native
Polygonaceae, Buckwheat Family	*Rumex crispus*	Curly dock	FAC	Naturalized

[1]**Listing Status**: Indicates taxa that are included on the National Wetland Plant List for the Arid West region (USFWS 2016), which are assigned one of the following wetland indicator statuses; species with an indicator status of OBL, FACW, or FAC are noted 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.

[2]**cf (=conforms to):** indicates provisional species determination based on the observed pheno-phase, but in the absence of diagnostic features (e.g., desiccated or undeveloped reproductive structures).

Aero Drive Hotel Project

List of Wildlife Species Observed on October 03 and November 11, 2019

Family	Scientific Name	Common Name	Status / Origin
Birds	*Buteo jamaicensis*	Red-tailed hawk	--
	Carpodacus mexicanus	House finch	--
	Cathartes aura	Turkey vulture	--
	Charadrius vociferus	Killdeer	--
	Corvus brachyrhynchos	American crow	--
	Mimus polyglottos	Northern Mockingbird	--
	Sayornis nigricans	Black phoebe	--
	Streptopelia decaocto	Eurasian collared dove	--
	Sturnus vulgaris	European starling	Non-native
	Zenaida macroura	Mourning dove	--
Mammals	*Thomomys bottae*	Botta's pocket gopher	--
Insects	*Notonecta* sp.	Backswimmer	--

TERRA • VERDE
Environmental Consulting

This page intentionally left blank.

TERRA • VERDE
Environmental Consulting

ATTACHMENT C – Representative Site Photographs

TERRA • VERDE
Environmental Consulting

This page intentionally left blank.

Photo 1. Looking northwest across the eastern edge of the survey area at the disturbed annual grassland (11-11-19).

Photo 2. Looking west across the disturbed annual grassland toward the drainage along the western edge of the survey area (11-11-19).

Photo 3. Looking west at patch of trees in the northwest corner of the survey area (11-11-19).

Photo 4. Looking east at the upstream portion of the drainage where it enters the survey area through a culvert under Aero Drive (11-11-19).

Photo 5. Looking north at the downstream end of the drainage (11-11-19).

Photo 6. The culvert under Aero Drive where the drainage enters the survey area. There was water ponded at the outlet. Water appears to be from irrigation of the bioswale plantings in the parking lot south of Aero Drive (9-30-19).

Photo 7. Culvert in the northwest corner of the survey area where the drainage discharges from the site (11-11-19).

Photo 8. View west across the drainage at the northwest corner of the site (11-11-19).