

SPECIAL-STATUS PLANT SURVEY REPORT
3422 SANTA ROSA AVENUE
(APN: 134-132-070)
SANTA ROSA, CA

Prepared for:

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1.0 INTRODUCTION

The purpose of this report is to provide the result of special-status plant surveys conducted in 2013 and 2014 at an approximately 4.11-acre parcel located at 3422 Santa Rosa Avenue (APN 134-132-070) (Site) in Santa Rosa, CA.

1.1 SITE LOCATION

The Site comprises approximately 4.11 acres at the southeast corner of Santa Rosa Avenue and East Robles Avenue in Santa Rosa, CA (Figure 1). Residential development occurs to the north and east of the Site, and undeveloped fallow land occurs to the south (Figure 2). Retail businesses occur on the west side of Santa Rosa Avenue, across from the Site and a small lot supporting retail businesses occurs adjacent to the southwest corner of the Site (Figure 2).

1.2 RECENT AND CURRENT LAND USE

The land use designation for the Site is Urban Residential. Much of the area surrounding the Site appears to have been in place since at least 1993 based on the earliest aerial photographs from Google Earth.

1.3 PHYSICAL AND HYDROLOGIC CONDITIONS

1.3.1 Topography and Drainage

The property is relatively flat, with less than two feet elevational change across the Site from west to east (less than 1%). No natural drainage features are present several depressional area occur along the eastern and southern side of the Site that pond water for sufficient duration to support wetlands.

1.3.2 Soils

The soils on the site are mapped by the Soil Conservation Service¹ as belonging to the ponded phase of the Wright loam series, 0-2 percent slopes. Generally, Wright loam series consists of somewhat poorly drained and moderately well drained loamy soils with a clay subsoil.

¹ U.S. Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, accessed June 16, 2014.

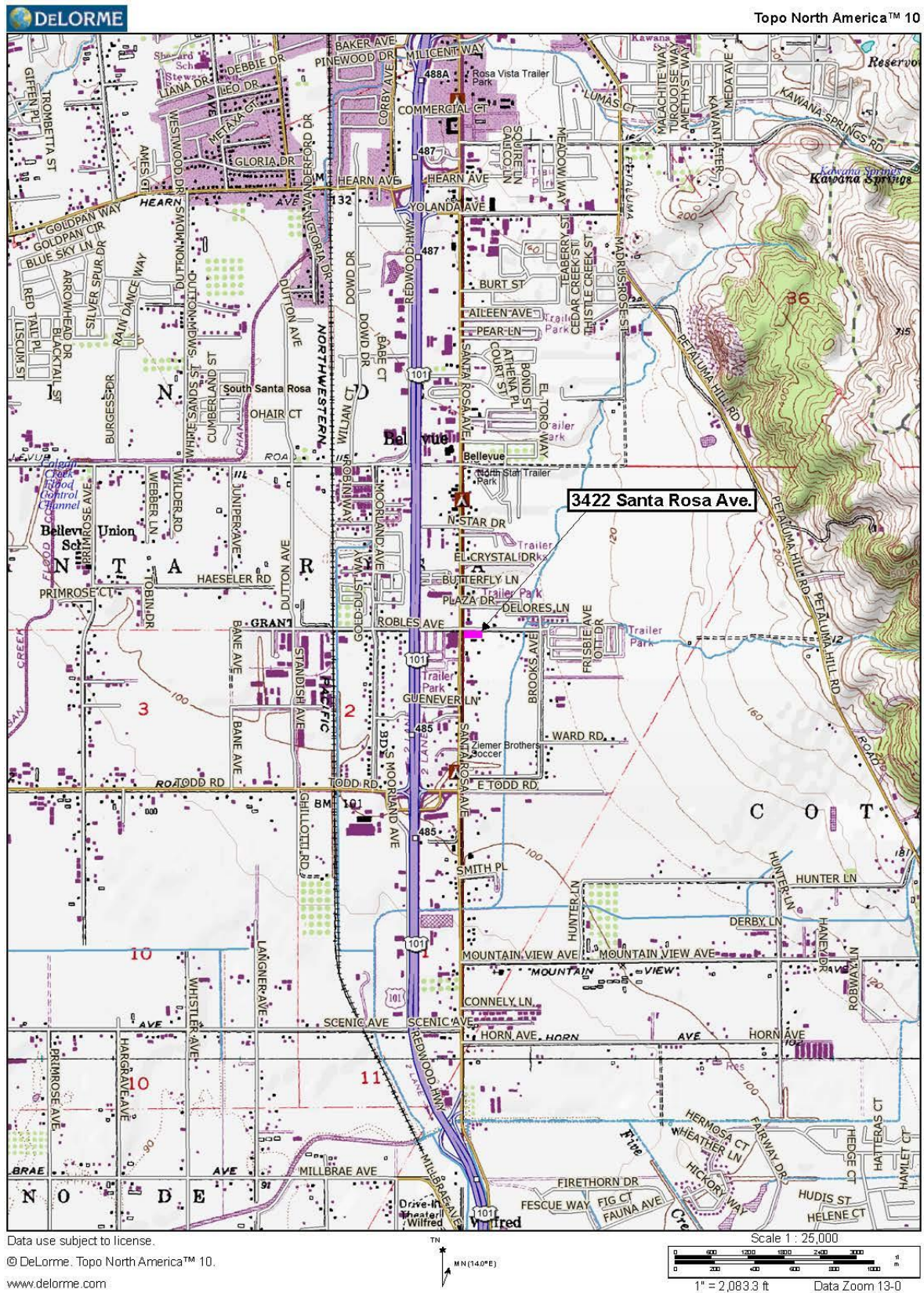


Figure 1. Site location map.



Figure 2. Site vicinity map.

2.0 SURVEY PROTOCOLS

The vegetation at the Site was surveyed on the following dates in 2013 and 2014 by Dr. Ted P. Winfield: April 2, April 12 and May 3, 2013, and April 7, April 16, and May 1, 2014. Table 1 presents the sample dates, the reference sites visited and the species in flower at the reference sites at the time of the visit.

Table 1. Survey dates, reference sites and plants in flower at time of reference site visits.

DATE	REFERENCE SITE	SPECIES
April 2, 2013	Carinalli-Todd Road Mitigation Bank	LIVI, BLBA
April 12, 2013	Carinalli-Todd Road Mitigation Bank Alton North Conservation Bank	LIVI, BLBA BLBA, LABU
May 3, 2013	Alton North Conservation Bank	BLBA, LABU
April 7, 2014	Skate Park-City Site on Piner Avenue Alton North Conservation Bank	BLBA BLBA
April 16, 2014	Swift Conservation Bank Alton North Conservation Bank Skate Park-City Site on Piner Avenue	LIVI BLBA, LABU BLBA
May 1, 2014	Marlow Gobbi Mitigation Site (natural pools) Alton North Conservation Bank	LABU BLBA, LIVI LABU

Species: LIVI – *Limnanthes vinculins* (Sebastopol meadowfoam)

BLBA – *Blennosperma bakeri* (Sonoma sunshine)

LABU – *Lasthenia burkei* (Burke's goldfields)

The surveys were conducted following the U.S. Fish and Wildlife Service protocols² and the California Department of Fish and Wildlife protocols³. The entire Site was walked and plant species observed and identifiable during each survey noted in a field notebook. The seasonal wetlands were thoroughly searched for possible presence of the Federal- and State-listed endangered Burke's goldfields (*Lasthenia burkei*), Sonoma sunshine (*Blennosperma bakeri*) and Sebastopol meadowfoam (*Limnanthes vinculans*).

Reference sites were visited during same day that the surveys were conducted, as indicated in Table 1. During 2014, other botanists were also consulted about flowering of the endangered plants at other sites to confirm that the target endangered plant species were also flowering at other sites throughout the Santa Rosa Plain.

² Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed Plants on the Santa Rosa Plain. Modified from the September 23, 1996 Service Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants.

³ California Department of Fish and Game (CDFG). Protocols for surveying and evaluating impacts to special status native plant populations and natural communities. November 24, 2009.

3.0 FINDINGS

3.1 INTRODUCTION

The Site consists primarily of upland habitat dominated by non-native annual grasses and forbs. Four small areas of seasonal wetland habitat totaling approximately 0.35 acre occurs around the eastern and southern margins according to the preliminary jurisdictional determination verified by the U.S. Army Corps of Engineers (Figure 3).

A list of species observed at the Site during the special-status plant surveys is presented in Appendix A.

3.1.1 Annual Grasslands

The non-native annual grassland habitat is dominated by non-native annual grass species and forbs. Common non-native grass species include slender oats⁴ (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), ryegrass (*Festuca perennis*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), foxtail fescue (*Festuca myuros*) and Harding grass (*Phalaris aquatica*). The more common forb species include chicory (*Cichorium intybus*), rough cat's-ear (*Hypochaeris radicata*), prickly lettuce (*Lactuca serriola*), bristly ox-tongue (*Helminthotheca echinoides*) purple salsify (*Tragopogon porrifolius*), black mustard (*Brassica nigra*), wild radish (*Raphanus sativa*), filaree (*Erodium botrys*, *E. cicutarium*), vetch (*Vicia sativa*), bur clover (*Medicago polymorpha*), and Himalayan blackberry (*Rubus armeniacus*).

3.1.2. Seasonal Wetlands

Approximately 0.35 acre of seasonal wetland habitat is present at the Site (Figure 3). Common wetland species present in these wetlands include Mediterranean barley, California semaphore grass (*Pleuropogon californicus*), meadow barley (*Hordeum brachyantherum*), rabbit's-foot grass (*Polypogon monspeliensis*), dense sedge (*Carex densa*), spike rush (*Eleocharis macrostachya*), brown-headed rush (*Juncus phaeocephalus*), and curly dock (*Rumex crispus*). Other plants present in the wetlands included the invasive pennyroyal (*Mentha pulegium*), prickly-seeded buttercup (*Ranunculus muricatus*), and hyssop loosestrife (*Lythrum hyssopifolium*).

⁴ Plant nomenclature follows The Jepson Manual (2012). Vascular Plants of California. Second Edition. University of California Press, Berkeley, CA.

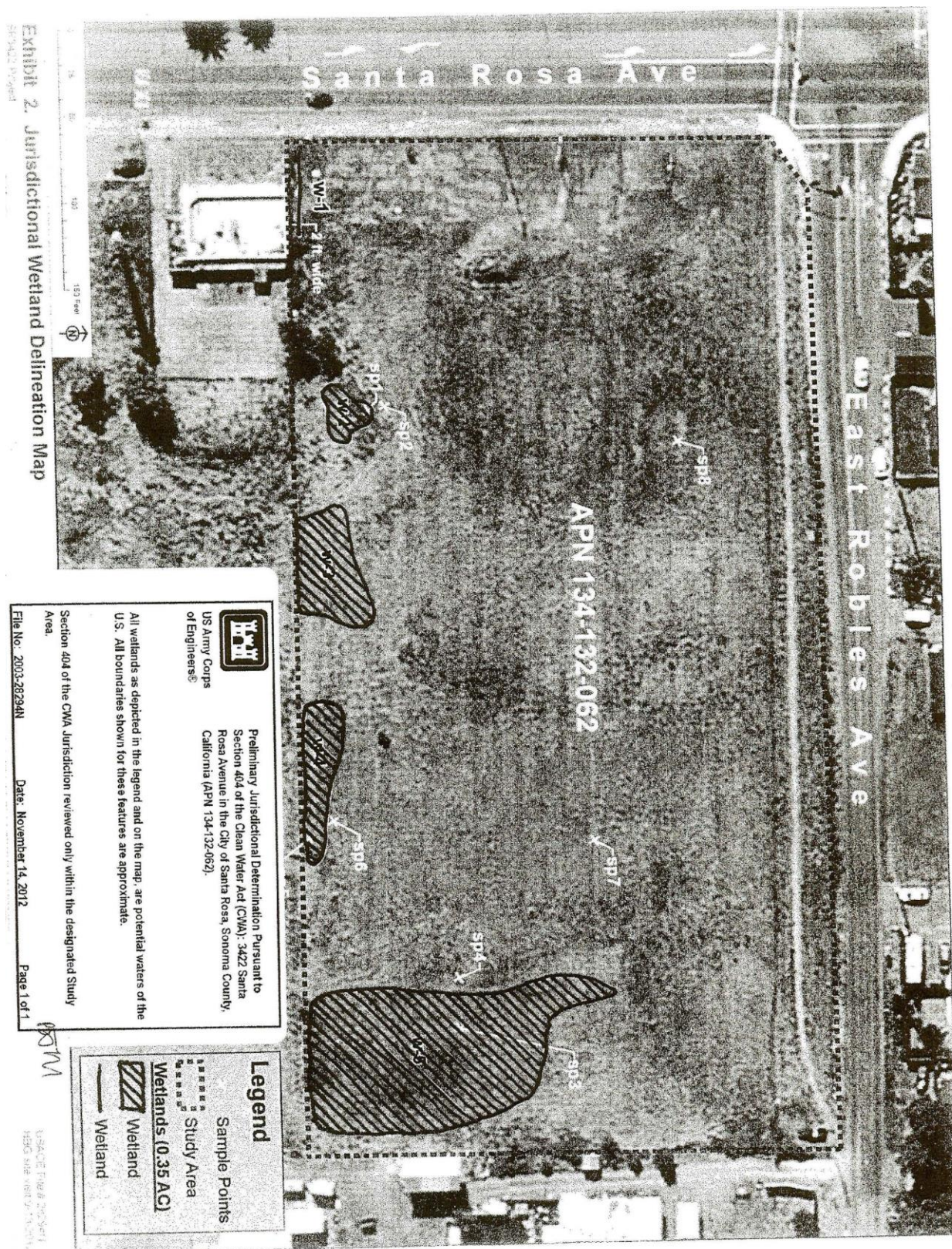


Figure 3. Verified preliminary wetland jurisdictional map verified by the U.S. Army Corps of Engineers November 14, 2012. The correct APN is 134-132-070.

3.2 SPECIAL-STATUS PLANTS

The California Natural Diversity Database (CNDDDB), and California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants were searched for information on special-status plants for Santa Rosa, Sebastopol, Healdsburg, Two Rocks, and Cotati USGS Quadrangle maps, which defines the low land areas in the region. Special-status plant species are defined in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*⁵ to include all plant species that meet one or more of the following criteria:

- Listed or proposed for listing as threatened or endangered under FESA or candidates for possible future listing as threatened or endangered under FESA (50 CFR §17.12).
- Listed or candidates for listing by the State of California as threatened or endangered under CESA (Fish and Game Code §2050 *et seq.*).
- Listed as rare under the California Native Plant Protection Act (Fish and Game Code §1900 *et seq.*). A plant is **rare** when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens (Fish and Game Code §1901).
- Meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
 - ♦ Species considered by the California Native Plant Society (CNPS) to be “rare, threatened or endangered in California” (Lists 1A, 1B and 2);
 - ♦ Species that may warrant consideration on the basis of local significance or recent biological information;
 - ♦ Some species included on the California Natural Diversity Database’s (CNDDDB) *Special Plants, Bryophytes, and Lichens List* (California Department of Fish and Game 2008).
- Considered a **locally significant species**, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

A total of fifty-two special-status plants were identified as occurring in the region (Table 2). The list of these special-status plant species, their flowering period, habitat preference, and potential to occur at the Site is presented in Table 3.

⁵ California Department of Fish and Game (CDFG). *Protocols for surveying and evaluating impacts to special status native plant populations and natural communities*. November 24, 2009.

Table 2. List of special-status plant species reported to occur in the region and their regulatory status.

SCIENTIFIC NAME	COMMON NAME	FEDERAL STATUS*	STATE STATUS*	CNPS LIST
<i>Alopecurus aequalis</i> var. <i>sonomensis</i>	Sonoma alopecurus	E		1B.1
<i>Amorpha californica</i> var. <i>napensis</i>	Napa false indigo			1B.2
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck			1B.2
<i>Arctostaphylos canescens</i> ssp. <i>sonomensis</i>	Sonoma canescent manzanita			1B.2
<i>Arctostaphylos densiflora</i>	Vine Hill manzanita		E	1B.1
<i>Arctostaphylos stanfordiana</i> ssp. <i>decumbens</i>	Rincon Ridge manzanita			1B.1
<i>Astragalus claranus</i>	Clara Hunt's milk-vetch	E	T	1B.1
<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	big-scale balsamroot			1B.2
<i>Blennosperma bakeri</i>	Sonoma sunshine	E	E	1B.1
<i>Brodiaea californica</i> var. <i>leptandra</i>	narrow-anthered California brodiaea			1B.2
<i>Calamagrostis crassiglumis</i>	Thurber's reed grass			2.1
<i>Campanula californica</i>	swamp harebell			1B.2
<i>Carex albida</i>	white sedge	E	E	1B.1
<i>Castilleja uliginosa</i>	Pitkin Marsh paintbrush		E	1A
<i>Ceanothus confusus</i>	Rincon Ridge ceanothus			1B.1
<i>Ceanothus divergens</i>	Calistoga ceanothus			1B.2
<i>Ceanothus foliosus</i> var. <i>vineatus</i>	Vine Hill ceanothus			1B.1
<i>Ceanothus sonomensis</i>	Sonoma ceanothus			1B.2
<i>Centromadia parryi</i> ssp. <i>parryi</i>	pappose tarplant			1B.2
<i>Chorizanthe valida</i>	Sonoma spineflower	E	E	1B.1
<i>Clarkia imbricata</i>	Vine Hill clarkia	E	E	1B.1
<i>Cordylanthus tenuis</i> ssp. <i>capillaris</i>	Pennell's bird's-beak	E	R	1B.2
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder			2.2
<i>Delphinium luteum</i>	golden larkspur	E	R	1B.1
<i>Downingia pusilla</i>	dwarf downingia			2.2
<i>Erigeron serpentinus</i>	serpentine daisy			1B.3
<i>Fritillaria liliacea</i>	fragrant fritillary			1B.2
<i>Gilia capitata</i> ssp. <i>tomentosa</i>	wooly-headed gilia			1B.1
<i>Hemizonia congesta</i> ssp. <i>congesta</i>	seaside tarplant			1B.2
<i>Horkelia tenuiloba</i>	thin-lobed horkelia			1B.2
<i>Lasthenia burkei</i>	Burke's goldfields	E	E	1B.1
<i>Lasthenia californica</i> ssp. <i>bakeri</i>	Baker's goldfields			1B.2
<i>Legenere limosa</i>	legenere			1B.1
<i>Leptosiphon jepsonii</i>	Jepson's leptosiphon			1B.2
<i>Lilium pardalinum</i> ssp. <i>pitkinense</i>	Pitkin Marsh lily	E	E	1B.1
<i>Limnanthes vinculans</i>	Sebastopol meadowfoam	E	E	1B.1

<i>Mertensia bella</i>	Oregon lungwort			2.2
<i>Microseris paludosa</i>	marsh microseris			1B.2
<i>Monardella villosa</i> ssp. <i>globosa</i>	robust monardella			1B.2
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia			1B.1
<i>Navarretia leucocephala</i> ssp. <i>plieantha</i>	many-flowered navarretia	E	E	1B.2
<i>Pleuropogon hooverianus</i>	North Coast semaphore grass		T	1B.1
<i>Potentilla uliginosa</i>	Cunningham Marsh cinquefoil			1A
<i>Rhynchospora alba</i>	white beaked-rush			1B.1
<i>Rhynchospora californica</i>	California beaked-rush			2.2
<i>Rhynchospora capitellata</i>	brownish beaked-rush			2.1
<i>Rhynchospora globularis</i>	round-headed beaked-rush			1B.1
<i>Trifolium amoenum</i>	showy rancheria clover	E		1B.1
<i>Trifolium buckwestiorum</i>	Santa Cruz clover			1B.2
<i>Trifolium hydrophilum</i>	saline clover			1B.2
<i>Triquetrella californica</i>	coastal triquetrella			2.3
<i>Viburnum ellipticum</i>	oval-leaved viburnum			2.3

* Federal Status: E = Endangered; State Status: E = Endangered, R = Rare, T = Threatened
CNPS Designations: List 1A = Species presumed extinct in California. List 1B = Species rare and endangered in California and elsewhere. List 2 = Species rare and endangered in California but more common elsewhere. List 3 = Species for which additional data are needed.

Table 3. Special-status plant species reported to occur in the region, their flowering period, habitat preference and likelihood of occurring at the Site.

Scientific Name	Common Name	Flowering Period	Habitat	Potential Occurrence at Site
<i>Alopecurus aequalis</i> var. <i>sonomensis</i>	Sonoma alopecurus	May-July	Marshes and swamps (freshwater); riparian scrub	Unlikely. Habitats for species not present at site
<i>Amorpha californica</i> var. <i>napensis</i>	Napa false indigo	Apr-July	Broadleafed upland forest (openings); chaparral; cismontane woodland	Unlikely. Habitats for species not present at site
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	Mar-June	Coastal bluff scrub; cismontane woodland; valley and foothill grassland	Low. Marginally suitable grassland habitat present, but not observed during surveys
<i>Arctostaphylos canescens</i> ssp. <i>sonomensis</i>	Sonoma canescent manzanita	Jan-June	Chaparral; cismontane woodland; lower montane coniferous forest/ sometimes serpentine	Unlikely. Habitats for species not present at site
<i>Arctostaphylos densiflora</i>	Vine Hill manzanita	Feb-April	Chaparral	Unlikely. Habitats for species not present at site
<i>Arctostaphylos stanfordiana</i> ssp. <i>decumbens</i>	Rincon Ridge manzanita	Feb-Apr (May)	Chaparral; cismontane woodland	Unlikely. Habitats for species not present at site
<i>Astragalus claranus</i>	Clara Hunt's milk-vetch	Mar-May	Chaparral (openings); cismontane woodland; valley and foothill grassland/serpentine or volcanic, rocky, clay	Unlikely. Habitats for species not present at site
<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	big-scale balsamroot	Mar-June	Chaparral; cismontane woodland; valley and foothill grassland/ sometimes serpentine	Unlikely. Habitats for species not present at site
<i>Blennosperma bakeri</i>	Sonoma sunshine	Mar-May	Valley and foothill grasslands (mesic); vernal pools	Low. Marginally suitable grassland habitat present, but not observed during surveys
<i>Brodiaea californica</i> var. <i>leptandra</i>	narrow-anthered California brodiaea	May-July	Broadleafed upland forest; chaparral; cismontane woodland; lower montane coniferous forest; valley and foothill grassland (volcanic)	Unlikely. Habitats for species not present at site

<i>Calamagrostis crassiglumis</i>	Thurber's reed grass	May-July	Coastal scrub (mesic); marshes and swamps (freshwater)	Unlikely. Habitats for species not present at site
<i>Campanula californica</i>	swamp harebell	Jun-Oct	Bogs and fens; closed-cone coniferous forest; coastal prairie; meadows and seeps; marshes and swamps (freshwater); north coast coniferous forest	Unlikely. Habitats for species not present at site
<i>Carex albidula</i>	white sedge	May-July	Bogs and fens; marshes and swamps (freshwater)	Unlikely. Habitats for species not present at site
<i>Castilleja uliginosa</i>	Pitkin Marsh paintbrush	Jun-July	Marshes and swamps (freshwater)	Unlikely. Habitats for species not present at site
<i>Ceanothus confusus</i>	Rincon Ridge ceanothus	Feb-June	Closed-cone coniferous forest; chaparral; cistostemoid woodland/volcanic or serpentine	Unlikely. Habitats for species not present at site
<i>Ceanothus divergens</i>	Calistoga ceanothus	Feb-May	Chaparral (serpentine or volcanic, rocky)	Unlikely. Habitats for species not present at site
<i>Ceanothus foliosus</i> var. <i>vineatus</i>	Vine Hill ceanothus	Mar-May	Chaparral	Unlikely. Habitats for species not present at site
<i>Ceanothus sonomensis</i>	Sonoma ceanothus	Feb-April	Chaparral (sandy, serpentine or volcanic)	Unlikely. Habitats for species not present at site
<i>Centromadia parryi</i> ssp. <i>parryi</i>	pappose tarplant	May-Nov	Chaparral; coastal prairie; meadows and seeps; marshes and swamps (coastal salt marshes); valley and foothill grassland (vernally mesic/often alkaline)	Unlikely. Habitats for species not present at site
<i>Chorizanthe valida</i>	Sonoma spineflower	Jun-Aug	Coastal prairie (sandy)	Unlikely. Habitats for species not present at site
<i>Clarkia imbricata</i>	Vine Hill clarkia	Jun-Aug	Chaparral; valley and foothill grassland/acidic sandy loam	Unlikely. Habitats for species not present at site
<i>Cordylanthus tenuis</i> ssp. <i>capillaris</i>	Pennell's birds-beak	Jun-Sept	Closed-cone coniferous forest; chaparral	Unlikely. Habitats for species not present at site
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	Jul-Oct	Marshes and swamps (freshwater)	Unlikely. Habitats for species not present at site
<i>Delphinium luteum</i>	golden larkspur	Mar-May	Chaparral; coastal prairie; coastal scrub/rocky	Unlikely. Habitats for species not present at site

<i>Downingia pusilla</i>	dwarf downingia	Mar-May	Valley and foothill grasslands (mesic); vernal pools	Unlikely. Habitats for species not present at site
<i>Erigeron serpentinus</i>	serpentine daisy	May-Aug	Chaparral (serpentinite, seeps)	Unlikely. Habitats for species not present at site
<i>Fritillaria liliacea</i>	fragrant fritillary	Feb-Apr	Cismontane woodland; coastal prairie; coastal scrub; valley and foothill grassland/often serpentinite	Unlikely. Habitats for species not present at site
<i>Gilia capitata</i> ssp. <i>tomentosa</i>	wooly-headed gilia	May-Jul	Coastal bluff scrub, valley and foothill grasslands/serpentinite; rocky outcrops	Unlikely. Habitats for species not present at site
<i>Hemizonia congesta</i> ssp. <i>congesta</i>	seaside tarplant	Apr-Nov	Valley and foothill grassland/ sometimes roadsides	Low. Marginally suitable grassland habitat present, but not observed during surveys
<i>Horkelia tenuiloba</i>	thin-lobed horkelia	May-July	Broadleaved upland forest; chaparral; valley and foothill grassland/mesic openings, sandy	Unlikely. Habitats for species not present at site
<i>Lasthenia burkei</i>	Burke's goldfields	Apr-June	meadows and seeps; vernal pools	Low. Marginally suitable grassland habitat present, but not observed during surveys
<i>Lasthenia californica</i> ssp. <i>bakeri</i>	Baker's goldfields	Apr-Oct	Closed-cone coniferous forest (openings); coastal scrub; meadows and seeps; marshes and swamps	Unlikely. Habitats for species not present at site
<i>Legenere limosa</i>	legenere	Apr-June	Vernal pools	Low. Marginally suitable grassland habitat present, but not observed during surveys
<i>Leptosiphon jepsonii</i>	Jepson's leptosiphon	Mar-May	Chaparral; cismontane woodland	Unlikely. Habitats for species not present at site
<i>Lilium pardalinum</i> ssp. <i>pitkinense</i>	Pitkin Marsh lily	Jun-July	Cismontane woodland; meadows and seeps, marshes and swamps (freshwater)/mesic, sandy	Unlikely. Habitats for species not present at site
<i>Limnanthes vinculans</i>	Sebastopol meadowfoam	Apr-May	Meadows and seeps, valley and foothill grassland; vernal pools/vernally mesic	Low. Marginally suitable grassland habitat present, but not observed during surveys

<i>Mertensia bella</i>	Oregon lungwort	May-July	Meadows and seeps; upper montane coniferous forest/mesic	Unlikely. Habitats for species not present at site
<i>Microseris paludosa</i>	marsh microseris	Jun-July (Aug)	Closed-cone coniferous forest; cismontane woodland; coastal scrub; valley and foothill grassland	Unlikely. Habitats for species not present at site
<i>Monardella villosa</i> ssp. <i>globosa</i>	robust monardella	Jun-July (Aug)	Broadleaved upland forest (openings); chaparral (openings); cismontane woodland; coastal scrub; valley and foothill grassland	Low. Marginally suitable habitat present in seasonal wetlands but not observed during present or previous surveys.
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia	April-July	Cismontane woodland; lower montane coniferous forest; meadows and seeps; valley and foothill grassland; vernal pools/mesic	Unlikely. Habitats for species not present at site
<i>Navarretia leucocephala</i> ssp. <i>plieantha</i>	many-flowered navarretia	May-June	Vernal pools (volcanic ash flow)	Low. Marginally suitable grassland habitat present, but not observed during surveys
<i>Pleuropogon hooverianus</i>	North Coast semaphore grass	Apr-June	Broadleaved upland forest; meadows and seeps; north coastal coniferous forest/open areas, mesic	Unlikely. Habitats for species not present at site
<i>Potentilla uliginosa</i>	Cunningham Marsh cinquefoil	May-Aug	Marshes and swamps/freshwater, permanent oligotrophic wetlands	Unlikely. Habitats for species not present at site
<i>Rhynchospora alba</i>	white beaked-rush	Jul-Aut	Bogs and fens; meadows and seeps; marshes and swamps (freshwater)	Unlikely. Habitats for species not present at site
<i>Rhynchospora californica</i>	California beaked-rush	May-July	Bogs and fens; lower montain coniferous forest; meadows and seeps; marshes and swamps	Unlikely. Habitats for species not present at site
<i>Rhynchospora capitellata</i>	brownish beaked-rush	Jul-Aug	Lower montane coniferous forest; meadows and seeps; marshes and swamps; upper montane coniferous forest/mesic	Unlikely. Habitats for species not present at site
<i>Rhynchospora globularis</i>	round-headed beaked-rush	Jul-Aug	Marshes and swamps (freshwater)	Unlikely. Habitats for species not present at site

<i>Trifolium amoenum</i>	showy rancheria clover	Apr-June	Coastal bluff scrub; valley and foothill grassland (sometimes serpentine)	Low. Marginally suitable grassland habitat present, but not observed during surveys
<i>Trifolium buckwestiorum</i>	Santa Cruz clover	Apr-Oct	broadleafed upland forest, cismontane woodland, coastal prairie/gravelly margins	Unlikely. Habitats for species not present at site
<i>Trifolium hydrophilum</i>	saline clover	Apr-June	Marshes and swamps; valley and foothill grasslands (mesic, alkaline)	Unlikely. Habitats for species not present at site
<i>Triquetrella californica</i>	coastal triquetrella	N/A	Coastal bluff scrub; coastal scrub/soil	Unlikely. Habitats for species not present at site
<i>Viburnum ellipticum</i>	oval-leaved viburnum	May-June	Chaparral; cismontane woodland; lower montane coniferous forest	Unlikely. Habitats for species not present at site

Marginally suitable habitat was present at the Site for several of the species that occur in grassland habitat and seasonal wetland/vernal pool habitat, including Burke's goldfields, Sonoma sunshine and Sebastopol meadowfoam. All three of the endangered wetland species were observed to be flowering at reference sited during each of the survey days in 2013 and 2014 but none of these species were observed at the Site during the special-status plant surveys conducted in 2013 and 2014.

None of the other special-status species reported to occur in upland grassland habitat or in marshes, swamps or other wetland habitat were observed during the special-status plant surveys.

APPENDIX A. LIST OF SPECIES OBSERVED DURING 2013-2014 SPECIAL-STATUS PLANT SURVEYS.

FAMILY	SCIENTIFIC NAME ⁶	COMMON NAME
	DICOTYLEDONS	
APIACEAE - Carrot Family		
	<i>Foeniculum vulgare</i> *	fennel
ASTERACEAE - Sunflower Family		
	<i>Chamomilla suaveolens</i> *	pineapple weed
	<i>Cichorium intybus</i> *	chicory
	<i>Helminthotheca echinoides</i> *	bristly ox-tongue
	<i>Hypochaeris radicata</i> *	hairy cat's-ear
	<i>Lactuca serriola</i> *	prickly lettuce
	<i>Senecio vulgaris</i> *	common groundsel
	<i>Tragopogon porrifolius</i> *	purple salsify
	<i>Xanthium strumarium</i>	cocklebur
BRASSICACEAE - Mustard Family		
	<i>Brassica nigra</i> *	black mustard
	<i>Brassica rapa</i> *	field mustard
	<i>Raphanus sativus</i> *	wild radish
	<i>Rorippa curvisiliqua</i>	Western yellowcress
CONVOLVULACEAE - Morning Glory Family		
	<i>Convolvulus arvensis</i> *	bindweed
FABACEAE - Legume Family		
	<i>Lupinus bicolor</i>	miniature lupine
	<i>Medicago polymorpha</i> *	common burclover
	<i>Vicia sativa</i> *	spring vetch
GERANIACEAE - Geranium Family		
	<i>Erodium botrys</i> *	broad leaf filaree
	<i>Erodium cicutarium</i> *	redstem filaree
	<i>Geranium dissectum</i> *	cut-leaved geranium
LAMIACEAE - Mint Family		
	<i>Mentha pulegium</i> *	pennyroyal
LYTHRACEAE - Loosestrife Family		
	<i>Lythrum hyssopifolium</i> *	hyssop loosestrife
PAPAVERACEAE - Poppy Family		
	<i>Eschscholzia californica</i>	California poppy
PLANTAGINACEAE - Plantain Family		
	<i>Plantago lanceolata</i> *	English plantain
POLYGONACEAE - Buckwheat Family		
	<i>Polygonum aviculare</i> *	prostrate knotweed
	<i>Rumex acetosella</i> *	sheep sorrel
	<i>Rumex crispus</i> *	curly dock
	<i>Rumex pulcher</i> *	fiddle dock
PRIMULACEAE - Primrose Family		
	<i>Anagallis arvensis</i> *	scarlet pimpernel

⁶ Plant nomenclature follows The Jepson Manual: Higher Plants of California. Second Edition. B.G. Baldwin (convening editor). University of California Press, Berkeley, CA.

FAMILY	SCIENTIFIC NAME⁶	COMMON NAME
RANUNCULACEAE - Buttercup Family		
	<i>Ranunculus muricatus</i> *	prickle-seeded buttercup
ROSACEAE - Rose Family		
	<i>Rubus armeniacus</i> *	Himalayan blackberry
	MONOCOTYLEDONS	
CYPERACEAE – Sedge Family		
	<i>Carex densa</i>	dense sedge
	<i>Eleocharis macrostachya</i>	spike rush
JUNCACEAE – Rush Family		
	<i>Juncus phaeocephalus</i>	brown headed rush
POACEAE - Grass Family		
	<i>Avena barbata</i> *	slender wild oat
	<i>Avena fatua</i> *	wild oat
	<i>Briza minor</i> *	little quaking grass
	<i>Bromus carinatus</i>	California brome
	<i>Bromus diandrus</i> *	ripgut brome
	<i>Bromus hordeaceus</i> *	soft chess
	<i>Cynodon dactylon</i> *	Bermuda grass
	<i>Crypsis schoenoides</i> *	swamp grass
	<i>Festuca bromoides</i> *	six-weeks fescue
	<i>Festuca myuros</i> *	foxtail fescue
	<i>Festuca perennis</i> *	perennial ryegrass
	<i>Hordeum branchyantherum</i>	meadow barley
	<i>Hordeum marinum</i> ssp. <i>gussoneanum</i> *	Mediterranean barley
	<i>Hordeum murinum</i> ssp. <i>leporinum</i> *	hare barley, foxtail
	<i>Phalaris aquatica</i> *	Harding grass
	<i>Pleuropogon californicus</i>	semaphore grass
	<i>Polypogon monspeliensis</i> *	rabbit's-foot grass

Note: * indicates non-native species

Reference Sites and Observation Dates

DATE	REFERENCE SITE	SPECIES
April 2, 2013	Carinalli-Todd Road Mitigation Bank	LIVI, BLBA
April 12, 2013	Carinalli-Todd Road Mitigation Bank Alton North Conservation Bank	LIVI, BLBA BLBA, LABU
May 3, 2013	Alton North Conservation Bank	BLBA, LABU
April 7, 2014	Skate Park-City Site on Piner Avenue Alton North Conservation Bank	BLBA BLBA
April 16, 2014	Swift Conservation Bank Alton North Conservation Bank Skate Park-City Site on Piner Avenue	LIVI BLBA, LABU BLBA
May 1, 2014	Marlow Gobbi Mitigation Site (natural pools) Alton North Conservation Bank	LABU BLBA, LIVI LABU

Species: LIVI – *Limnanthes vinculins* (Sebastopol meadowfoam)
BLBA – *Blennosperma bakeri* (Sonoma sunshine)
LABU – *Lasthenia burkei* (Burke's goldfields)