Appendix D:
Biological Resources Supporting Information

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D.1 - LSA, Inc., Biological Memorandum

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LSA

CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: June 27, 2018

TO: Mandy Leung and Scott Hilk

FROM: Ross A. Dobberteen, Ph.D.

SUBJECT: Review of Current Biological Conditions in the Alves Ranch Project Area with Respect to 2004 DEIR Mitigation Measures, Vista Del Mar in Pittsburg, Contra Costa County, California

Per your request, LSA, Inc. (LSA) presents this memo regarding our review of current site conditions at the Alves Ranch Project Site south of West Leland Road near the Vista Del Mar residential development in Pittsburg, California. The purpose of our assessment was to determine if any new potential biological features were present on the site that were not originally addressed in the 2004 Draft Environmental Impact Report (DEIR) and associated mitigation measures. This memo is based on our on-going discussions about the proposed Alves Ranch Project, as well as LSA's prior work on the property on a continuous basis since 2002.

Methods:

Prior to conducting the site visit, all of the project files were reviewed related to the Vista Del Mar development project, which included lands south of West Leland Road where the proposed Alves Ranch Project will be built. Specifically, permits were obtained to grade the Alves Ranch Project area and construct a water quality detention basin in 2004-2005. The California Natural Diversity Database (CNDDB) was also reviewed for records of any special-status species occurrences in the project vicinity since LSA's original biological assessment in 2002. Finally, aerial imagery from Google Earth was examined to look for any signs of ponding on the site since the project area was graded.

On June 12, 2018, I conducted a site visit that involved walking transects (approximately 100 feet apart) across the level portion of the project area to search for any new biological resources, such as wetlands or habitats for special-status species. I also walked down to the bottom of the water quality detention basin via maintenance roads to inspect the conditions and outfall structures.

Results:

Presented below is a summary of my observations during the site visit:

- Other than the constructed water quality detention basin adjacent to Highway 4, a majority of the site was level as a result of the grading activities in 2004-2005.

- The property has been maintained since the grading activities in 2004-2005. The level portions of the site had been recently disced and appeared to have been planted with wild oats, which is the dominate vegetation type on most of the site. There are a few coyote brush shrubs scattered throughout the site.

- The level portions of the site had several constructed drainage ditches that went to drop inlets as part of the water quality detention basin system that was constructed in 2004-2005; the ditches were dry and were dominated by upland vegetation.

- Based on the Corps of Engineers approved wetland delineation from 2001, the Alves Ranch Project area had a single ephemeral drainage approximately 200 feet long in the center of the site. The feature, which was filled in 2004-2005, was not observed during the course of the 2018 site visit. All of the permit conditions associated with the authorization to fill the ephemeral drainage have been satisfied.

- The bottom of the water quality detention basin is dominated by cattails (*Typha* sp.) and non-native common reed (*Phragmites australis*). At the time of the site visit, the bottom of the basin was dry and no standing water was observed.

- The water quality detention basin has been maintained since it was constructed in 2004-2005, consisting of periodic vegetation control and debris removal from the trash racks. As recently as 2012, additional modifications were made to the water control structures and the basin was also re-graded.

Conclusions:

In summary, no new biological resources are present on the proposed Alves Ranch Project site based on my site visit, and nothing about the proposed Project would trigger any new significant impacts or increase the severity of significant impacts previously identified in the 2004 EIR. Therefore, the applicable biological resource mitigation measures in the DEIR, including, without limitation, a pre-construction survey to search for active native bird nests, should be imposed on the construction of the proposed Alves Ranch Project, which would ensure that all identified biological resource impacts are adequately mitigated.

Please do not hesitate to contact me if you have questions and/or require further information regarding this assessment.

D.2 - Special-Status Species Tables

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Table 1: Special-status Plant Species Potentially Occurring within the Project

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
alkali milk-vetch *Astragalus tener* var. *tener*	—	—	1B.2	Alkali playa, valley and foothill grassland. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 0–168 m.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Lack of vernal pools and alkali soil on-site.	No
Antioch Dunes evening-primrose *Oenothera deltoides* ssp. *howellii*	FE	SE	1B.2	Interior dunes. Remnant river bluffs and sand dunes east of Antioch. 1–15 m.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Lack of sand dunes on-site.	No
big tarplant *Blepharizonia plumosa*	—	—	1B.1	Valley and foothill grassland. Dry hills & plains in annual grassland. Clay to clay-loam soils; usually on slopes and often in burned areas. 60–505 m.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Water Quality Detention Center, which contains marginal habitat for this species, is actively maintained	No
Bolander's water-hemlock *Cicuta maculata* var. *bolanderi*	—	—	2B.1	Marshes and swamps, fresh or brackish water. Central valley counties and parts of southern California. 0–200 m.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Water Quality Detention Center, which contains marginal habitat for this species, is actively maintained	No
Contra Costa wallflower *Erysimum capitatum* var. *angustatum*	FE	SE	1B.1	Inland dunes. Stabilized dunes of sand and clay near Antioch along the San Joaquin River. 3–20 m.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Lack of sand or clay dunes on-site.	No
Delta mudwort *Limosella australis*	—	—	2B.1	Riparian scrub, marshes and swamps. Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with *Lilaeopsis masonii*. 0–5 m.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Water Quality Detention Center, which contains marginal habitat for this species, is actively maintained	No
Delta tule pea *Lathyrus jepsonii* var. *jepsonii*	—	—	1B.2	Marshes and swamps. In freshwater and brackish marshes. Often found with Typha, *Aster lentus*, *Rosa californica, Juncus* spp., *Scirpus*, etc. Usually on marsh and slough edges. 0–5 m.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence.	No
Mason's lilaeopsis *Lilaeopsis masonii*	—	CR	1B.1	Marshes and swamps, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. In brackish or freshwater. 0–10 m.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Water Quality Detention Center, which contains marginal habitat for this species, is actively maintained	No

Table 1 (cont.): Special-status Plant Species Potentially Occurring within the Project

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
soft salty bird's-beak *Chloropyron molle* ssp. *molle*	FE	CR	1B.2	Coastal salt marsh. In coastal salt marsh with Distichlis, Salicornia, Frankenia, etc. 0–5 m.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Lack of coastal salt marsh on-site.	No
Suisun Marsh aster *Symphyotrichum lentum*	—	—	1B.2	Marshes and swamps (brackish and freshwater). Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. 0–15 m.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Water Quality Detention Center, which contains marginal habitat for this species, is actively maintained	No
Large-flowered fiddleneck *Amsinckia grandiflora*	—	—	1B.2	Cismontane woodland, valley and foothill, annual grassland in various soils. Grows in saturated soil but not required. 275–550 m.	**Unlikely to Occur**: Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Lack of woodland on-site.	No
Colusa Grass *Neostapfia Colusana*	FT	SE	1B.1	Vernal pools. Usually in the bottoms of large, or deep vernal pools; adobe soils. 5–125 m.	**Unlikely to Occur**: Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Lack of vernal pools on-site.	No

Code Designations

[1] Federal Status: 2015 USFWS Listing

- **ESU** = Evolutionary Significant Unit is a distinctive population.
- **FE** = Listed as endangered under the FESA.
- **FT** = Listed as threatened under the FESA.
- **FC** = Candidate for listing (threatened or endangered) under FESA.
- **FD** = Delisted in accordance with the FESA.
- **FPD** = Federally Proposed to be Delisted.
- **MBTA** = protected by the Migratory Bird Treaty Act
- **—** = Not federally listed

[2] State Status: 2015 CDFW Listing

- **SE** = Listed as endangered under the CESA.
- **ST** = Listed as threatened under the CESA.
- **SSC** = Species of Special Concern as identified by the CDFW.
- **FP** = Listed as fully protected under FGC.
- **CFG** = FGC =protected by FGC 3503.5
- **CR** = Rare in California.
- **—** = Not state listed

[3] **Habitat description**: Habitat description adapted from CNDDB (CDFW 2015a).

Table 2: Special-status Wildlife Species Potentially Occurring within the Project

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Reptiles					
giant gartersnake *Thamnophis gigas*	FT	ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches.	**Low Potential to Occur:** while suitable habitat is present on-site, extremely high level of disturbance at and surrounding site preclude presence.	No
western pond turtle *Emys marmorata*	—	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Low Potential to Occur:** while suitable habitat is present on-site, extremely high level of disturbance at and surrounding site preclude presence.	No
Birds					
burrowing owl *Athene cunicularia*	MBTA	SSC	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	**Low Potential to Occur:** Suitable nesting habitat is present within the project site. No indicators of habitat or burrowing owl were found on-site during the field survey.	Yes
California black rail *Laterallus jamaicensis coturniculus*	MBTA	ST FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	**Low Potential to Occur:** there is suitable foraging or nesting habitat within the project site but due to high level of disturbance at site and preferable habitat located in Suisun Bay and Honker Bay, it has low potential to occur on-site.	Yes
California least tern *Sternula antillarum browni*	FE MBTA	SE FP	Nests along the coast from San Francisco Bay south to northern Baja California. A colonial breeder on bare or sparsely vegetated, flat substrates, sand beaches, alkali flats, landfills, or paved areas.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Lack of flat substrates and sand beaches.	No
California Ridgway's rail *Rallus obsoletus obsoletus*	FE	SE	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs	**Low Potential to Occur:** there is suitable foraging or nesting habitat within the project site but due to high level of disturbance at site and preferable habitat located in Suisun Bay and Honker Bay, it has low potential to occur on-site.	Yes
saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	—	SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**Low Potential to Occur:** there is suitable foraging or nesting habitat within the project site but due to high level of disturbance at site and preferable habitat located in Suisun Bay and Honker Bay, it has low potential to occur on-site.	Yes

Table 2 (cont.): Special-status Wildlife Species Potentially Occurring within the Project

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
short-eared owl *Asio flammeus*	—	SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	**Low Potential to Occur:** there is suitable foraging or nesting habitat within the project site but due to high level of disturbance at site and preferable habitat located in Suisun Bay and Honker Bay, it has low potential to occur on-site.	Yes
Suisun song sparrow *Melospiza melodia maxillaris*	—	SSC	Resident of brackish-water marshes surrounding Suisun Bay. Inhabits cattails, tules and other sedges, and Salicornia; also known to frequent tangles bordering sloughs.	**Low Potential to Occur:** there is suitable foraging or nesting habitat within the project site but due to high level of disturbance at site and preferable habitat located in Suisun Bay and Honker Bay, it has low potential to occur on-site.	Yes
Swainson's hawk *Buteo swainsoni*	MBTA	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Potential to Occur:** suitable foraging habitat is present within the Project.	Yes
tricolored blackbird *Agelaius tricolor*	—	SSC	Forages in open habitats such as farm fields, pastures, cattle pens, large lawns. Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California.	**Low Potential to Occur:** there is suitable foraging or nesting habitat within the project site but due to high level of disturbance at site and preferable habitat located in Suisun Bay and Honker Bay, it has low potential to occur on-site.	Yes
yellow rail *Coturnicops noveboracensis*	—	SSC	Shallow marshes, and wet meadows; in winter, drier fresh-water and brackish marshes, as well as dense, deep grass, and rice fields.	**Low Potential to Occur:** there is suitable foraging or nesting habitat within the project site but due to high level of disturbance at site and preferable habitat located in Suisun Bay and Honker Bay, it has low potential to occur on-site.	Yes
Fish					
longfin smelt *Spirinchus thaleichthys*	FC	ST SSC	Longfin smelt spend their adult life in bays, estuaries, and nearshore coastal areas, and migrate into freshwater rivers to spawn. Spawning occurs primarily from January through March, after which most adults die.	**Unlikely to Occur:** no suitable habitat is present within the Project. Lack of rivers or streams on-site.	No
steelhead—Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	FT	—	Populations in the Sacramento and San Joaquin rivers and their tributaries.	**Unlikely to Occur:** no suitable habitat is present within the Project. Lack of rivers or streams on-site.	No

Table 2 (cont.): Special-status Wildlife Species Potentially Occurring within the Project

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Invertebrates					
Conservancy fairy shrimp *Branchinecta conservatio*	FE	—	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Standing water present on-site is low quality and stagnant.	No
vernal pool fairy shrimp *Branchinecta lynchi*	FT	—	Limited to vernal pools in Oregon and California. Occasionally these tiny crustaceans will be found in habitats other than vernal pools, such as artificial pools created by roadside ditches.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. No presence of vernal pools on-site.	No
vernal pool tadpole shrimp *Lepidurus packardi*	FE	—	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. No presence of vernal pools on-site.	No
Mammals					
salt-marsh harvest mouse *Reithrodontomys raviventris*	FE	SE	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	**Unlikely to Occur:** Lack of suitable habitat and extremely high level of disturbance at site preclude presence. Lack of saline wetlands on-site.	No
Amphibians					
California red-legged frog *Rana draytonii*	—	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development	**Low Potential to Occur:** there is suitable foraging or nesting habitat within the project site but due to high level of disturbance at site and preferable habitat located in Suisun Bay and Honker Bay, it has low potential to occur on-site.	Yes
California tiger salamander *Ambystoma californiense*	FT	ST	Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	**Unlikely to Occur:** Lack of suitable nesting habitat and extremely high level of disturbance at site preclude presence. Lack of burrows on-site.	No

Table 2 (cont.): Special-status Wildlife Species Potentially Occurring within the Project

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Code Designations					
[1] Federal Status: 2015 USFWS Listing			**[2] State Status: 2015 CDFW Listing**		
ESU = Evolutionary Significant Unit is a distinctive population. **FE** = Listed as endangered under the FESA. **FT** = Listed as threatened under the FESA. **FC** = Candidate for listing (threatened or endangered) under FESA. **FD** = Delisted in accordance with the FESA. **FPD** = Federally Proposed to be Delisted. **MBTA** = protected by the Migratory Bird Treaty Act **—** = Not federally listed			**SE** = Listed as endangered under the CESA. **ST** = Listed as threatened under the CESA. **SSC** = Species of Special Concern as identified by the CDFW. **FP** = Listed as fully protected under FGC. **CFG** = FGC =protected by FGC 3503.5 **CR** = Rare in California. **—** = Not state listed		
[3] **Habitat description**: Habitat description adapted from CNDDB (CDFW 2015a).					

D.3 - CNDDB and CNPS Inventory Results

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Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Honker Bay (3812118))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
alkali milk-vetch *Astragalus tener var. tener*	PDFAB0F8R1	None	None	G2T2	S2	1B.2
Antioch Dunes evening-primrose *Oenothera deltoides ssp. howellii*	PDONA0C0B4	Endangered	Endangered	G5T1	S1	1B.1
big tarplant *Blepharizonia plumosa*	PDAST1C011	None	None	G1G2	S1S2	1B.1
Bolander's water-hemlock *Cicuta maculata var. bolanderi*	PDAPI0M051	None	None	G5T4	S2	2B.1
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S3	SSC
California black rail *Laterallus jamaicensis coturniculus*	ABNME03041	None	Threatened	G3G4T1	S1	FP
California least tern *Sternula antillarum browni*	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
California red-legged frog *Rana draytonii*	AAABH01022	Threatened	None	G2G3	S2S3	SSC
California Ridgway's rail *Rallus obsoletus obsoletus*	ABNME05016	Endangered	Endangered	G5T1	S1	FP
California tiger salamander *Ambystoma californiense*	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Coastal Brackish Marsh *Coastal Brackish Marsh*	CTT52200CA	None	None	G2	S2.1	
Conservancy fairy shrimp *Branchinecta conservatio*	ICBRA03010	Endangered	None	G2	S2	
Contra Costa wallflower *Erysimum capitatum var. angustatum*	PDBRA16052	Endangered	Endangered	G5T1	S1	1B.1
Delta mudwort *Limosella australis*	PDSCR10030	None	None	G4G5	S2	2B.1
Delta tule pea *Lathyrus jepsonii var. jepsonii*	PDFAB250D2	None	None	G5T2	S2	1B.2
giant gartersnake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2	S2	
longfin smelt *Spirinchus thaleichthys*	AFCHB03010	Candidate	Threatened	G5	S1	SSC
Mason's lilaeopsis *Lilaeopsis masonii*	PDAPI19030	None	Rare	G2	S2	1B.1
saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	ABPBX1201A	None	None	G5T3	S3	SSC
salt-marsh harvest mouse *Reithrodontomys raviventris*	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
San Joaquin Pocket Mouse *Perognathus inornatus*	AMAFD01060	None	None	G2G3	S2S3	
short-eared owl *Asio flammeus*	ABNSB13040	None	None	G5	S3	SSC
soft salty bird's-beak *Chloropyron molle ssp. molle*	PDSCR0J0D2	Endangered	Rare	G2T1	S1	1B.2
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	AFCHA0209K	Threatened	None	G5T2Q	S2	
Suisun Marsh aster *Symphyotrichum lentum*	PDASTE8470	None	None	G2	S2	1B.2
Suisun song sparrow *Melospiza melodia maxillaris*	ABPBXA301K	None	None	G5T3	S3	SSC
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S3	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S3	
vernal pool tadpole shrimp *Lepidurus packardi*	ICBRA10010	Endangered	None	G4	S3S4	
western bumble bee *Bombus occidentalis*	IIHYM24250	None	None	G2G3	S1	
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
yellow rail *Coturnicops noveboracensis*	ABNME01010	None	None	G4	S1S2	SSC

Record Count: 33

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

5 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1B, 2B], FESA is one of [Endangered, Threatened], CESA is one of [Endangered, Threatened, Rare], Found in Quads 3812221, 3812128, 3812127, 3812211, 3812118, 3812117, 3712281 3712188 and 3712187;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Amsinckia grandiflora	large-flowered fiddleneck	Boraginaceae	annual herb	(Mar)Apr-May	1B.1	S1	G1
Chloropyron molle ssp. molle	soft bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Nov	1B.2	S1	G2T1
Erysimum capitatum var. angustatum	Contra Costa wallflower	Brassicaceae	perennial herb	Mar-Jul	1B.1	S1	G5T1
Neostapfia colusana	Colusa grass	Poaceae	annual herb	May-Aug	1B.1	S1	G1
Oenothera deltoides ssp. howellii	Antioch Dunes evening-primrose	Onagraceae	perennial herb	Mar-Sep	1B.1	S1	G5T1

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The Jepson Flora Project
The Consortium of California Herbaria
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Questions and Comments
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