

**2017-2018 Annual Monitoring Report
±588-Acres Rocklin Open Space Preserve
City of Rocklin, California**

Regulatory Permits: Brighton (SPK-2014-00353), Claremont (SPK-1999-00728), Orchard Creek (SPK-2000-00007), Stanford Ranch (SPK-1901-09988), Sunset West (SPK-1993-00519), and Whitney Ranch (SPK-1998-00668)

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City of Rocklin

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TABLE OF CONTENTS

1.0	Project Background.....	1
1.1.	Background.....	1
1.2.	Success Criteria	2
1.2.1.	Residual Dry Matter Monitoring.....	2
1.2.2.	Vernal Pool Monitoring.....	2
2.0	Monitoring Methodology	3
2.1.1.	General Preserve Inspections	3
2.1.2.	Invasive Species Monitoring	3
2.1.3.	Vernal Pool Invertebrate Monitoring	3
2.1.6.	Vernal Pool Floristic Monitoring.....	4
2.1.7.	Residual Dry Matter Monitoring.....	4
2.1.8.	Riparian Monitoring.....	4
2.1.9.	Vegetative Community Mapping.....	5
2.1.10.	Aquatic Resources Delineation	5
2.1.11.	Oak Woodland Monitoring	5
3.0	Baseline Study Results	7
3.1.	Vegetative Communities Mapping.....	7
3.1.1.	Annual Grassland	7
3.1.2.	Depressional Seasonal Marsh.....	7
3.1.3.	Depressional Seasonal Wetland	8
3.1.4.	Disturbed/Landscaped.....	8
3.1.5.	Ephemeral Drainage	8
3.1.6.	Riparian Woodland	8
3.1.7.	Perennial Drainage.....	8
3.1.8.	Riverine Perennial Marsh.....	9
3.1.9.	Riverine Seasonal Swale.....	9
3.1.10.	Riverine Seasonal Wetland	9
3.2.	Aquatic Resources Delineation	9
3.3.	Oak Woodland Inventory	9
4.0	Annual Monitoring Results	11
4.1.	Special-Status Plant Species.....	11

4.1.1.	Updated Rare Plant Inventory	11
4.1.2.	Special-Status Plant Occurrence	12
4.1.3.	Special-Status Wildlife Species	12
4.1.4.	Valley Elderberry Longhorn Beetle	12
4.2.	Invasive Species Mapping	13
4.3.	Vernal Pool Monitoring.....	16
4.3.1.	Invertebrate and Hydrological Monitoring.....	16
4.3.2.	Vernal Pool Floristic Monitoring.....	18
4.4.	Residual Dry Matter and Vegetative Monitoring.....	18
4.5.	Wetland and Riparian Monitoring	20
4.6.	Preserve Conditions and General Surveys	20
4.7.	Wildlife Observations	20
5.0	Conclusions and Recommendations.....	21
5.1.	Recommendations	21
6.0	References	25

List of Tables

Table 1 — Preserve Area by Habitat Types	1
Table 2 — Braun Blanquet Scale.....	4
Table 3 — Tree Rating System	6
Table 4 — Vegetative Community Acreages for Brighton Open Space Preserve.....	7
Table 5 — Wetland Acreages for the Brighton Open Space Preserve	9
Table 6 — Number of Trees by Health and Structure Ratings.....	10
Table 7 — Invasive Species Occurrences	14
Table 8 — Summary of Invasive Species Control Techniques	15
Table 9 — Summary of Sample Vernal Pools.....	17
Table 10 — Vernal Pool Sample Results	17
Table 11 — Summary of RDM Data in Annual Grasslands	19
Table 12 — Summary of RDM Data in Oak Woodlands	19
Table 13 — Summary and State of Monitoring Goals	23

List of Charts

Chart 1 — Summary of RDM Results	19
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List of Figures

Figure 1 — Site and Vicinity 27
Figure 2 — Location of RDM Monitoring Points..... 28
Figure 3 — Preserve Conditions..... 29
Figure 4 — Biological Communities for Brighton Open Space 38
Figure 5 — Aquatic Resources Delineation Map 39
Figure 6 — Oak Tree Locations and Oak Woodland for Brighton Open Space 40
Figure 7 — Aquatic Resources Delineation for Brighton Open Space..... 41
Figure 8 — Hispid's Bird's-Beak Occurrences 42
Figure 9 — Elderberry Shrub Locations 43
Figure 10 — Invasive Species 44
Figure 11 — Sampled Pool Areas..... 45
Figure 12 — Sampled Vernal Pools and Listed Branchiopod Occurrences 46

List of Appendices

- Appendix A — Representative Site Photographs
- Appendix B — Vernal Pool Invertebrate Survey Datasheets
- Appendix C — Vernal Pool Floristic Datasheets
- Appendix D — RDM Sampling Datasheets
- Appendix E — Oak Tree Survey Data for Brighton Open Space
- Appendix F — Observed Plant and Wildlife Species Lists

Executive Summary

This report presents the results of the 2017-2018 monitoring of the approximate 588-acre Rocklin Open Space Preserve (Preserve). The Preserve includes the 3-acre Brighton Open Space Preserve, the 24-acre Orchard Creek Preserve, the 309-acre Stanford Ranch Preserve, the 146-acre Sunset West Preserve, the 91-acre Whitney Ranch Preserve, and the 15-acre Claremont Preserve. The City of Rocklin (City) adopted the *City of Rocklin General Open Space Management Plan* (GOSMP) in 2015 to facilitate the management of all of the City's open space holdings. Under the GOSMP, the primary goal is to conserve and protect the functions and values of existing habitats, including vernal pool grasslands, seasonal wetlands, riparian areas, and oak woodlands within the Preserve. The GOSMP requires the preparation of annual monitoring reports to identify whether special-status species occur within the Preserve, to compare the vegetative and hydrologic condition of the Preserve to the recorded baseline conditions, and to make recommendations for active management to address potential problems including vandalism, dumping, invasive species infestations, excessive fuel buildup, and fencing issues. The purpose of the 2017-2018 annual monitoring was to continue to monitor conditions within the Preserve, identify and compare baseline conditions, and conduct special-status species surveys to document whether performance standards are being met within the Preserve.

Overall, the Preserve is in good condition and continues to provide suitable habitat for native wildlife species, including rare plant populations. Thatch accumulation was slightly higher in 2017 than 2016 indicating a need to adjust grazing pressure. The City's on-going efforts at trash removal within the Preserve, including conducting volunteer open space clean-up events, has reduced trash occurrences. However, trash accumulation is an ongoing challenge as the majority of the Preserve interfaces with public use areas such as parks, streets, and pathways. Some minor trespassing and erosion issues were observed. Listed branchiopods were found in two pools within the Stanford Ranch Preserve. Vernal pools and wetlands are functioning well providing habitat for native plant species.

1.0 PROJECT BACKGROUND

1.1. Background

The City adopted the GOSMP in May of 2015 following the approval of the GOSMP by the U.S. Army Corps of Engineers (USACE). The GOSMP allows combined management of over 588 total acres within six open space preserves. The GOSMP replaces the previous project-specific management plans for the six open space areas, including the following:

- *Orchard Creek Open Space Preserve Operations and Management Plan;*
- *Whitney Ranch (Sunset Ranchos Phase 1) Open Space Conservation Easement Operations and Management Plan;*
- *Use Plan Addendum to the Operations and Management Plan/Conservation Easement for the Stanford Ranch Open Space Preserve;*
- *Operations and Management Plan for the Claremont (Parcel K) Open Space Preserve; and*
- *General Open Space Management Plan, New Open Space Preserve Package Submittal, Brighton Subdivision.*

As discussed above, the GOSMP requires a variety of annual surveys as well as larger baseline surveys every five to ten years. Annual monitoring surveys and reporting requirements have been conducted on five of the preserves, including Claremont, Orchard Creek, Stanford Ranch, Sunset West, and Whitney Ranch since 2015. One additional open space preserve, Brighton Open Space, has been added in 2017 to the preserve areas overseen by the City and will be covered and monitored under the GOSMP (**Figure 1**).

Table 1 below identifies the Preserve areas by acreages and habitat types documented in the GOSMP (City of Rocklin 2015). A summary of these survey requirements is provided in **Section 5.1**.

TABLE 1 — PRESERVE AREA BY HABITAT TYPES

Preserve Area	Acreage	Habitat Types and Existing Conditions
Brighton Open Space	±3 acres	Riparian woodland, annual grassland, and perennial marsh.
Claremont	±15 acres	Detention basin, pond, seasonal wetlands, open grassland, native and planted oaks, and preserved rock formation.
Orchard Creek	±24 acres	Riverine seasonal wetland, vernal pool, intermittent drainage swale, and annual grassland dominated by invasive species.
Stanford Ranch	±309 acres	Annual grassland, riparian, oak woodland, vernal pool, seasonal wetland, and Pleasant Grove Creek.
Sunset West	±146 acres	Annual grassland, riparian, Pleasant Grove Creek, intermittent drainage, drainage swale, historic and created seasonal wetland, riverine wetland, and vernal pool.
Whitney Ranch	±91 acres	Annual grassland, drainages, and riparian.

1.2. Success Criteria

1.2.1. Residual Dry Matter Monitoring

The GOSMP identifies the target residual dry matter (RDM) for the Preserve as no more than 1,200 pounds (lbs.)/acre, but did not set a minimum RDM target. The typical RDM objective for California annual grassland is a RDM between 800 and 1,200 lbs./acre (Bartolome *et. al* 2006). The typical minimum RDM objective for hardwood range with 50 to 75 percent cover is 400 lbs./acre for a 20 to 40 percent slope and may be as low as 200 lbs./acre on flatter areas. Because the majority of the creek corridors within the Preserve are heavily sloped, the target RDM range for oak woodland areas was established as 400 to 1,200 lbs./acre. Areas with an RDM exceeding 1,200 lbs./acre are considered to have excess vegetation growth and higher intensity grazing or mowing practices should be implemented, while areas with an RDM below the target range for each vegetation community are overgrazed and stocking rates should be reduced.

1.2.2. Vernal Pool Monitoring

As outlined in the GOSMP, 20 percent of the vernal pools within the Preserve are surveyed twice during each monitoring year. The performance standards are outlined below.

Hydrologic Performance Standards

- Pools must be inundated for a duration that is within the range of ponding for natural vernal pools.
- Pools must hold water in a manner consistent with the normal inundation season of natural pools.

Invertebrate Performance Standards

- Wet-season invertebrate surveys are to be conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) protocol survey for listed vernal pool branchiopods, as outlined in the *Survey Guidelines for the Listed Large Branchiopods* (USFWS 2015). Two exceptions to the survey protocol are that the pools are required to be surveyed only twice during the monitoring year rather than every two weeks throughout pool inundation and only 20 percent of the vernal pools within the Preserve are required to be surveyed.

Floristic Performance Standards

- Plant species with greater than 25 percent vegetative cover are considered dominant plant species. If no plant species are greater than 25 percent relative cover in a pool, then the plant species with at least 10 percent relative cover are considered dominant plant species.
- Each vernal pool must be dominated by hydrophytic vegetation according to the methods provided in the 1987 *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratories 1987) or the Prevalence Index found in the *Food Securities Act Manual*.

2.0 MONITORING METHODOLOGY

2.1.1. General Preserve Inspections

General Preserve inspections were conducted throughout all the Preserve areas during the 2017-2018 season in combination with baseline surveys and annual monitoring tasks. General Preserve photographs were taken with a digital camera and are shown in **(Appendix A)**.

2.1.2. Invasive Species Monitoring

As part of the ongoing annual monitoring, invasive species surveys were conducted throughout all of the Preserve areas. Baseline data was collected in the fall of 2017 for the Brighton Open Space Preserve, and in the fall of 2015 for Claremont, Orchard Creek, Stanford Ranch, Sunset West, and Whitney Ranch preserves. Foothill Associates' biologists conducted ongoing monitoring between September 2017 and June 2018. Random transects spaced approximately 50 feet apart were walked throughout the Preserves to ensure total visual coverage. Locations of invasive species were recorded or updated using the ArcGIS *Collector* app for Android and iPhones. Due to limitations on the accuracy of the app and collection devices, revisiting and correctly identifying the point data collected in 2015 was extremely difficult in high-density riparian areas. Therefore, these areas were re-mapped as polygons encompassing small groups of invasive species. Single occurrences or populations of plants less than approximately 2-feet by 2-feet in size were mapped as points, and larger populations of plants were mapped as polygons. Additionally, representative site photographs were taken throughout the Preserves.

2.1.3. Vernal Pool Invertebrate Monitoring

Two wet-season surveys for listed vernal pool branchiopods were conducted in the 2017-2018 monitoring year. Surveys were conducted by Marisa Britts on January 26, February 1, 2, 6, and 7, and March 2, 5, 12, and 16, 2018. A total of 62 pools were surveyed in a total of ten Preserve areas including: Orchard Creek (OC-1), Stanford Ranch (SR-8, SR-12, and SR-20), and Sunset West (SW 1-6). All pools were surveyed twice during the season. During the first round of surveys, a total of 59 of the 62 pools were inundated at the time of the survey.

Wet-season surveys for listed vernal pool branchiopods were conducted in accordance with the USFWS 2015 *Survey Guidelines for the Listed Large Branchiopods*, with the exception that only wet-season sampling was completed and each pool was sampled twice, as required by the GOSMP. The wetlands were sampled by pulling a D-frame, 150-micron aquatic dip-net through the water column. The dip-net was undulated up and down through the water column to ensure a representative sample was obtained from each of the wetlands. A minimum of three five-foot passes were made with the dip-net in each sampled pool. No voucher specimens were collected.

The estimated number (e.g., 10s, 100s, 1,000s, etc.) of listed branchiopods along with the presence of common invertebrates, insects, and other wildlife species within each wetland was indicated on the data sheets **(Appendix B)**. Other data collected during sampling included the

wetland number, water depth, estimated maximum depth, percent of inundation, water temperature, and general habitat and weather conditions.

2.1.6. Vernal Pool Floristic Monitoring

Floristic monitoring was conducted on the same 62 pools as were surveyed for invertebrates. Monitoring was conducted on May 7, 8, 9, 11, 23, and June 4 and 12, 2018. Surveys were conducted on different dates in an attempt to best capture the peak floristic conditions of pools that were no longer inundated. Meandering transects were walked through the entire area of each pool and all observed species were recorded (**Appendix C**). Each species observed within the pool was assigned a relative cover score using the Braun-Blanquet scale from 0-5 (**Table 2**).

TABLE 2 — BRAUN BLANQUET SCALE

Scale	Relative Cover Range
0	<1%
1	1-5%
2	6-25%
3	26-50%
4	51-75%
5	>75%

2.1.7. Residual Dry Matter Monitoring

A total of 50 RDM points, including 30 in annual grassland habitat and 20 in oak woodland habitat, were established within the Claremont, Orchard Creek, Stanford Ranch, Sunset West, and Whitney Ranch Preserve areas (**Figure 2**). An additional riparian woodland point (51), was added within the Brighton Open Space Preserve. However, monitoring for this RDM point will begin during the 2018-2019 survey season. All other RDM points were sampled September 19, October 19, 23, 25, 31, and November 11, 2017.

In the fall of 2017 RDM sampling, Foothill Associates’ biologists clipped vegetation within one square-foot plots, as outlined in the *Guidelines for Residual Dry Matter on Coastal and Foothill Rangelands* (RDM Guidelines) (Bartolome *et. al* 2006). The weight of vegetation collected from the one square foot plots was used for calculation purposes (**Appendix D**). A Robel pole along with a golf ball, baseball, and basketball were placed at the RDM plot. Representative photographs were taken from each sample location at 10 feet and 20 feet from the Robel pole. During, the spring vegetative monitoring, the scientific and common name and absolute cover of all species within the 1-square-meter test plot were recorded.

2.1.8. Riparian Monitoring

Focused riparian monitoring was conducted on April 10 through June 9, 2018. The riparian areas were examined on foot to evaluate creek conditions and determine areas with restoration potential. Additionally, preserve conditions were noted during these surveys (**Figure 3**).

2.1.9. Vegetative Community Mapping

Vegetative communities were initially mapped within the Claremont, Orchard Creek, Stanford Ranch, Sunset West, and Whitney Ranch Preserves in 2015 and the Brighton Open Space Preserve in 2017 (**Figure 4**). Communities were mapped using aerial photo interpretation in ArcView 10.3. The community mapping was subsequently field checked during the other site studies and updated with the aquatic resources delineation and oak woodland information. The basic vegetative communities remain consistent with those described in the GOSMP.

2.1.10. Aquatic Resources Delineation

Aquatic resources delineations were conducted within the Preserve during the 2015-2016 survey session (**Figure 5**). Additionally, an aquatic resource delineation was conducted on the Brighton Open Space Preserve between November 10 and December 6, 2017. Wetlands were mapped in accordance with the 1987 *U.S. Army Corps of Engineers Wetland Delineation Manual*, the *Arid West Supplement*, and *Rapanos Guidelines*, with the exception that only hydrology and vegetation characteristics were used to identify wetlands. No formal 3-parameter data points were collected nor was an updated aquatic delineation submitted as there was only a slight shift to the previously mapped features mapped by ECORP Consulting, Inc. in 2014. The top of bank was used to delineate the ordinary high-water mark (OHWM) of drainages. Wetland boundaries were collected using handheld Trimble GeoXT global positioning system (GPS) units with sub-meter accuracy.

Following the completion of the field mapping, the GPS data were downloaded from the units and differentially corrected utilizing Trimble Pathfinder Office software and appropriate base station data, and then converted to ESRI® shape file format. Data were exported to the Geographic Information System (GIS) software in the State Plane coordinate system (NAD 83) with units as "survey feet." Within the GIS, data are edited and linear features are built into polygons using recorded width information. All wetland shape files are merged to create a single wetland file with calculated acreages. These files were merged with existing GIS files provided by the City.

2.1.11. Oak Woodland Monitoring

Oak woodlands were initially mapped within the Claremont, Orchard Creek, Stanford Ranch, Sunset West, and Whitney Ranch Preserves in 2015 and within the Brighton Open Space Preserve in 2017 (**Figure 6**). Oak trees and oak woodland habitat within the Brighton Open Space Preserve was systematically surveyed on foot by ISA-Certified Arborists Charlotte Marks (WE-10519A) on November 29, 30, and December 6, 2017. All existing oak trees were closely examined to determine their species type and diameter at breast height (DBH). A diameter tape or calipers were used to verify each trunk diameter at the industry standard of 54 inches above grade. The measurement from the trunk to the end of the longest lateral limb was used as the dripline radius (DLR). Recommendations for removal or suitability for preservation were noted for each tree. All trees measuring greater than 6-inches in DBH were inventoried and tagged with pre-printed aluminum tags. All trees measuring less than 6-inches in DBH, but 3-feet or greater in height were mapped as points or polygons mapping the extent of DLR for each tree

or group of trees. Single trees or groups of trees in areas less than 3-feet by 3-feet were mapped as points. These were classified as oak canopy based on the dominant oak species. The locations of the tagged trees were recorded with handheld GPS units.

The health and structural condition of each tree was rated according to **Table 3** below. The health rating considers factors such as the size, color, and density of the foliage; the amount of deadwood within the canopy; bud viability; evidence of wound closure; and the presence or evidence of stress, disease, nutrient deficiency, and/or insect infestation. The structural rating reflects the trunk and branch configuration; canopy balance; the presence of included bark and other structural defects such as decay; and the potential for structural failure. In cases where conditions fall between the Good, Fair, and Poor ratings, intermediate ratings of Fair-Good and Fair-Poor were used.

TABLE 3 — TREE RATING SYSTEM

Rating	Tree Health
Good	There is an average or below-average amount of deadwood/dieback with respect to the tree’s size and growing environment; leaf size, color, and density are typical for the species; buds are normal size, viable, abundant, and uniform throughout the canopy; current and past growth increments are generally average or better; any callusing is vigorous. This health rating indicates that there is very little, if any, evidence of stress, disease, nutrient deficiency, and/or insect infestation.
Fair	There is an above-average amount of deadwood/dieback with respect to the tree’s size and growing environment; leaf size, color, and density may be below what is typically expected for the species; buds are normal size and viable, but slightly sparse throughout the canopy; current and past growth increments may be below average; tree may be slow to callus around old wounds. This health rating indicates that there is moderate evidence of stress, disease, nutrient deficiency, and/or insect infestation.
Poor	There is an extreme amount of deadwood/dieback with respect to the tree’s size and growing environment; leaf size, color, and density are clearly compromised; very few viable buds are present throughout the canopy; current and past growth increments are meager; no evidence of callusing around old wounds. This health rating indicates that there is widespread evidence of stress, disease, nutrient deficiency, and/or insect infestation.
	Tree Structure
Good	No wounds, cavities, decay, or indication of hollowness are evident in the root crown, trunk, or primary and secondary limbs; no anchor roots are exposed; no codominant branching or multiple trunk attachments are present; very little included bark at branch attachments exists; no dead primary or secondary limbs are present in canopy; there have been no major limb failures; limbs are not overburdened; branching structure is appropriate for species; any decay is limited to small dead branches/stubs. This structure rating represents a low potential for failure.
Fair	With respect to the size of the tree, small to moderate wounds, cavities, decay, and indication of hollowness may be evident in the root crown, trunk, and/or primary and secondary limbs; some anchor roots may be exposed; codominant branching or multiple trunk attachments may be present, but included bark does not exist or is not well developed; minor to moderate amounts of included bark at branch attachments may exist; there may be small to moderate amounts of large dead limbs in canopy, but there is no evidence of large limb failures; limbs may be slightly overburdened; branching structure and/or canopy balance may be moderately altered by the tree’s growing environment. This structure rating represents a moderate potential for failure.
Poor	With respect to the size of the tree, significant wounds, cavities, decay, and/or indication of hollowness may be evident in the root crown, trunk, and/or primary and secondary limbs; anchor roots may be exposed and/or the tree may have lost anchorage; codominant branching or multiple trunk attachments may be present; significant amounts of included bark may exist in trunk and branch attachments; there may be significant amounts of large dead limbs in the canopy; there may be evidence of trunk or large limb failures; limbs may be severely overburdened; branching structure and/or canopy balance may be drastically altered by the tree’s growing environment. This structure rating represents a high potential for failure.

3.0 BASELINE STUDY RESULTS

3.1. Vegetative Communities Mapping

Based on information collected during the aquatic resources delineation, oak woodland inventory, and aerial photo interpretation (Google Earth 2018), a vegetative communities map was developed for the Brighton Open Space Preserve (**Figure 4**). A total of ten vegetation communities were mapped with the Brighton Open Space Preserve. **Table 4** below summarizes the vegetative community types and total acreages, and each vegetative community is described in more detail below.

TABLE 4 — VEGETATIVE COMMUNITY ACREAGES FOR BRIGHTON OPEN SPACE PRESERVE

Vegetative Community	Acres
Annual Grassland	0.01
Depressional Seasonal Marsh	0.02
Depressional Seasonal Wetland	<0.01
Disturbed/Landscaped	0.39
Ephemeral Drainage	<0.01
Riparian Woodland	1.71
Perennial Drainage	0.07
Riverine Perennial Marsh	0.50
Riverine Seasonal Swale	0.22
Riverine Seasonal Wetland	0.01
Total	2.94

3.1.1. Annual Grassland

A total of 0.01 acres of annual grassland habitat was mapped in the northern portion of the Brighton Open Space Preserve. Dominant vegetation within the annual grassland includes: ryegrass (*Festuca perennis*), medusahead (*Elymus caput-medusae*), riggut brome (*Bromus diandrus*), soft chess brome (*Bromus hordeaceus*), oat (*Avena* sp.), rose clover (*Trifolium hirtum*), vetch (*Vicia* sp.), black mustard (*Brassica nigra*), bull thistle (*Cirsium vulgare*), wild radish (*Raphanus sativus*), and summer mustard (*Hirschfeldia incana*).

3.1.2. Depressional Seasonal Marsh

A total of 0.02 acres of depressional seasonal marsh was mapped in the western portion of the Brighton Open Space Preserve. The depressional seasonal marsh is located in a section of low-lying-land that may stay inundated throughout the year. Dominant vegetation within this community includes: cattail (*Typha* sp.), Pacific rush (*Juncus effusus* ssp. *pacificus*), and hydrilla (*Hydrilla verticillata*). In addition, depressional seasonal marshes are considered waters of the U.S.

3.1.3. Depressional Seasonal Wetland

Less than 0.01 acres of depressional seasonal wetland was mapped in the northern portion of the Brighton Open Space Preserve. Depressional seasonal wetlands occur as depressions within the topography with a hydrologic regime dominated by saturation and capable of supporting hydrophytic plant species and hydric soils. Dominant vegetation within this community includes: sandbar willow (*Salix laevigata*) and red willow (*Salix laevigata*). In addition, depressional seasonal wetlands are considered waters of the U.S.

3.1.4. Disturbed/Landscaped

A total of 0.39 acres of disturbed/landscaped areas were mapped within the northern portion of the Brighton Open Space Preserve. This area transects the Preserve east to west and is sparsely vegetated. Landscaping canopy associated with new development adjacent to the Preserve is located in the south and southeast portion of the Preserve.

3.1.5. Ephemeral Drainage

Less than 0.01 acres of ephemeral drainages were mapped throughout the Brighton Open Space Preserve primarily associated with culvert outfalls. Ephemeral drainages are primarily fed by storm water runoff. These features convey flows during and immediately after storm events but may stop flowing or begin to dry if the interval between storm events is long enough. In addition, ephemeral drainages are considered waters of the U.S.

3.1.6. Riparian Woodland

A total of 1.71 acres of riparian woodland were mapped throughout the Brighton Open Space Preserve. Riparian woodlands support a relatively dense vegetation cover comprised mainly of riparian tree and shrub species. Riparian woodlands typically occur adjacent to perennial, flowing features such as creeks and streams. Dominant overstory vegetation within this community includes: willow (*Salix* sp.), interior live oak (*Quercus wislizenii*), valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), and Fremont cottonwood (*Populus fremontii*). Dominant understory vegetation includes Himalayan blackberry (*Rubus armeniacus*), curly dock (*Rumex crispus*), coyote brush (*Baccharis pilularis*), and poison oak (*Toxicodendron diversilobum*).

Several aquatic features occur within the riparian woodland community including: Sucker Ravine (perennial drainage) to the north, depressional seasonal wetlands, depressional seasonal swale, and a riverine seasonal wetland.

3.1.7. Perennial Drainage

A total of 0.07 acres of perennial drainage (Sucker Ravine) were mapped along the northern boundary of the Brighton Open Space Preserve. Plant species observed in Sucker Ravine include tall flatsedge (*Cyperus eragrostis*), dallisgrass (*Paspalum dilatatum*), common smartweed (*Persicaria hydropiper*), and Brazilian watermilfoil (*Myriophyllum aquaticum*). Sucker Ravine is surrounded by riparian woodland. In addition, perennial drainages are considered waters of the U.S.

3.1.8. Riverine Perennial Marsh

A total of 0.50 acres of riverine perennial marsh were mapped in the central portion of the Brighton Open Space Preserve. Dominant vegetation within this community includes: waterpepper (*Persicaria hydropiper*), cattail, Pacific rush (*Juncus effusus* ssp. *pacificus*), and hydrilla. In addition, riverine marshes are considered waters of the U.S.

3.1.9. Riverine Seasonal Swale

A total of 0.22 acres of riverine seasonal swale were mapped in the central eastern portion of the Brighton Open Space Preserve. Dominant vegetation observed within this feature includes Himalayan blackberry and tall flatsedge. In addition, riverine seasonal swales are considered waters of the U.S.

3.1.10. Riverine Seasonal Wetland

A total of 0.01 acres of riverine seasonal wetland were mapped in the central western portion of the Brighton Open Space Preserve. Dominant vegetation observed within this feature includes Himalayan blackberry, rush (*Juncus* sp.), and Canada horseweed (*Erigeron canadensis*). In addition, riverine seasonal wetlands are considered waters of the U.S.

3.2. Aquatic Resources Delineation

A total of 0.82 acres of aquatic features were delineated in the Brighton Open Space Preserve including: depressional seasonal wetland, depressional seasonal marsh, riverine seasonal wetland, riverine seasonal swale, riverine perennial marsh, perennial drainage (Sucker Ravine), and ephemeral drainage. All aquatic features mapped within the Brighton Open Space Preserve are depicted on **Figure 7**. **Table 5** summarizes the wetland types and total acreages.

TABLE 5 — WETLAND ACREAGES FOR THE BRIGHTON OPEN SPACE PRESERVE

Wetland Type	Acres
Depressional Seasonal Wetland	<0.01
Depressional Seasonal Marsh	0.02
Riverine Seasonal Wetland	0.01
Riverine Seasonal Swale	0.22
Riverine Perennial Marsh	0.50
Perennial Drainage (Sucker Ravine)	0.07
Ephemeral Drainage	<0.01
Total	0.82

3.3. Oak Woodland Inventory

A total of 106 oak trees were inventoried in the Brighton Open Space Preserve. These include: 65 interior live oaks, 35 valley oaks, and 6 blue oaks. Additionally, 0.356 acres of oak woodland canopy formed by trees with trunks smaller than 6-inches DBH were mapped. Tree locations and oak woodland canopy mapped within the Preserve are depicted on **Figure 6**.

In general, the inventoried trees are in Fair health with respect to tree vigor and live canopy density. **Table 6** identifies the number of surveyed trees by health and structure ratings. The data collected for each inventoried tree is provided in **Appendix E**.

TABLE 6 — NUMBER OF TREES BY HEALTH AND STRUCTURE RATINGS

		Health					
Structure		Good	Fair-Good	Fair	Poor-Fair	Poor	Total Trees
	Good	0	0	0	0	0	0
	Fair-Good	0	7	0	0	0	7
	Fair	0	17	55	1	0	73
	Poor-Fair	0	3	18	1	1	23
	Poor	0	0	1	1	1	3
	Total Trees	0	27	74	3	2	106

4.0 ANNUAL MONITORING RESULTS

4.1. *Special-Status Plant Species*

Although the GOSMP identifies six (6) special-status plant species with the potential to occur in the Preserve, five (5) of the species are associated with gabbro or serpentine soils that are not known from the Rocklin area and include: Stebbin's morning-glory (*Calystegia stebbinsii*), Pine Hill ceanothus (*Ceanothus roderickii*), El Dorado bedstraw (*Galium californicum* ssp. *sierrae*), Tahoe yellow-cress (*Rorippa subumbellata*), and Layne's butterweed (=ragwort) (*Packera layneae*).

The sixth species listed in the GOSMP, Sacramento Orcutt grass (*Orcuttia viscidia*) has the potential to occur within the Preserve. Prior to the start of the survey session queries for rare and endangered plants were run pertaining to the natural resources of the region. All references reviewed for this assessment are listed in the **References** section including the California Natural Diversity Database (CNDDDB). The CNDDDB is an inventory of the status and location of rare plants and animals in California. Additionally, the California Native Plant Society (CNPS) ranking system was referenced. CNPS maintains a rank of plant species native to California that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the *Inventory of Rare and Endangered Vascular Plants of California*. Potential impacts to populations of CNPS-ranked plants receive consideration under the California Environmental Quality Act (CEQA) review. The following identifies the definitions of the CNPS ranks:

- Rank 1A: Plants presumed Extinct in California
- Rank 1B: Plants Rare, Threatened, or Endangered in California and elsewhere
- Rank 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere
- Rank 3: Plants about which we need more information – A Review List
- Rank 4: Plants of limited distribution – A Watch List

4.1.1. Updated Rare Plant Inventory

Upon review of the above-referenced databases, 13 special-status plant species have the potential to occur within the region. These species include: big-scale balsamroot (*Balsamorhiza macrolepis*), hispid bird's-beak (*Cordylanthus mollis* ssp. *hispidus*), Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeae*), dwarf downingia (*Downingia pusilla*), stinkbells (*Fritillaria agrestis*), Boggs Lake hedge-hyssop (*Gnaphalium heterosepala*), Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*), legenere (*Legenere limosa*), pincushion navarretia (*Navarretia myersii* ssp. *myersii*), adobe navarretia (*Navarretia nigelliformis* ssp. *nigelliformis*), and Sanford's arrowhead (*Sagittaria sanfordii*). The GOSMP lists Sacramento Orcutt grass as one of the potential species to occur within the region, this species also was on the updated species list.

4.1.2. Special-Status Plant Occurrence

Hispid bird's-beak, a California rare plant with a CNPS rank of 1B.1 was observed in Stanford Ranch Preserve (SR- 12) within the alkali sink. Plants with a California Rare Plant Rank of 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. All of the plants constituting California Rare Plant Rank 1B meet the definition of an endangered species under the California Endangered Species Act (CESA) of the California Department of Fish and Game Code.

Mapping of the hispid bird's-beak took place on June 14, 2018 (**Figure 8**) in Stanford Ranch (SR-12). Section 2.7 of the GOSMP states that a listed species will be recorded with the State of California for inclusion in the CNDDDB. Submittals of all listed species occurrences will take place in the winter of 2018.

4.1.3. Special-Status Wildlife Species

The GOSMP identifies 14 special-status wildlife species to be considered during Preserve management. However, Rocklin is outside the range of five of these species: California tiger salamander (*Ambystoma californiense*; CTS), California red-legged frog (*Rana draytonii*; CRLF), delta smelt (*Hypomesus tranpacificus*), Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*), and fisher (*Martes pennanti*). Therefore, focused wildlife surveys were not conducted within the Preserve during the 2017-2018 monitoring year for these species.

The remaining nine species have the potential to occur within the Preserve include: western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), Central Valley steelhead (*Oncorhynchus mykiss*), Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*), Central Valley winter-run Chinook salmon (*Oncorhynchus tshawytscha*), Conservancy fairy shrimp (*Branchinecta conservatio*), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*; VELB). In addition, the Preserve provides habitat for Swainson's hawk (*Buteo swainsoni*), burrowing owl (*Athene cunicularia*), western pond turtle (*Actinemys marmorata*), and giant garter snake (*Thamnophis gigas*; GGS).

Focused special-status wildlife surveys were conducted during 2017-2018 monitoring year. Vernal pool fairy shrimp were found in a total of two pools located in Sunset West, (SW-1 and SW-2) and western pond turtles were observed in Sunset West (SW-2) and Stanford Ranch (SR-8). Although no burrowing owls were observed during the focused survey, the Preserve provides habitat for this species and this species will continue to be included in subsequent wildlife surveys. Submittals of all special-status species occurrences will take place in the winter of 2018.

4.1.4. Valley Elderberry Longhorn Beetle

Elderberry shrubs located in riparian areas are potential habitat for VELB, a federally-listed threatened species. Protocol-level surveys were conducted for VELB during on March 2, 6, and May 8, 9, and 23, 2018. Additionally, biologists marked any additional elderberry shrubs that

were not noted during previous annual monitoring surveys. No VELB were observed during the 2017-2018 surveys; however, two elderberry shrubs in Stanford Ranch (SR-15) contain potential exit holes created by VELB (**Figure 9**).

Annual monitoring tasks are required throughout the year to ensure that the Preserve continues to protect the functions and values of existing habitats, including vernal pool grasslands, seasonal wetlands, riparian areas, and oak woodlands, in accordance with the GOSMP. This includes invasive species mapping, vernal pool monitoring, RDM monitoring, wetland and riparian monitoring, and general Preserve condition monitoring. A complete list of plants and wildlife observed during the 2017-2018 annual monitoring is included in **Appendix F**. Representative photographs are provided in **Appendix A**.

4.2. Invasive Species Mapping

In total, 20 invasive plant species were inventoried in the Preserve. Similar to 2016, emphasis was placed on monitoring species considered a high priority for control. High priority plants are those that are the most likely to quickly develop into monocultures, which provide poor habitat and exclude more desirable plant species. The locations of invasive species are shown in **Figure 10**. A list of all invasive plants inventoried in the Preserve and their approximate acreages are shown below in **Table 7**.

TABLE 7 — INVASIVE SPECIES OCCURRENCES

Species	Scientific Name	Cal-IPC Ranking	Approximate Acreage 2017	Approximate Acreage 2016	Approximate Acreage 2015*	No. of Occurrences 2017	No. of Occurrences 2016	No. of Occurrences 2015
High Priority Species								
Black Mustard	<i>Brassica nigra</i>	Moderate	<0.1	<0.1	0.3	9	2	27
Bull Thistle	<i>Cirsium vulgare</i>	Moderate	0.3	0.3	0.3	13	8	22
Italian Thistle	<i>Carduus pycnocephalus</i>	Moderate	1.1	0.5	0.6	39	12	51
Milk Thistle	<i>Silybum marianum</i>	Limited	0.3	0.5	0.9	13	7	31
Pampas Grass	<i>Cortaderia selloana</i> or <i>C. jubata</i>	High	<0.1	<0.1	<0.1	3	8	13
Water Hyacinth	<i>Eichhornia crassipes</i>	High	<0.1	0.2	<0.1	1	3	1
Yellow Star-Thistle	<i>Centaurea solstitialis</i>	High	25.9	20.1	23.3	248	140	396
Woody/ Shrub Species								
Black Locust	<i>Robinia pseudoacacia</i>	Limited	<0.1	<0.1	<0.1	2	4	4
Callery Pear	<i>Pyrus calleryana</i>	Watchlist	0.95	1.2	0.1	68	104	124
Chinese Tallow	<i>Triadica sebifera</i>	Moderate	19.1	23.8	2.1	200	401	1,084
Common Fig/Edible Fig	<i>Ficus carica</i>	Moderate	2.6	2.9	0.1	35	49	99
Eucalyptus	<i>Eucalyptus</i> sp.	Limited	<0.1	<0.1	<0.1	5	6	1
Himalayan Blackberry	<i>Rubus armeniacus</i>	High	4.9	6.9	2.7	98	122	86
Tree of Heaven	<i>Ailanthus altissima</i>	Moderate	<0.1	0.1	0.1	6	23	69
Other Grass/ Herb Species								
Bristly Ox-tongue	<i>Helminthotheca echioides</i>	Limited	0.23	<0.1	<0.1	4	1	1
Curly Dock	<i>Rumex crispus</i>	Limited	0.2	0.2	0.2	10	11	29
Rose Clover	<i>Trifolium hirtum</i>	Limited	<0.1	<0.1	N/A	N/A	1	N/A
Medusa head Grass	<i>Elymus caput-medusae</i>	High	<0.1	<0.1	N/A	N/A	1	N/A
Stinkwort	<i>Dittrichia graveolens</i>	Moderate	4.2	3.7	2.0	47	50	70

*Acreage in 2015 based on mapped areas and assumption of 50 square feet per point occurrence for woody plants.

In total, approximately 60 acres of invasive species (~10% of the total Preserve area) were mapped as having some degree of invasive plant species in 2017-2018. The most widespread invasive species within the Preserve are yellow star-thistle, which was present in over 25 acres of Preserve and is found mostly in annual grassland areas, and Chinese tallow, which was present in over 19 acres in the Preserve. This is consistent with the baseline data collected in 2015, where these two species were the most commonly observed. There is slight increase of approximately five acres in the size of the yellow star-thistle population. It should be noted that although the total number of acres of invasive species mapped has doubled from 2015, this change is due mostly to the change in data collection methodology rather than a true increase in invasive species coverage. The mapping methodology for most woody species changed from using point data in 2015 to polygon data in 2016 and 2017. The result is that the 2017 data reflects the actual canopy coverage of the occurrence, rather than an assumed dimension of 50 ft² (~7' x 7') per point that was used in 2015. The 2017 mapping presents a more accurate representation of the actual extent of invasive species in the Preserve. The largest increases in areas of invasive species were observed with Chinese tallow, Himalayan blackberry, and common fig. These increases in acreage are due to the expanded distribution of these species since the last annual monitoring. The most common invasive species remain the same this year as last year. Recommended techniques for removal and control are summarized below in **Table 8** below.

TABLE 8 — SUMMARY OF INVASIVE SPECIES CONTROL TECHNIQUES

Species Description	Control Concerns	Removal Techniques
<i>Chinese Tallow Tree</i>		
Fast-growing tree that was originally planted as an ornamental plant, but has escaped from cultivation. Found along drainages in multiple OSP sections.	<ul style="list-style-type: none"> • Seeds are spread by birds and water, so treatment should begin at the upper ends of drainages, if possible, to minimize the recolonization in downstream areas. • Chinese tallow trees re-sprout easily, so treatment over multiple years may be required. 	<ul style="list-style-type: none"> • Cut tree and treat stump with herbicide; optimally cutting should be done in July to early August during seed formation. • Hand pulling of small saplings and girdling of large trees.
<i>Yellow Star-Thistle</i>		
A perennial herb that is well-established throughout the state. Particularly prevalent in road right-of-way's and along utility access roads in the Preserves. Found in annual grassland habitat in Preserve areas.	<ul style="list-style-type: none"> • Often requires management over a number of years to eliminate. • Yellow star-thistle seedlings are sensitive to shading, therefore establishing a new cover of desired plants, such as perennial bunchgrasses and forbs is necessary for long-term management. • Re-infestation from adjacent undeveloped properties and the Highway 65 corridor is likely. 	<ul style="list-style-type: none"> • Grazing or mowing in late May and June during the spiny and early flower stage to reduce seed heads. Sheep are effective earlier in the spring during the bolting phase, but goats are more effective later in the season when the plant has entered the spiny stage. • Apply targeted pre- and post-emergent herbicides aminopyralid or clopyralid between January and March for season-long control.

Species Description	Control Concerns	Removal Techniques
	<ul style="list-style-type: none"> Focus treatment on small populations or where re-infestation risk is low: Claremont, Whitney Ranch, Stanford Ranch, and western Sunset West. 	
Himalayan Blackberry		
Woody vine that can spread up to 30 feet. Typically found along riparian areas in Preserve areas.	<ul style="list-style-type: none"> Often re-sprouts from vegetative fragments left behind. Sensitive to shade, so planting treated areas with fast-growing native shrubs may reduce re-establishment. 	<ul style="list-style-type: none"> Mechanical removal by repeated mowing or cutting often followed by digging out the rootstock. Goats browse on Himalayan blackberry and can be effective at reducing and controlling this plant.
Pampas Grass		
A large clumping grass with sharp leaf edges. Observed in Preserve areas SW-3, SR-6, SR-8, SR-15, SR-17, and WR-3.	<ul style="list-style-type: none"> Seeds spread on water or by wind. Can re-sprout from fragments of cane or root crown. 	<ul style="list-style-type: none"> Cut the top and then either dig out the root crown or treat with a glyphosphate herbicide. Best removed before flowering to prevent spread of seeds during removal.
Water Hyacinth		
Aquatic plant with purple flowers. Found in SW-2.	<ul style="list-style-type: none"> Grows rapidly and colonizes downstream areas as sections of the plant break off in storms 	<ul style="list-style-type: none"> Apply glyphosphate herbicides to the leaves. If physical removal is used, remove all fragments from water and banks.

The City has purchased an “EZ-Ject” Lance, an herbicide injection tool, to aid in their efforts of invasive species removal and control. In 2016-2017, a total of 158 Chinese tallow trees were treated, with 150 being in the Stanford Ranch Preserve area and eight in the Claremont Preserve area. Unless the tree represents a hazard should it eventually fall, the treated trees remain in place to serve as habitat as they succumb to the herbicide treatment. During the 2017-2018 survey, numerous fallen trees were observed as well as treated trees that were still standing. No hazards due to fallen trees were observed, although the City did remove one dead Chinese tallow tree that was considered a hazard due its proximity to a residence and their fence.

4.3. Vernal Pool Monitoring

4.3.1. Invertebrate and Hydrological Monitoring

A total of 62 vernal pools were sampled within the Preserves (**Figure 11**). Of these pools 50 percent were newly surveyed for the 2017-2018 survey season and 50 percent were from the previously assigned pools from the previous years of surveys. **Table 9**, summarizes the sampled

vernal pools and indicates what pools were newly surveyed and what pools were previously sampled.

TABLE 9 — SUMMARY OF SAMPLE VERNAL POOLS

Preserve Sub-Section	Number of Sampled Pools	Previously Sampled Vernal Pool ID Numbers	Newly Sampled Vernal Pools in 2018 ID Numbers
OC-1	4	1-2	63-64
SR-8	16	18-21, 27, 30, 31, 33	146, 153, 165, 280, 281, 291, 292, 305
SR-12	9	5, 10-12	138, 141, 190, 193, 196
SR-20	2	15	256
SW-1	20	34, 35, 37, 38, 41, 42, 46-49	75, 76, 80, 102, 105, 107, 212, 216, 229, 242
SW-2	2	55	131
SW-3	4	57-58	118-119
SW-4	1	60	—
SW-5	2	—	248-249
SW-6	2	62	262
Total	62	31	31

During the first round of surveys, a total of 59 of the 62 pools were inundated at the time of the survey. Vernal pool fairy shrimp were found in a total of two pools located in Sunset West, (SW-1 pool #102 and SW-2, pool #55). California linderiella (*Linderiella occidentalis*) were observed in two pools in Stanford Ranch (SR-12 pool #190 and pool #193) (**Figure 12**).

During the second round of surveys the same 62 pools were surveyed. A total of 49 of the 62 pools were inundated at the time of the second survey. Vernal pool fairy shrimp were found in one pool located in Sunset West (SW-1). California linderiella were again observed in Stanford Ranch (SR-12) during the second survey, as shown below in **Table 10**.

TABLE 10 — VERNAL POOL SAMPLE RESULTS

Preserve Sub-Section	Vernal Pool Fairy Shrimp Vernal Pool ID Number	California Linderiella Vernal Pool ID Number
SW-1	102	None
SW-2	55	None
SR-12	None	190, 193
Total	2	2

Other non-listed aquatic invertebrates observed during surveys included: water fleas (Cladocera), copepods (Copepoda), seed shrimp (Ostracoda), flatworms (Turbellaria), diving water beetles (Dytiscidae), midges (Chironomidae), and crawling water beetles (Halipidae). Representative site photographs and invertebrate sampling data sheets are included in **Appendices A and B**, respectively.

The estimated maximum depth of all of the pools ranged from 1 to 16 inches (2.5 to 41 centimeters) and the total percent inundation ranged from 0 to 100 percent. Overall, the vernal pools within the Preserve exhibit hydrology typical of vernal pools within the Central Valley. Hydrologic data is included on the invertebrate sampling data sheets in **Appendix B**.

4.3.2. Vernal Pool Floristic Monitoring

Four vernal pool plant species were recorded in at least 75 percent of the sampled pools within the Orchard Creek Preserve, these include: common spikerush (*Eleocharis macrostachya*), coyote thistle (*Eryngium vaseyi*), Italian rye grass (*Festuca perennis*), and stalked popcornflower (*Plagiobothrys stipitatus*). Three species were recorded in at least 75 percent of the pools sampled in Sunset West Preserve and include: common spikerush, coyote thistle, and stalked popcornflower. Locations of surveyed pools are shown in **Figure 11**.

Vernal pools having a Prevalence Index of 3 or less indicate that they are dominated by hydrophytic vegetation. All four pools surveyed on Orchard Creek meet the floristics performance standard (100%). All 27 pools (100%) surveyed on Stanford Ranch meet the floristics performance standard. Twenty-nine of the 31 vernal pools (94%) surveyed on Sunset West meet the floristics performance standard. Of the combined 62 pools surveyed within the Preserves, 60 pools have a Prevalence Index of 3 or less. Therefore, 97 percent of the pools meet the performance standards. Overall, the floristics within the vernal pools exhibit similar hydrophytic plant species typical of vernal pools within the Central Valley. Vernal pool floristic data sheets are included in **Appendix C** of this report.

4.4. Residual Dry Matter and Vegetative Monitoring

A total of 50 RDM points were sampled on September 19, October 19, 23, 25, and 31, and November 11, 2017. Approximately 60 percent of the vegetative community in the Preserves is annual grassland, which is dominated by non-native annual grasses such as wild oat, ryegrass, barley (*Hordeum marinum*), brome (*Bromus* sp.), wild rye (*Elymus* sp.), and medusahead.

Oak and riparian woodlands make up approximately 24 percent of the habitat in the Preserves and are dominated by a variety of native species including: blue oak, valley oak, and interior live oak, with willows and Fremont cottonwoods in riparian areas. The Claremont, Orchard Creek, and Whitney Ranch Preserves consist primarily of annual grasslands. The Stanford Ranch and Sunset West Preserves contain both annual grassland and woodland habitats.

RDM falls within the target range at six percent (6%) of the sampled locations within the annual grassland and five percent (5%) within the oak woodland, a combined 11 percent (11%). Within the annual grasslands, RDM exceeds the target RDM range at 88 percent (88%) and falls below the target RDM range at six percent (6%). RDM within the oak woodlands exceeds the target RDM range at 95 percent (95%) of the sampled locations. The overall RDM numbers throughout the Preserve exceed the objective of 1,200 lbs./acre, therefore, grazing pressure should be increased in most areas in 2018-2019. **Table 11** and **Table 12**, below, summarize the RDM data for each of the five Preserve areas by vegetation community. RDM datasheets are enclosed in **Appendix D** and representative photographs are included in **Appendix A**.

TABLE 11 — SUMMARY OF RDM DATA IN ANNUAL GRASSLANDS

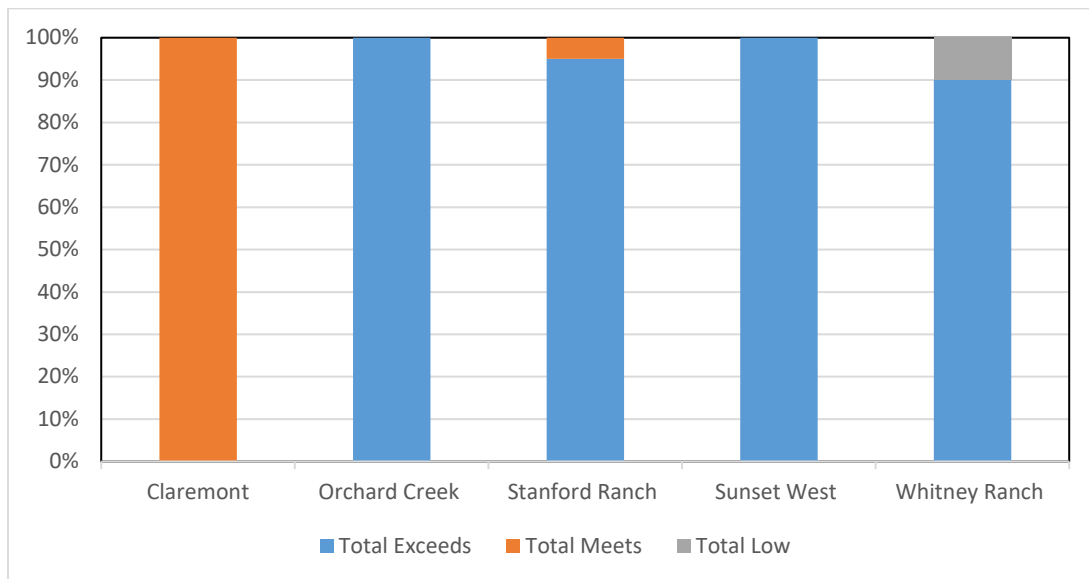
Preserve	Total RDM Points	RDM Range (lbs. / acre)	Exceeds Objective >1,200 lbs./acre	Meets Objective 800-1,200 lbs./acre	Below Objective <800 lbs./acre
Claremont	1	768	—	100% (1)	—
Orchard Creek	2	2,208-2,340	100% (2)	—	—
Stanford Ranch	11	1,152-6,624	90% (10)	10% (1)	—
Sunset West	7	1,248-4,224	100% (7)	—	—
Whitney Ranch	9	672-2,880	78% (7)	—	22% (2)
Total	30	768-4,224	88% (26)	6% (2)	6% (2)

TABLE 12 — SUMMARY OF RDM DATA IN OAK WOODLANDS

Preserve	Total RDM Points	RDM Range (lbs. / acre)	Exceeds Objective >1,200 lbs./acre	Meets Objective 400-1,200 lbs./acre	Below Objective <400 lbs./acre
Claremont	1	864	—	100% (1)	—
Stanford Ranch	15	1,152-3,648	100% (15)	—	—
Sunset West	3	1,248-1,824	100% (3)	—	—
Whitney Ranch	1	5,962	100% (1)	—	—
Total	20	864-5,962	95% (19)	5% (1)	0%

As shown below in **Chart 1**, the majority of the Preserves exceed the target RDM range. This is likely the result of secondary growth and early grazing. Additionally, RDM sample location 51 was established in the Brighton Open Space Preserve; however, fall monitoring will begin in the 2018-2019 survey season.

CHART 1 — SUMMARY OF RDM RESULTS



4.5. *Wetland and Riparian Monitoring*

Riparian monitoring was conducted throughout the year. The riparian areas were examined on foot to evaluate creek conditions and determine areas with restoration potential. Overall, the wetlands and riparian areas are in fair condition throughout the Preserves.

Vegetation clearing along waterways took place in portions of Stanford Ranch (SR-15 and SR-3).

Two beaver dams were observed in two Preserve areas. Beaver activity was observed in the western portion of Sunset West (SW-1) and the northern portion of Stanford Ranch (SR-8). Monitoring of the dams will continue, currently they are not negatively impacting the waterways.

The greatest threats to the riparian habitat include invasive species. **Figure 10** shows the extent of invasive species identified within the Preserve, which represents potential restoration and rehabilitation sites. Primary invasive species impacting culverts and waterways include: edible fig, Himalayan blackberry, and Chinese tallow saplings and trees.

4.6. *Preserve Conditions and General Surveys*

There were limited areas of trash, generally located along roadways, adjacent to schools, windblown trash from adjacent construction sites, and along the perimeter of residential lots. No significant areas of dumping or toxic chemical spills were observed. Evidence of trespassing was observed in several areas and cut or rusted locks on gates were noted. The City was notified of these locations and replacement locks were installed. Additionally, areas of downed fencing, erosion, an accidentally hydroseeded vernal pool, and problematic footpaths are shown on **Figure 3**. Areas of trash build-up or trespassing were reported to the City on a regular basis and cleaned up by City staff or volunteers. From July 2017 to July 2018, City staff led 11 volunteer trash clean up events that involved over 122 people and resulted in the collection of 89 bags of trash.

4.7. *Wildlife Observations*

In total, over 30 wildlife species were observed in the Preserve including: western pond turtle, ring-necked pheasant (*Phasianus colchicus*), great egret (*Ardea alba*), belted kingfisher (*Megaceryle alcyon*), and California king snake (*Lampropeltis getula californiae*). A complete list of wildlife species observed in the Preserve is included in **Appendix F**.

The federally-listed vernal pool fairy shrimp and the non-listed California linderiella were found in pools within the Sunset West and Stanford Ranch preserves. Vernal pool fairy shrimp were found in a total of two pools located in Sunset West, (SW-1 and SW-2). California linderiella were observed in two pools (#190 and #193) in Stanford Ranch (SR-12). No other State or federally-listed branchiopods were observed in any of the sampled pools; however, a number of other non-listed aquatic invertebrates were observed in the vast majority of sampled pools.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Overall, the Preserve was in good condition during the 2017-2018 monitoring year. The monitored vernal pools met or exceeded the performance standards with limited exception of two vernal pools within Sunset West. Additionally, two pools supported populations of vernal pool fairy shrimp.

5.1. Recommendations

Invasive species only occur in approximately 10% of the total Preserve area and the City has been targeting the control of Chinese tallow because it is the second most widespread invasive species in the Preserve and it has been increasing in area. In 2018-2019, monitoring will continue in accordance with the City's GOSMP. The following recommendations for the Preserve include:

- Continue regular trash pick-up within the individual Preserve areas.
- Target invasive species to maintain current extent and approximate number of invasive species within Preserve. Conduct focused control of invasive species where appropriate.
 - Implement high-intensity short duration grazing by sheep, goats, or cattle for yellow star-thistle. Grazing should take place prior to the formation of spines, ideally late spring to early summer (May through June). Consider treating these areas with targeted herbicides between January and March. Potentially seed with native plants next winter to help establish a cover crop to compete with yellow star-thistle. Monitor and adjust control techniques in future years depending on their success in reducing the yellow star-thistle populations. Select areas (such as OC-1, WR-2, WR-3, WR-5, SR-12 to SR-16, SW-4, SW-6 and SW-8) for targeted yellow star-thistle control. Once a successful eradication protocol has been determined, it can be used on other areas of the Preserve that are more prone to re-infestation from adjacent open space areas;
 - Continue application of "EZ-Ject" Lance to control Chinese tallow trees starting from the upper ends of the drainages;
 - To avoid impacts to nesting birds, trees should be removed outside of the nesting season (February 15 to August 30), if possible. This work would be done under the existing Memorandum of Understanding (MOU) with the California Department of Fish and Wildlife (CDFW) for stream channel maintenance. The City should work to develop a replanting program to replace removed trees with native trees. Native tree planting is a good project for volunteers;
 - Mow or cut Himalayan blackberry and remove vines. Revisit control areas monthly to remove additional vines or rootstock or allow targeted grazing by goats to eat new growth. To avoid impacts to nesting birds, vines should be removed outside of the nesting season (February 15 to August 30), if possible. This work would be done under the existing MOU with the CDFW for stream channel maintenance. The City should work to develop a replanting program to replace removed Himalayan blackberry with native

shrubs. Manual removal of blackberry root mass or young/ re-sprouted plants and planting native shrubs may be a suitable project for volunteers;

- Select certain areas (such as OC-1, WR-2, WR-3, WR-5, SR-12 to SR-16, SW-4, SW-6, and SW-8) for targeted yellow star-thistle control. Adjust grazing program on these areas to ensure intense pressure prior to flower set of the yellow star-thistle.
- Remove pampas grass by either digging out root masses or cutting and treating with herbicide, depending on the size of the plant. This work would be done under the existing MOU with the CDFW for stream channel maintenance. Manual removal of pampas grass is a good project for volunteers;
- Develop a master restoration plan with standard procedures and typical plans for addressing invasive species removal, bank stabilization, or other similar restoration goals to facilitate implementation of restoration activities within the Preserve in the future.

A summary of how the monitoring goals established in the GOSMP were addressed during the 2017-2018 annual monitoring year and the next steps required for each goal are shown below in **Table 13**.

TABLE 13 — SUMMARY AND STATE OF MONITORING GOALS

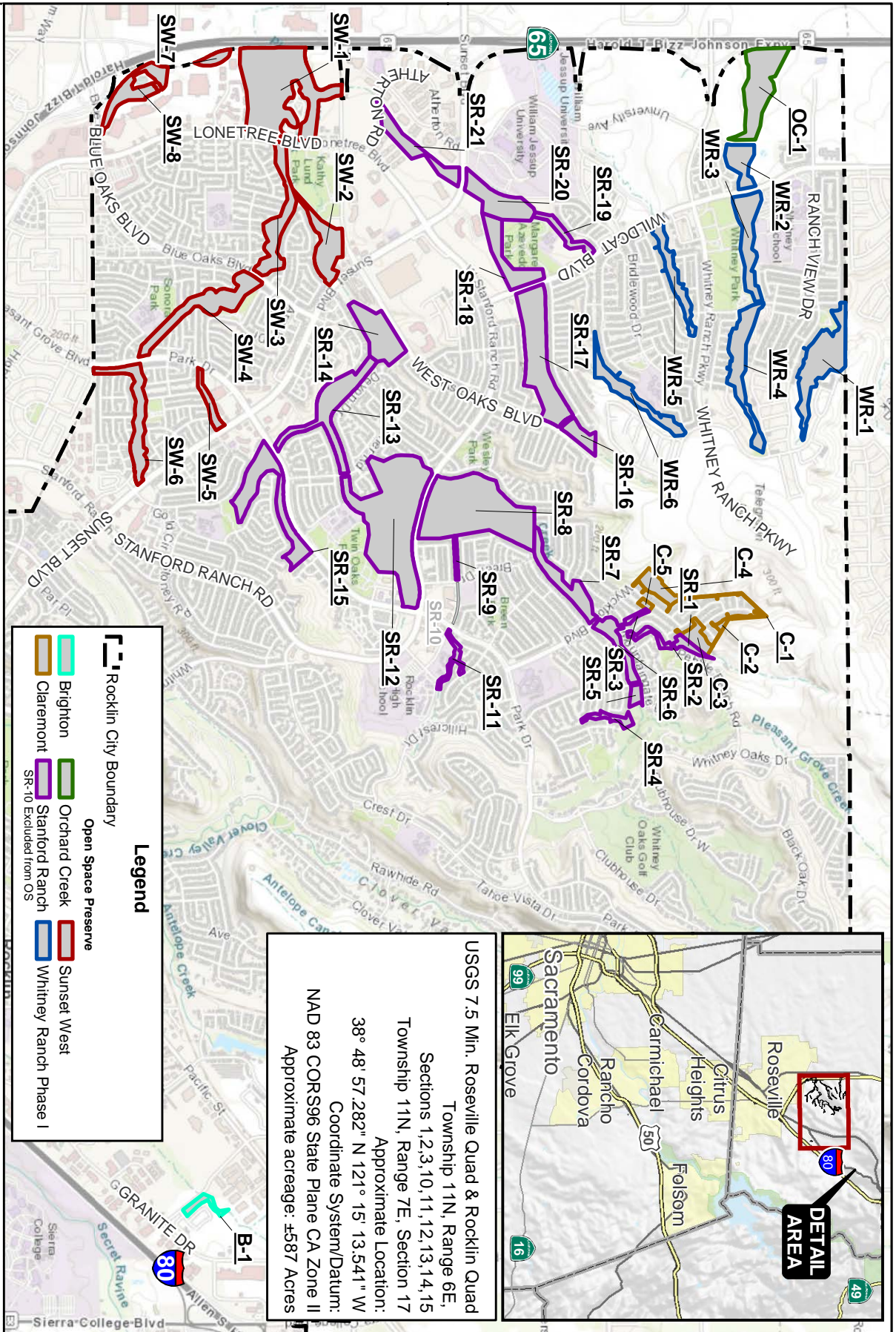
Goal Number	Goal Description	How Addressed	Next Steps for Claremont, Orchard Creek, Sanford Ranch, Sunset West and Whitney Ranch 1	Next Step for Brighton
6-1	Maintain an accurate map of waters of the U.S. within Preserve.	Completed in 2016	Update in 10 years (2026)	Update in 10 years (2027)
6-2	Identify and map quality of native communities. Prioritize areas to receive resources with priority given to high quality habitat.	Completed in 2016 in Claremont, Orchard Creek, Stanford Ranch, Sunset West, and Whitney Ranch Phase 1 Completed in 2017 In Brighton	Update in 10 years (2026)	Update in 10 years (2027)
6-3	Create and maintain detailed maps of Preserve areas.	Completed in 2016 in Claremont, Orchard Creek, Stanford Ranch, Sunset West, and Whitney Ranch Phase 1 Completed in 2017 In Brighton	Update in 5 years (2021)	Update in 5 years (2022)
6-4	Create and maintain an inventory of potential habitat and occupied habitat for special-status species that are likely to occur within the Preserve.	Ongoing	Conduct special-status plant and wildlife surveys in 2018-2019	Conduct special-status plant and wildlife surveys in 2018-2019
6-5	Maintain existing populations of endangered species.	Ongoing, surveys for vernal pool invertebrates and VELB completed	Conduct surveys for vernal pool invertebrates and VELB in 2018-2019	Conduct surveys 2018-2019
6-6	Conduct survey for other native animal species.	Complete	Maintain observed wildlife list in 2018-2019	Maintain observed wildlife list in 2018-2019

Goal Number	Goal Description	How Addressed	Next Steps for Claremont, Orchard Creek, Sanford Ranch, Sunset West and Whitney Ranch 1	Next Step for Brighton
6-7	Maintain a database of beaver dams within the Preserve.	Ongoing	Maintain observed list in 2018-2019	Maintain observed list in 2018-2019
6-8	Track changes in vegetation community species composition.	Completed in 2017	Update in 10 years (2026)	Update in 10 years (2027)
6-9	Conduct surveys for special-status plants that are likely to occur in the Preserve.	Completed in 2017-2018	Conduct special-status plant surveys in 5 years (2022)	Conduct special-status plant surveys in 5 years (2023)
6-10	Map oak tree canopy within the Preserve.	Completed in 2016 in Claremont, Orchard Creek, Stanford Ranch, Sunset West, and Whitney Ranch Phase 1 Completed in 2017 Brighton	Update in 10 years (2026)	Update in 10 years (2027)
6-11	Monitor wetland and riparian areas twice throughout the year.	Completed in 2017-2018	Monitor in 2018-2019	Monitor in 2018-2019
6-12	Monitor oak woodland two times throughout the year.	Completed in 2017 in Claremont, Orchard Creek, Stanford Ranch, Sunset West, and Whitney Ranch Phase 1 Completed in 2018 in Brighton	Conduct survey in 5 years (2021) Update baseline survey in 10 years (2026) in Claremont, Orchard Creek, Stanford Ranch, Sunset West, and Whitney Ranch Phase 1	Conduct survey in 5 years (2022) in Brighton Update Baseline Survey in 10 years (2027) in Brighton
6-13	Monitor vernal pool grassland two times throughout the year.	Completed in 2017-2018	Monitor in 2018-2019	NA

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SITE AND VICINITY

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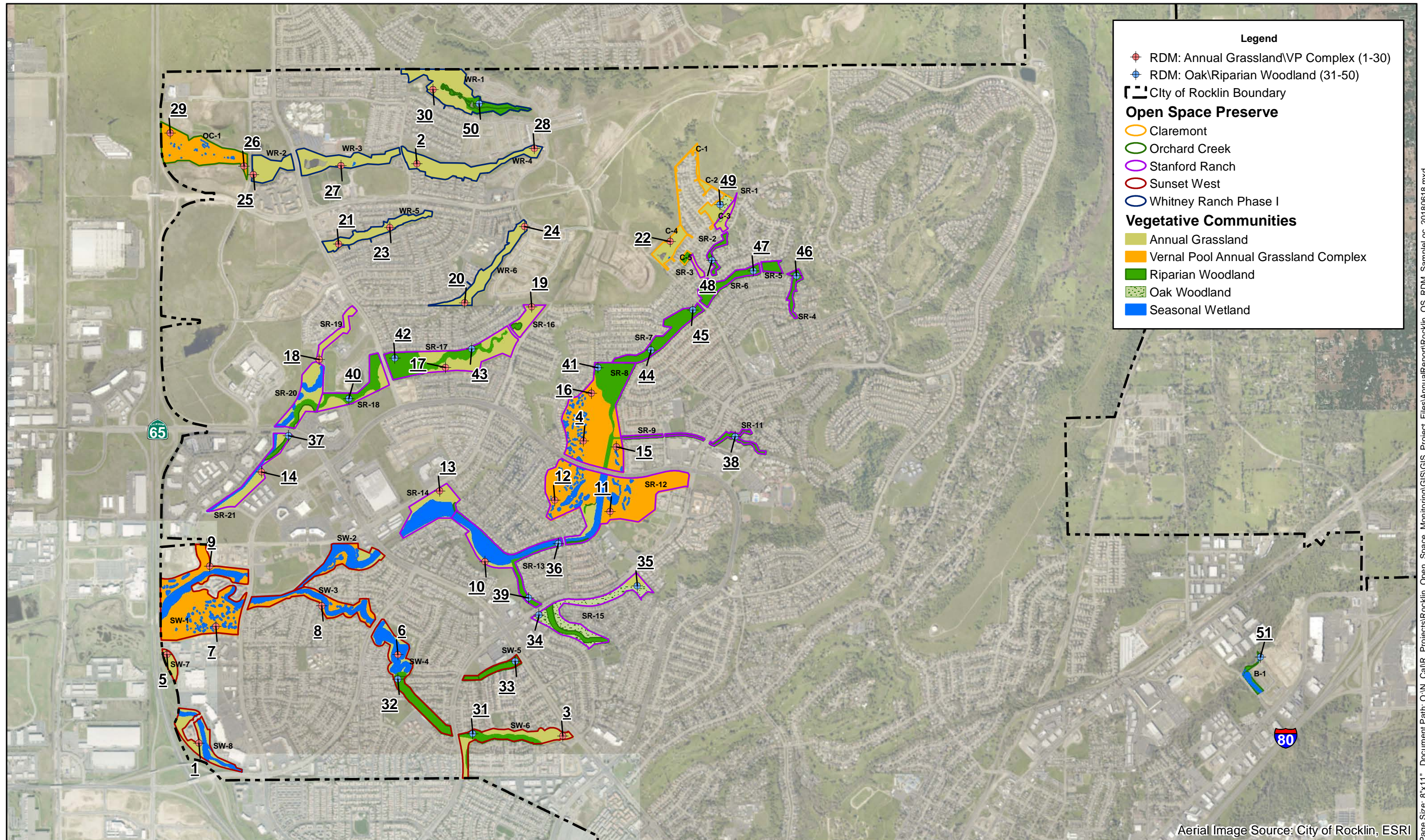
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Drawn By: PSW
 QA/QC: CTGH
 Date: 06/25/2018

FIGURE 1

ROCKLIN OPEN SPACE

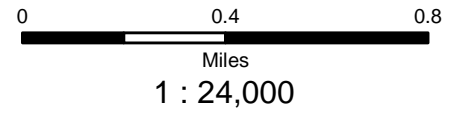
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Legend

- ◆ RDM: Annual Grassland\VP Complex (1-30)
- ◆ RDM: Oak\Riparian Woodland (31-50)
- ▭ City of Rocklin Boundary
- Open Space Preserve**
- Claremont
- Orchard Creek
- Stanford Ranch
- Sunset West
- Whitney Ranch Phase I
- Vegetative Communities**
- Annual Grassland
- Vernal Pool Annual Grassland Complex
- Riparian Woodland
- Oak Woodland
- Seasonal Wetland

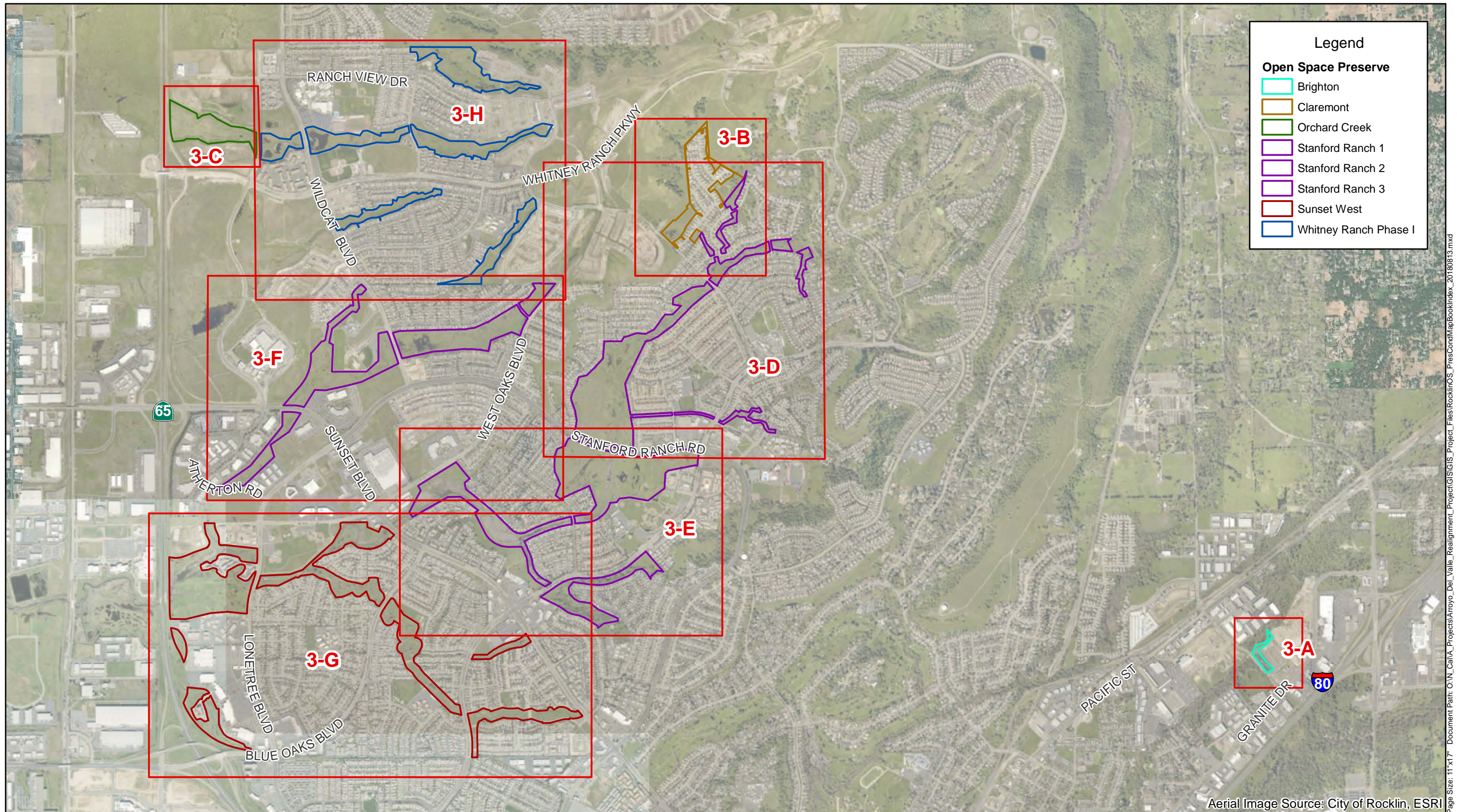
LOCATION OF RDM MONITORING POINTS



Drawn By: PSW
 QA/QC: CTGH
 Date: 06/26/2018

FIGURE 2

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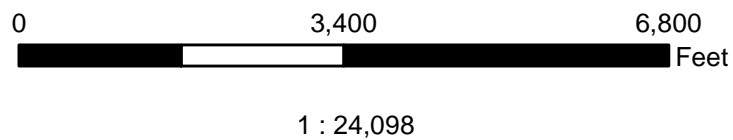
Legend

Open Space Preserve

- Brighton
- Claremont
- Orchard Creek
- Stanford Ranch 1
- Stanford Ranch 2
- Stanford Ranch 3
- Sunset West
- Whitney Ranch Phase I

Aerial Image Source: City of Rocklin, ESRI

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 QA/QC: CTGH
 Date: 06/27/2018

Figure 3
Rocklin Open Space
Index Map
Preserve Conditions

Page Size: 11"x17" Document Path: O:\N_California\Projects\Arroyo_Del_Valle_Realignment_Project\GIS\RocklinOS_PresCondMapBookIndex_20180813.mxd



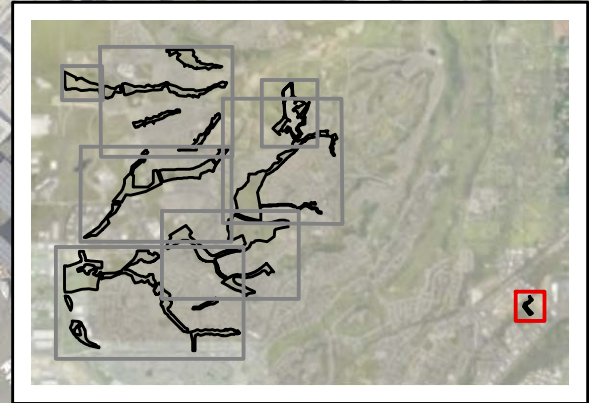
Legend

■ Trash

B-1

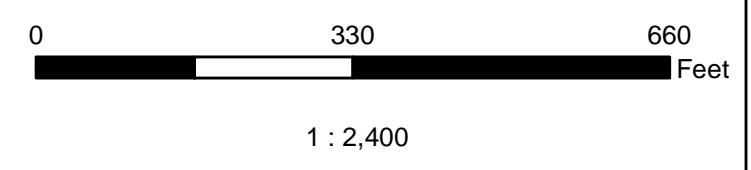
DOMINGUEZ RD

GRANITE DR



Aerial Image Source: City of Rocklin, ESRI

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 Date: 06/27/2018

Figure 3-A
Rocklin Open Space
Brighton
Preserve Conditions

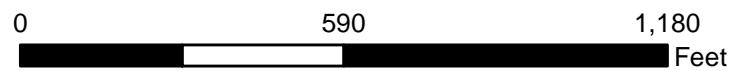


Aerial Image Source: City of Rocklin, ESRI



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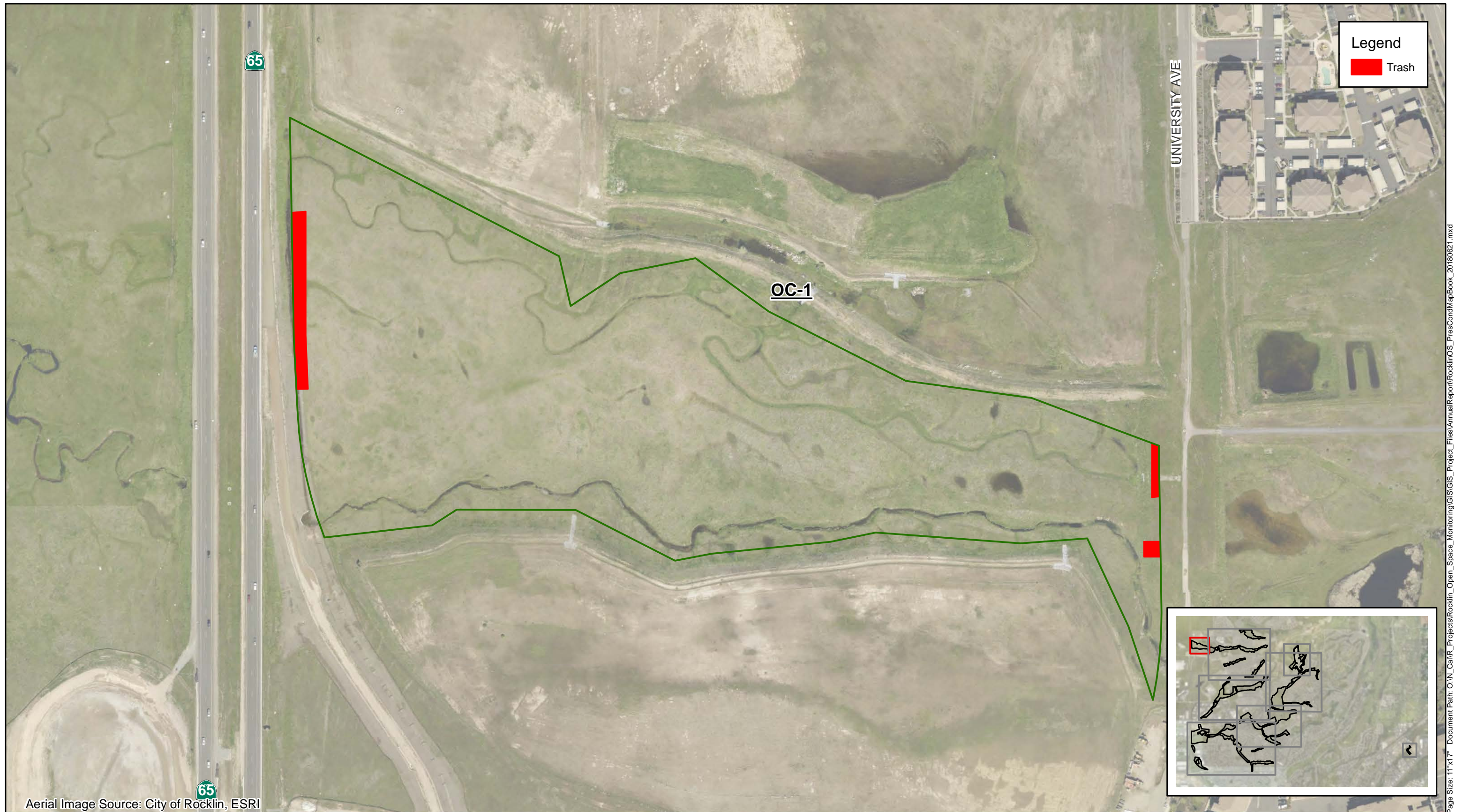
© 2018



1 : 4,200

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Figure 3-B
Rocklin Open Space
Claremont
Preserve Conditions

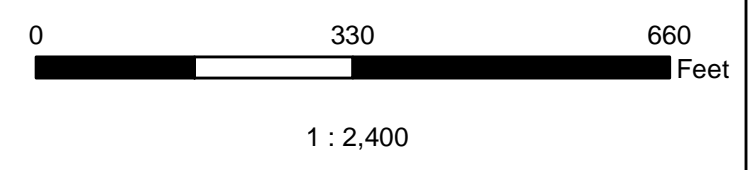


Legend

Trash

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Figure 3-C
Rocklin Open Space
Orchard Creek
Preserve Conditions

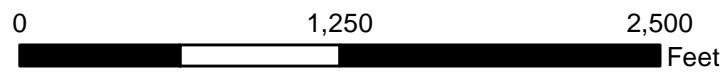


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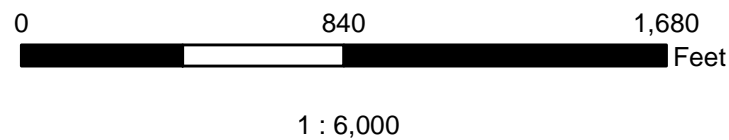
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Drawn By: PSW
 QA/QC: CTGH
 Date: 06/27/2018

Figure 3-D
Rocklin Open Space
Stanford Ranch
Preserve Conditions

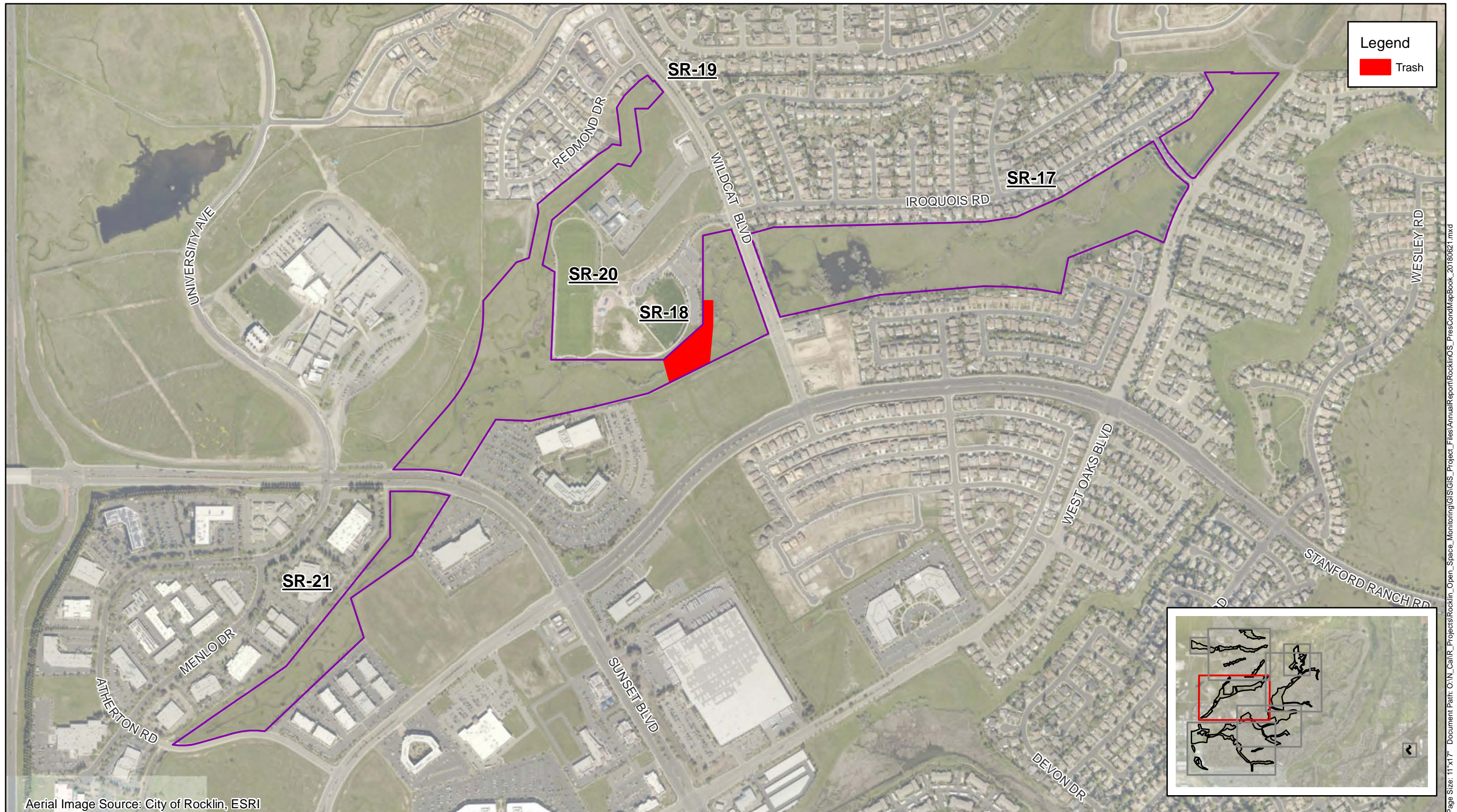


Aerial Image Source: City of Rocklin, ESRI



Drawn By: PSW
 QA/QC: CTGH
 Date: 06/27/2018

Figure 3-E
Rocklin Open Space
Stanford Ranch
Preserve Conditions

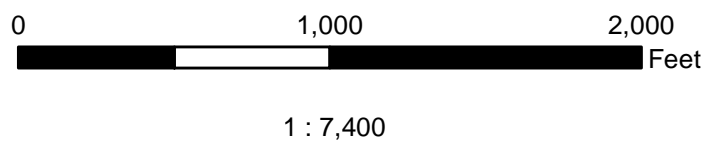


Legend

■ Trash

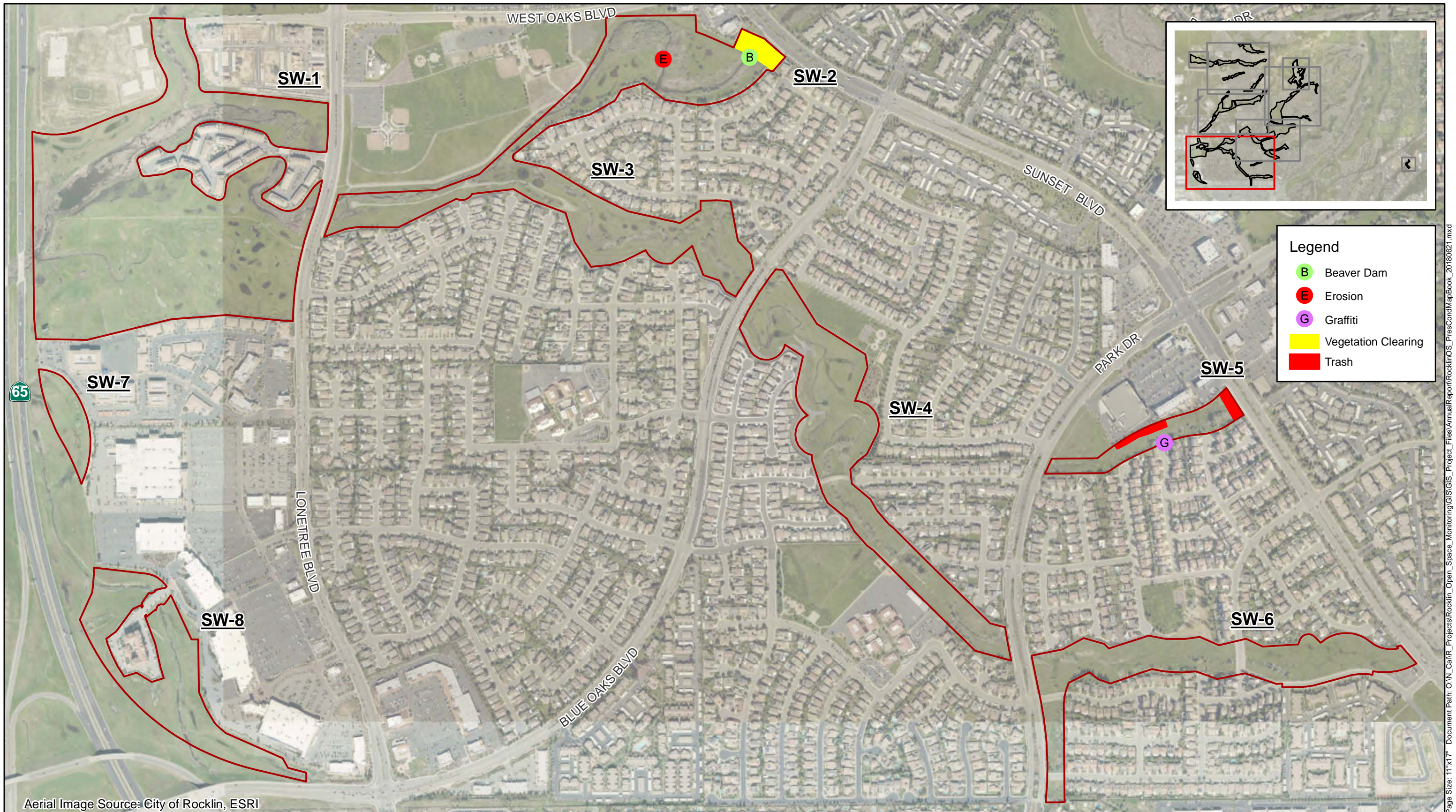
Aerial Image Source: City of Rocklin, ESRI

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Figure 3-F
Rocklin Open Space
Stanford Ranch
Preserve Conditions



Legend

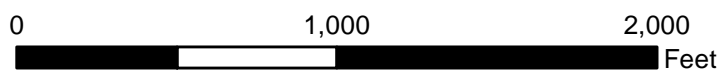
- B Beaver Dam
- E Erosion
- G Graffiti
- Vegetation Clearing
- Trash

Aerial Image Source: City of Rocklin, ESRI



ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

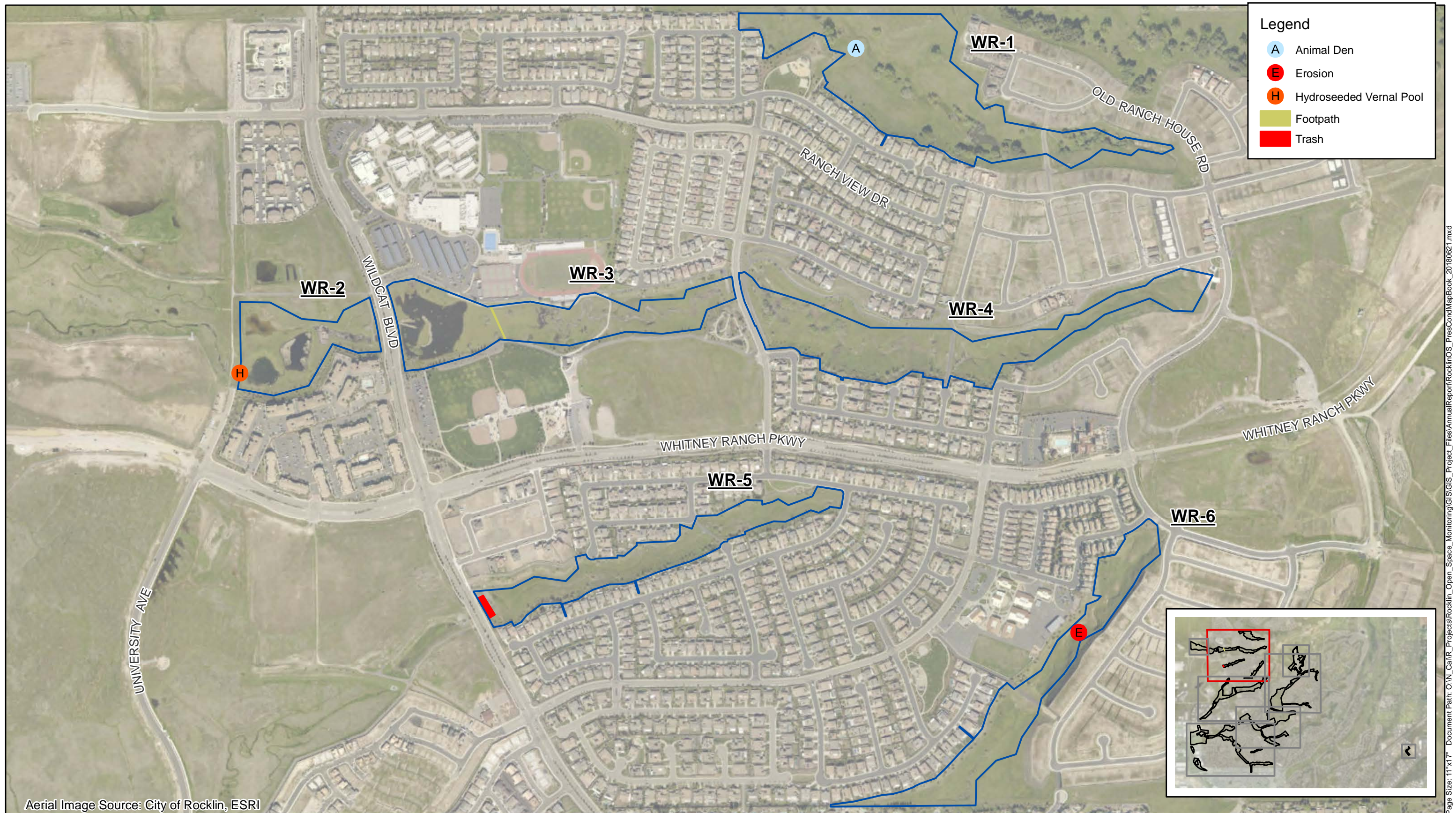
© 2018



1 : 7,200

Drawn By: PSW
 QA/QC: CTGH
 Date: 06/27/2018

Figure 3-G
Rocklin Open Space
Sunset West
Preserve Conditions

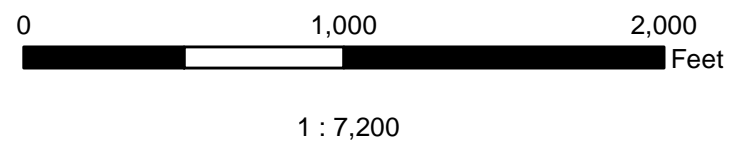


Legend

- A Animal Den
- E Erosion
- H Hydroseeded Vernal Pool
- Footpath
- Trash

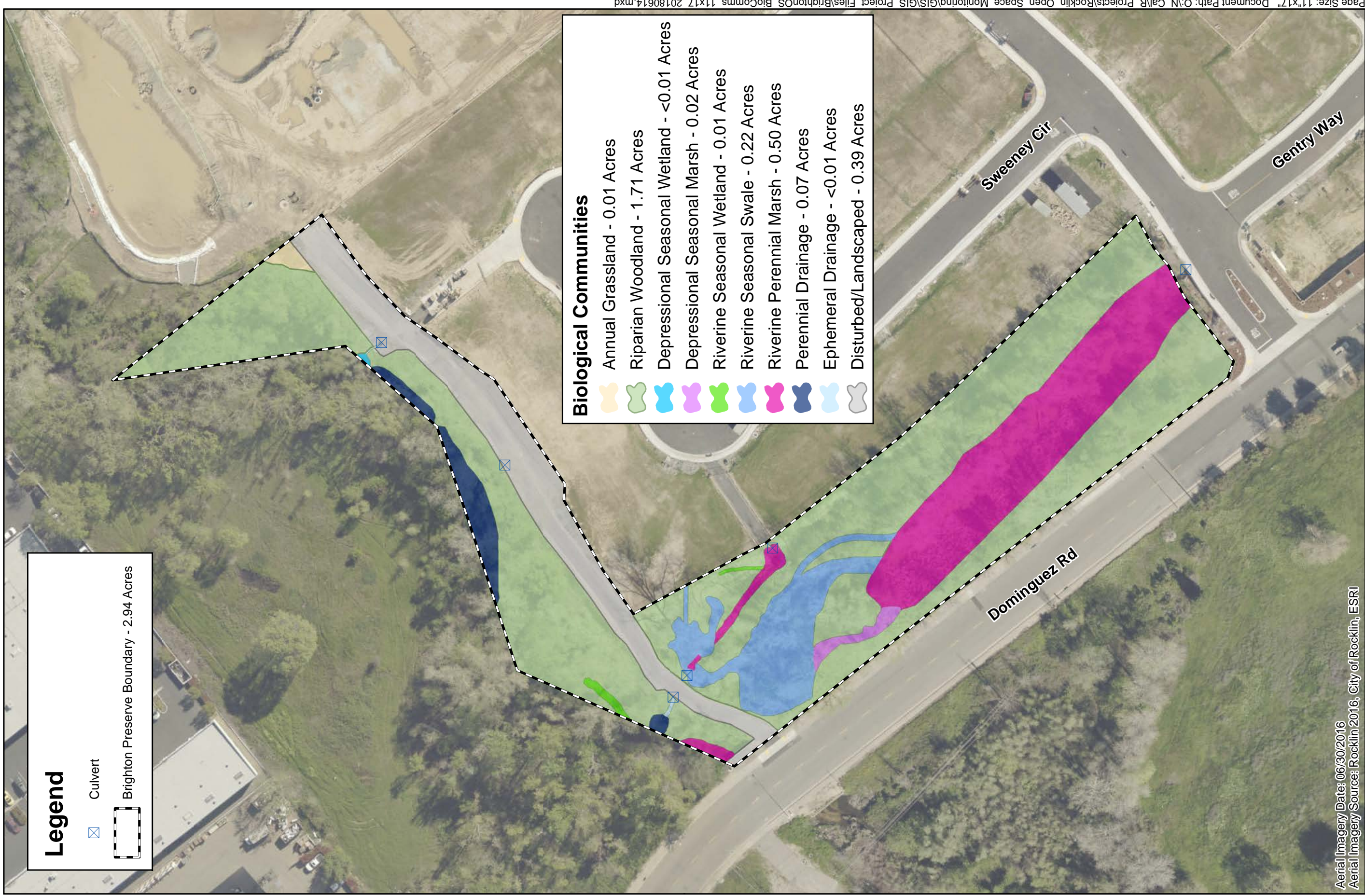
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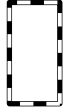


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 Date: 06/27/2018











Figure 3-H
Rocklin Open Space
Whitney Ranch Phase I
Preserve Conditions



Legend

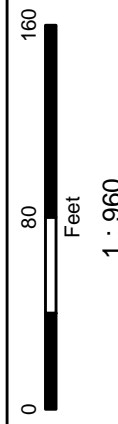
-  Culvert
-  Brighton Preserve Boundary - 2.94 Acres

Biological Communities

-  Annual Grassland - 0.01 Acres
-  Riparian Woodland - 1.71 Acres
-  Depressional Seasonal Wetland - <0.01 Acres
-  Depressional Seasonal Marsh - 0.02 Acres
-  Riverine Seasonal Wetland - 0.01 Acres
-  Riverine Seasonal Swale - 0.22 Acres
-  Riverine Perennial Marsh - 0.50 Acres
-  Perennial Drainage - 0.07 Acres
-  Ephemeral Drainage - <0.01 Acres
-  Disturbed/Landscaped - 0.39 Acres

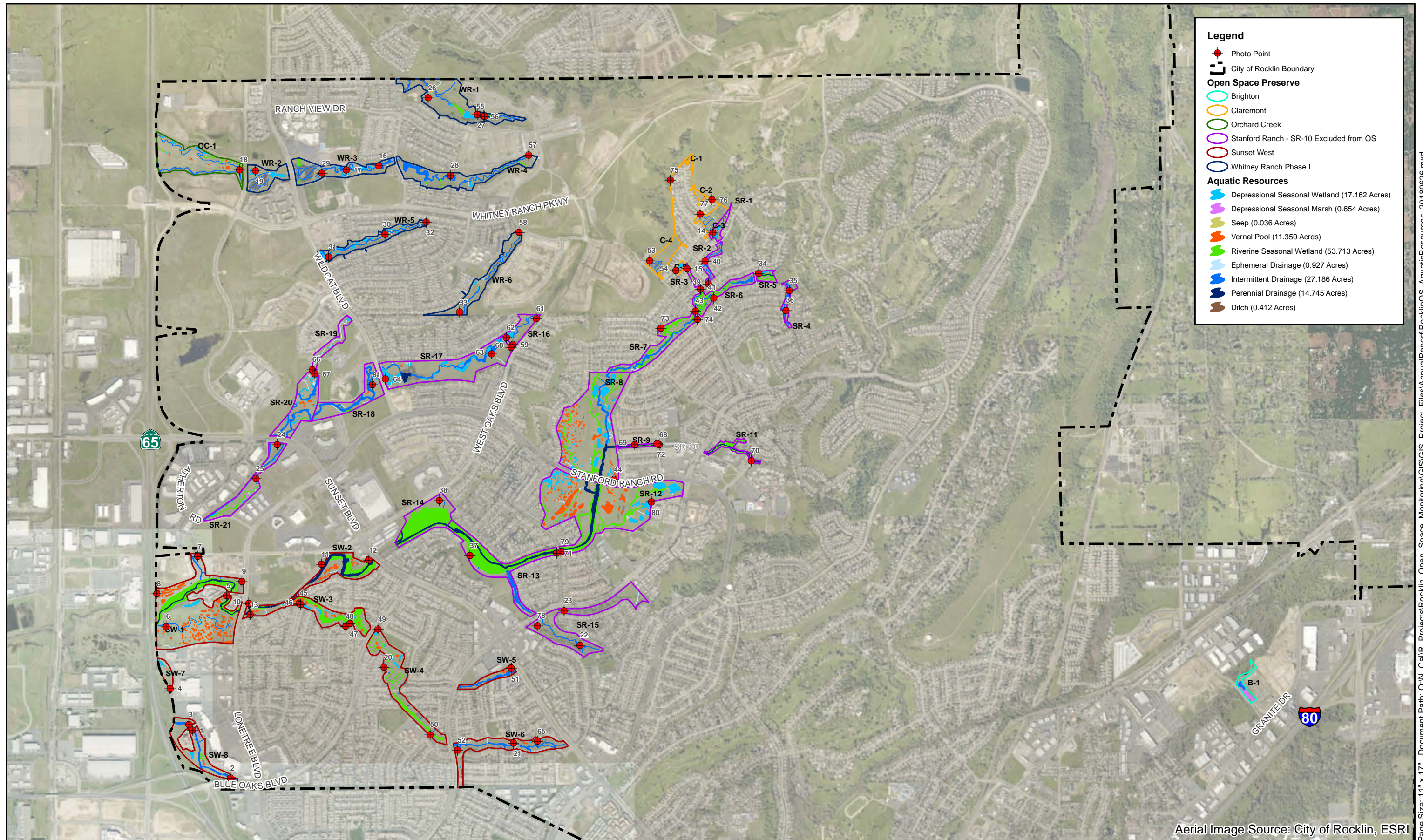
Aerial Imagery Date: 06/30/2016
 Aerial Imagery Source: Rocklin 2016, City of Rocklin, ESRI

BIOLOGICAL COMMUNITIES FOR BRIGHTON OPEN SPACE



Drawn By: PSW
 QA/QC: CTG
 Date: 06/27/2018

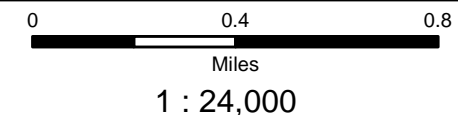
FIGURE 4



Legend

- Photo Point
- City of Rocklin Boundary
- Open Space Preserve**
 - Brighton
 - Claremont
 - Orchard Creek
 - Stanford Ranch - SR-10 Excluded from OS
 - Sunset West
 - Whitney Ranch Phase I
- Aquatic Resources**
 - Depressional Seasonal Wetland (17.162 Acres)
 - Depressional Seasonal Marsh (0.654 Acres)
 - Seep (0.036 Acres)
 - Vernal Pool (11.350 Acres)
 - Riverine Seasonal Wetland (53.713 Acres)
 - Ephemeral Drainage (0.927 Acres)
 - Intermittent Drainage (27.186 Acres)
 - Perennial Drainage (14.745 Acres)
 - Ditch (0.412 Acres)

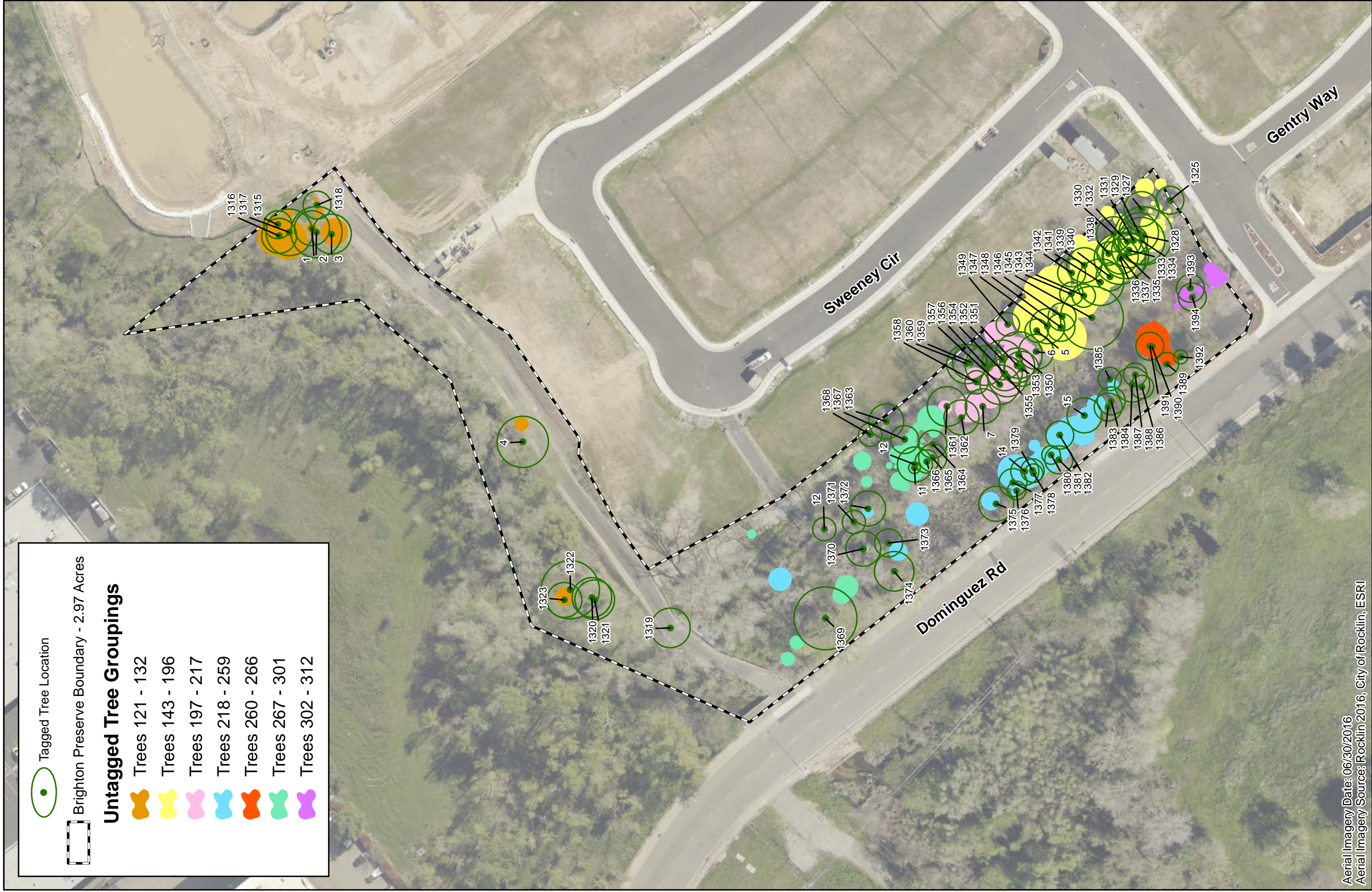
AQUATIC RESOURCES DELINEATION MAP


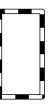









Drawn By: PSW
 QA/QC: CTGH
 Date: 06/27/2018

FIGURE 5

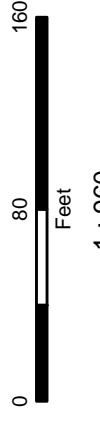
Aerial Image Source: City of Rocklin, ESRI



 Tagged Tree Location
 Brighton Preserve Boundary - 2.97 Acres
Untagged Tree Groupings
 Trees 121 - 132
 Trees 143 - 196
 Trees 197 - 217
 Trees 218 - 259
 Trees 260 - 266
 Trees 267 - 301
 Trees 302 - 312

Aerial Imagery Date: 06/30/2016
 Aerial Imagery Source: Rocklin 2016, City of Rocklin, ESRI

OAK TREE LOCATIONS AND OAK WOODLAND FOR BRIGHTON OPEN SPACE



Drawn By: PSW
 QA/QC: CTGH
 Date: 06/27/2018

FIGURE 6

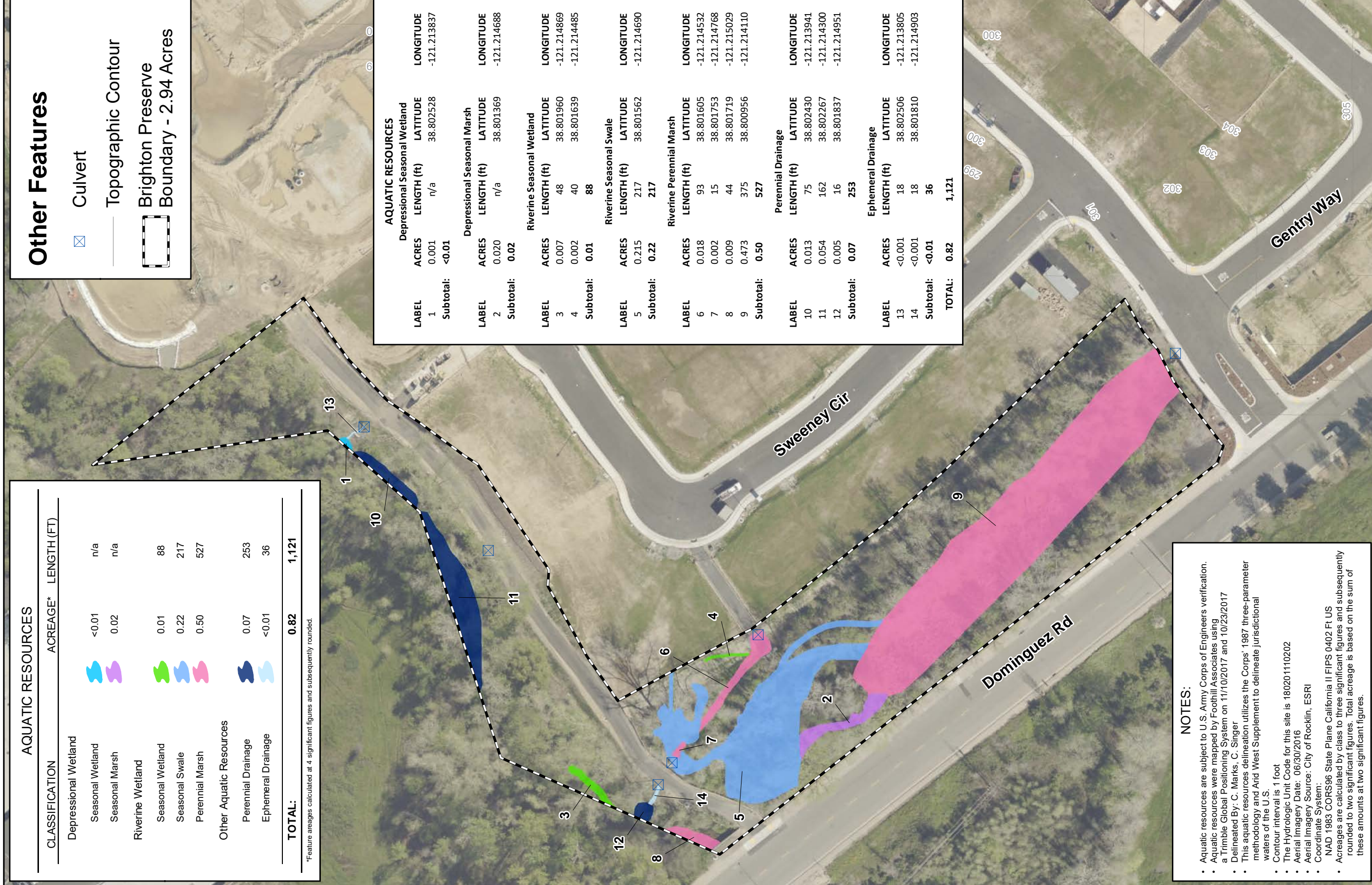
AQUATIC RESOURCES		
CLASSIFICATION	ACREAGE*	LENGTH (FT)
Depressional Wetland		
Seasonal Wetland	<0.01	n/a
Seasonal Marsh	0.02	n/a
Riverine Wetland		
Seasonal Wetland	0.01	88
Seasonal Swale	0.22	217
Perennial Marsh	0.50	527
Other Aquatic Resources		
Perennial Drainage	0.07	253
Ephemeral Drainage	<0.01	36
TOTAL:	0.82	1,121

*Feature areages calculated at 4 significant figures and subsequently rounded.

Other Features

-  Culvert
-  Topographic Contour
-  Brighton Preserve Boundary - 2.94 Acres

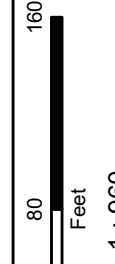
AQUATIC RESOURCES		
Depressional Seasonal Wetland		
LABEL	ACRES	LONGITUDE
1	0.001	-121.213837
Subtotal:	<0.01	
Depressional Seasonal Marsh		
LABEL	ACRES	LONGITUDE
2	0.020	-121.214688
Subtotal:	0.02	
Riverine Seasonal Wetland		
LABEL	ACRES	LONGITUDE
3	0.007	-121.214869
4	0.002	-121.214485
Subtotal:	0.01	
Riverine Seasonal Swale		
LABEL	ACRES	LONGITUDE
5	0.215	-121.214690
Subtotal:	0.22	
Riverine Perennial Marsh		
LABEL	ACRES	LONGITUDE
6	0.018	-121.214532
7	0.002	-121.214768
8	0.009	-121.215029
9	0.473	-121.214110
Subtotal:	0.50	
Perennial Drainage		
LABEL	ACRES	LONGITUDE
10	0.013	-121.213941
11	0.054	-121.214300
12	0.005	-121.214951
Subtotal:	0.07	
Ephemeral Drainage		
LABEL	ACRES	LONGITUDE
13	<0.001	-121.213805
14	<0.001	-121.214903
Subtotal:	<0.01	
TOTAL:	0.82	1,121



NOTES:

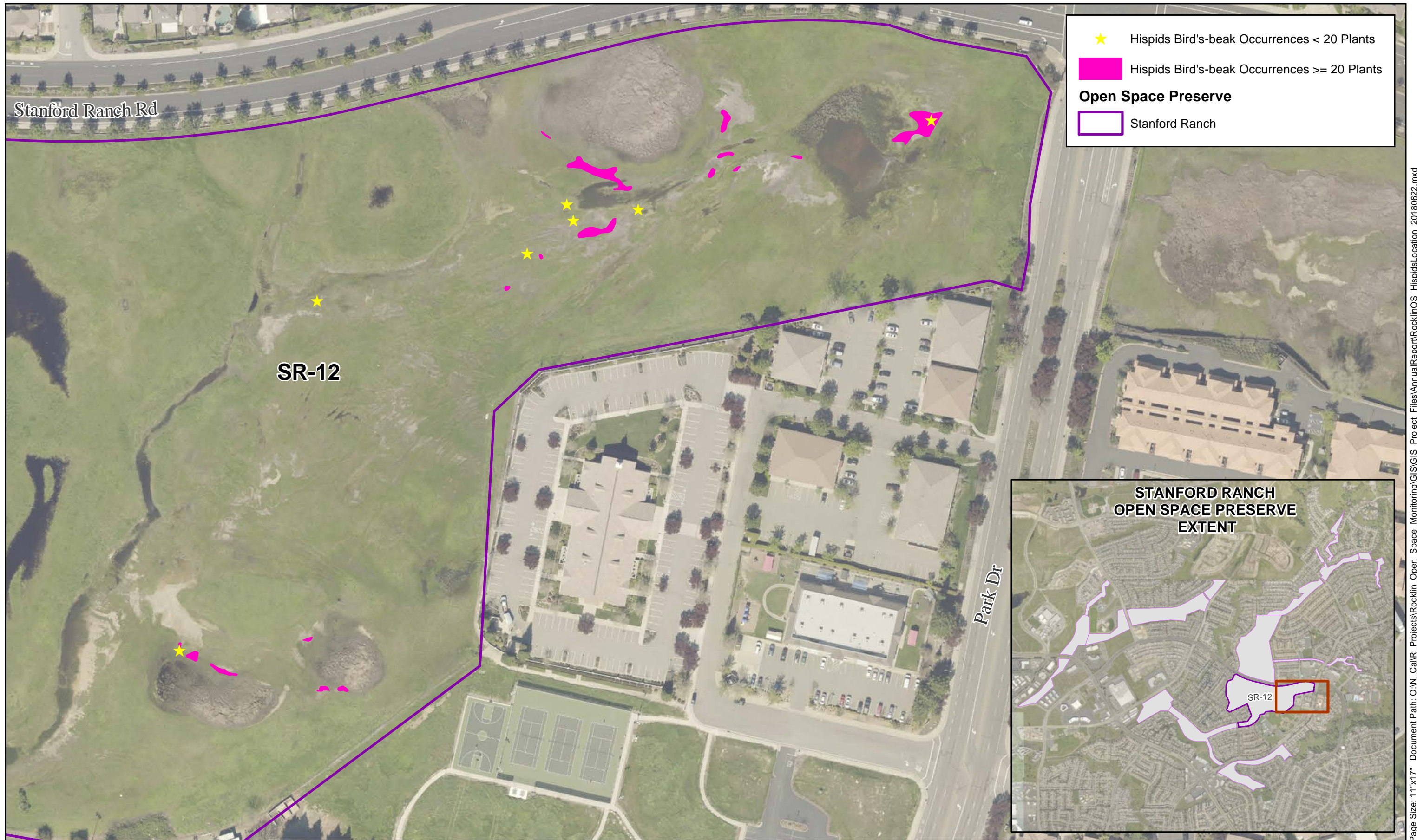
- Aquatic resources are subject to U.S. Army Corps of Engineers verification.
- Aquatic resources were mapped by Foothill Associates using a Trimble Global Positioning System on 11/10/2017 and 10/23/2017
- Delineated By: C. Marks, C. Singer
- This aquatic resources delineation utilizes the Corps' 1987 three-parameter methodology and Arid West Supplement to delineate jurisdictional waters of the U.S.
- Contour interval is 1 foot
- The Hydrologic Unit Code for this site is 180201110202
- Aerial Imagery Date: 06/30/2016
- Aerial Imagery Source: City of Rocklin, ESRI
- Coordinate System: NAD 1983 CORRS96 State Plane California II FIPS 0402 Ft US
- Acreages are calculated by class to three significant figures and subsequently rounded to two significant figures. Total acreage is based on the sum of these amounts at two significant figures.

AQUATIC RESOURCES DELINEATION FOR BRIGHTON OPEN SPACE

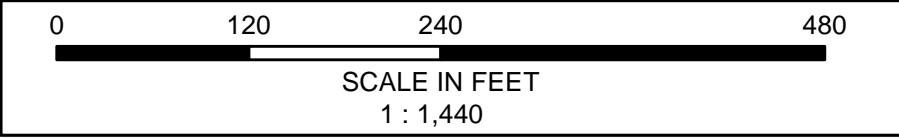


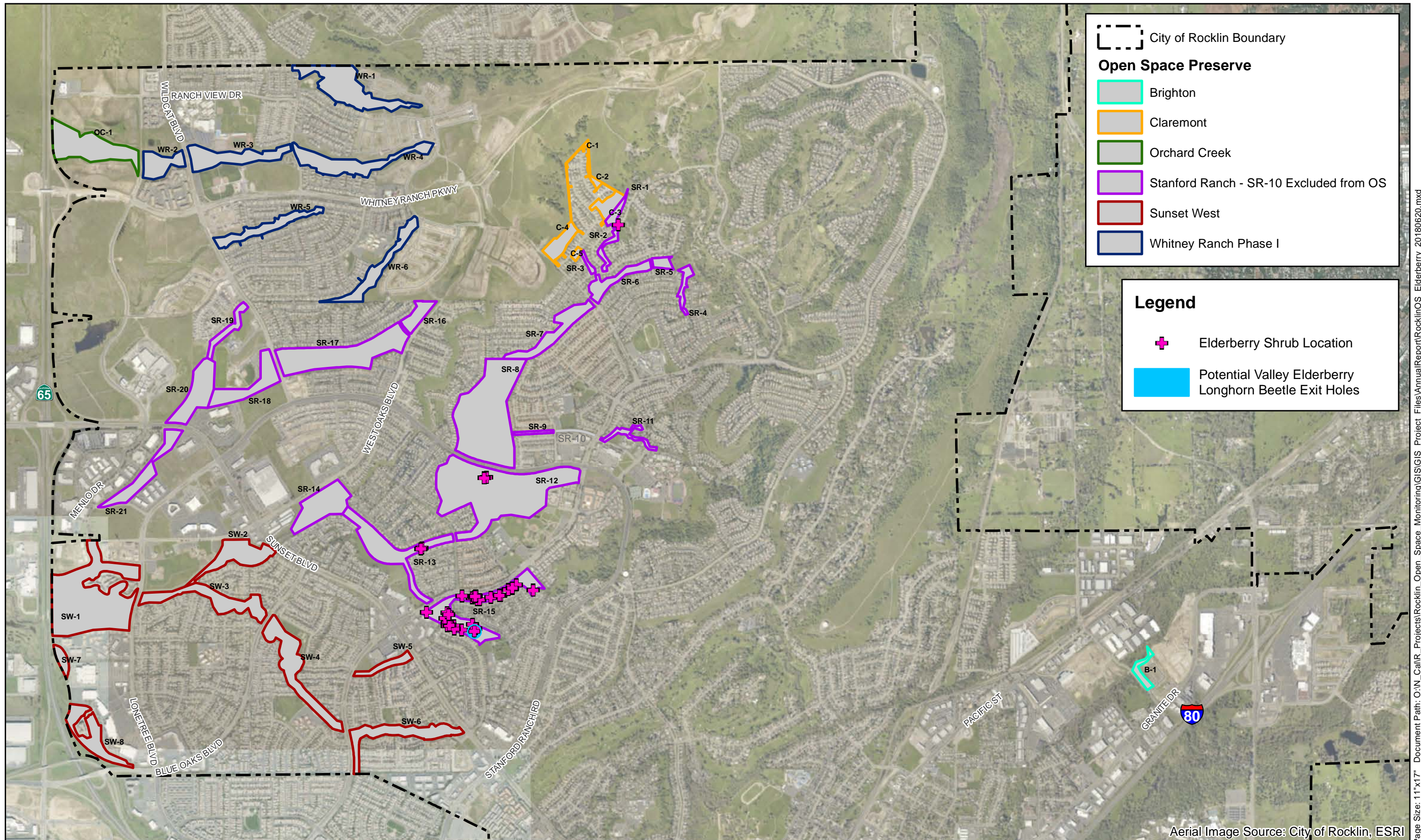
Drawn By: PSW
QA/QC: CTGH
Date: 06/27/2018

FIGURE 7



★ Hispid's Bird's-beak Occurrences < 20 Plants
 Hispid's Bird's-beak Occurrences \geq 20 Plants
Open Space Preserve
 Stanford Ranch





City of Rocklin Boundary

Open Space Preserve

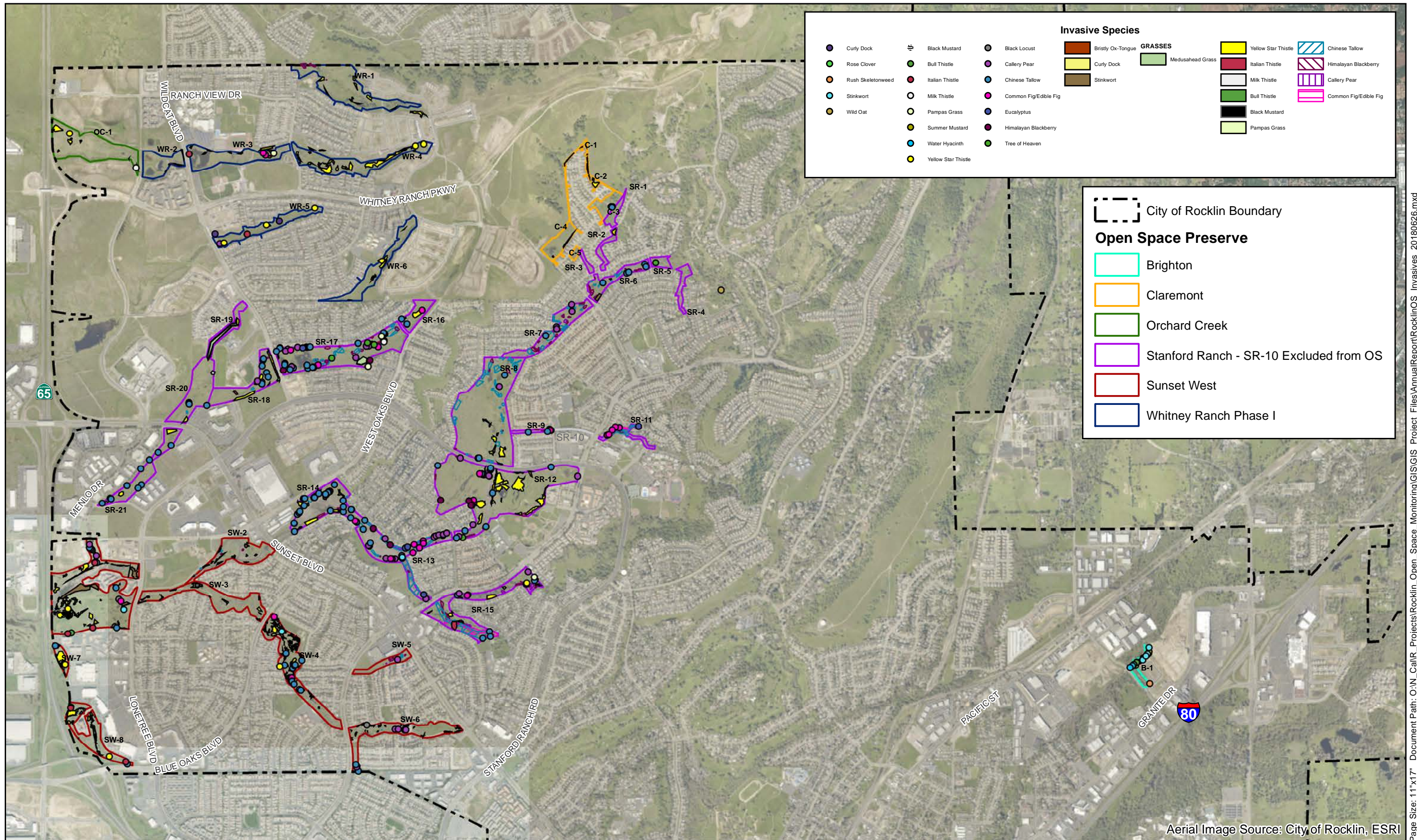
- Brighton
- Claremont
- Orchard Creek
- Stanford Ranch - SR-10 Excluded from OS
- Sunset West
- Whitney Ranch Phase I

Legend

- Elderberry Shrub Location
- Potential Valley Elderberry Longhorn Beetle Exit Holes

Aerial Image Source: City of Rocklin, ESRI





Invasive Species

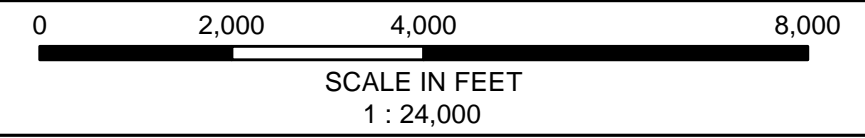
● Curly Dock	⊕ Black Mustard	● Black Locust	■ Bristly Ox-Tongue	■ GRASSES	■ Yellow Star Thistle	■ Chinese Tallow
● Rose Clover	● Bull Thistle	● Callery Pear	■ Curly Dock	■ Medusahead Grass	■ Italian Thistle	■ Himalayan Blackberry
● Rush Skeletonweed	● Italian Thistle	● Chinese Tallow	■ Stinkwort	■ Milk Thistle	■ Callery Pear	■ Callery Pear
● Stinkwort	○ Milk Thistle	● Common Fig/Edible Fig		■ Bull Thistle	■ Common Fig/Edible Fig	
● Wild Oat	● Pampas Grass	● Eucalyptus		■ Black Mustard		
	● Summer Mustard	● Himalayan Blackberry		■ Pampas Grass		
	● Water Hyacinth	● Tree of Heaven				
	● Yellow Star Thistle					

City of Rocklin Boundary

Open Space Preserve

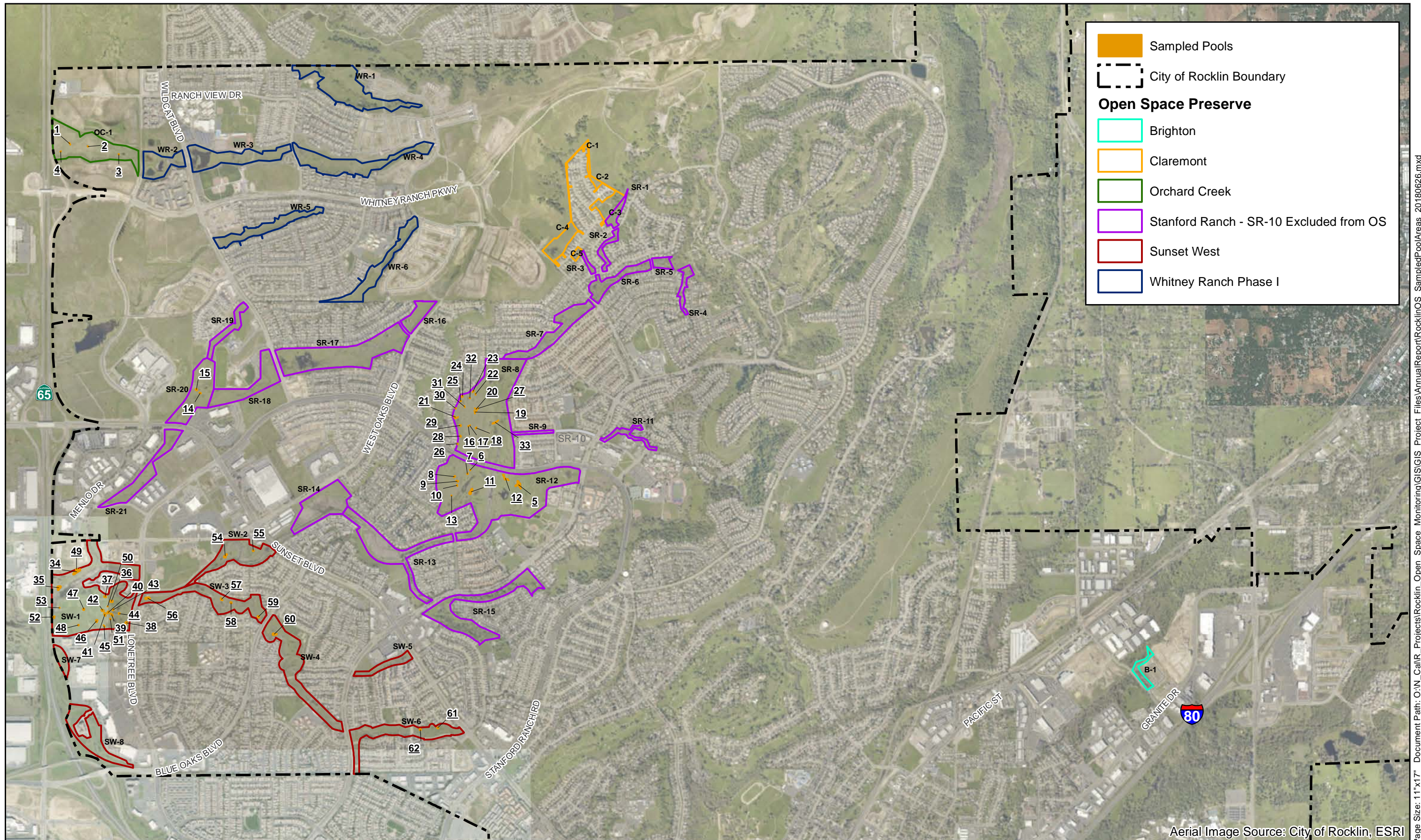
- Brighton
- Claremont
- Orchard Creek
- Stanford Ranch - SR-10 Excluded from OS
- Sunset West
- Whitney Ranch Phase I

INVASIVE SPECIES



Drawn By: PSW
 QAQC: CTGH
 Date: 06/27/2018

FIGURE 10

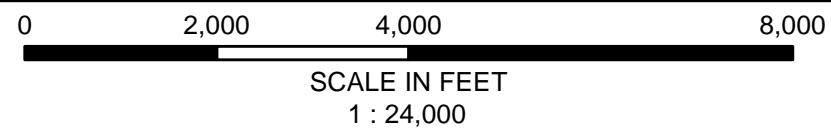


Legend

- Sampled Pools
- City of Rocklin Boundary
- Open Space Preserve**
- Brighton
- Claremont
- Orchard Creek
- Stanford Ranch - SR-10 Excluded from OS
- Sunset West
- Whitney Ranch Phase I

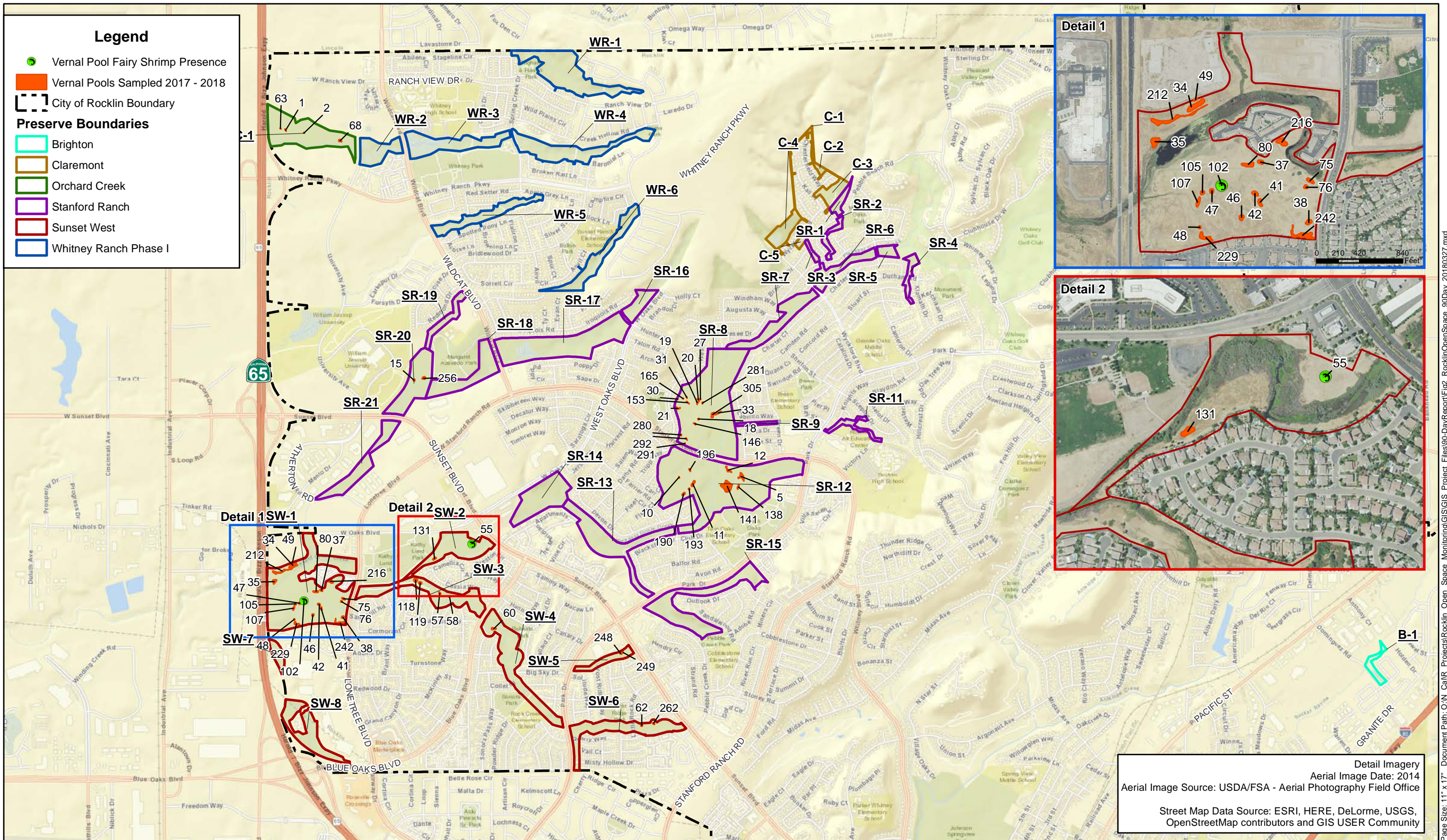
Aerial Image Source: City of Rocklin, ESRI

SAMPLED POOL AREAS



Drawn By: PSW
 QAQC: CTGH
 Date: 06/27/2018

FIGURE 11



**Sampled Vernal Pools and
 Listed Branchiopod Occurrences**

FIGURE 12

Detail Imagery
 Aerial Image Date: 2014
 Aerial Image Source: USDA/FSA - Aerial Photography Field Office
 Street Map Data Source: ESRI, HERE, DeLorme, USGS,
 OpenStreetMap contributors and GIS USER Community

Appendix A — Representative Site Photographs



Description: RDM survey within Claremont (C-4). RDM point 22.

Date: October 27, 2017 Photographer: Marisa Brilts



Description: RDM survey within Orchard Creek (OC-1). RDM point 26.

Date: October 19, 2017 Photographer: Marisa Brilts



Description: RDM survey within Stanford Ranch (SR-6). RDM point 46.

Date: October 23, 2017 Photographer: Cristian Singer



Description: RDM survey within Sunset West (SW-5). RDM point 33.

Date: October 31, 2017 Photographer: Marisa Brilts



Description: RDM survey within Whitney Ranch (WR-5). RDM point 21.

Date: October 31, 2017 Photographer: Marisa Brilts



Description: RDM survey within Stanford Ranch (SR-15). RDM point 35.

Date: October 23, 2017 Photographer: Cristian Singer

REPRESENTATIVE SITE PHOTOGRAPHS



Description: Overview of the Brighton Preserve.

Date: November 10, 2017 Photographer: Charlotte Marks



Description: Riparian vegetation within the Brighton Preserve.

Date: November 10, 2017 Photographer: Charlotte Marks



Description: Marsh located within the Brighton Preserve.

Date: November 10, 2017 Photographer: Charlotte Marks



Description: Culverts located within the Brighton Preserve.

Date: November 10, 2017 Photographer: Charlotte Marks



Description: Bike path along the Brighton Preserve.

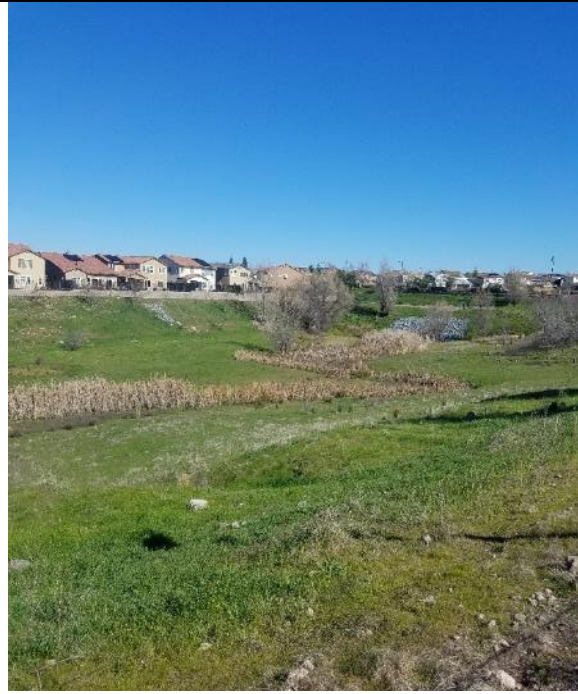
Date: November 10, 2017 Photographer: Charlotte Marks



Description: Aquatic vegetation within the Brighton Preserve.

Date: November 10, 2017 Photographer: Charlotte Marks

REPRESENTATIVE SITE PHOTOGRAPHS



Description: Riparian assessment conducted on Whitney Ranch (WR-3). Denominate plants include; cattails, cottonwood, and bushy bluestem.

Date: February 13, 2018

Photographer: Marisa Britts



Description: Riparian assessment conducted on Stanford Ranch (SR-7). Vegetation removal preformed on 2016. Banks revegetating nicely.

Date: February 13, 2018

Photographer: Marisa



Description: Riparian assessment conducted on Sunset West (SW-4). Debris deposited on upland banks after a large storm.

Date: March 20, 2018

Photographer: Marisa Britts



Description: Riparian assessment conducted on Whitney Ranch (WR-6).

Date: February 13, 2018

Photographer: Marisa Britts



Description: Riparian assessment conducted on Stanford Ranch (SR-6).

Date: October 31, 2017

Photographer: Marisa Britts



Description: Riparian assessment conducted on Stanford Ranch (SR-20).

Date: October 12, 2017

Photographer: Marisa Britts

REPRESENTATIVE SITE PHOTOGRAPHS



Description: Invertebrate survey within Orchard Creek (OC-1). Vernal pool number 68.

Date: January 26, 2018

Photographer: Marisa Britts



Description: Invertebrate survey within Stanford Ranch (SR-12). Vernal pool number 190.

Date: February 1, 2018

Photographer: Marisa Britts



Description: Invertebrate survey within Sunset West (SW-2). Vernal pool number 55. Vernal pool fairy shrimp occurrence.

Date: February 6, 2018

Photographer: Marisa Britts



Description: Invertebrate survey within Sunset West (SW-1). Vernal pool number 41.

Date: March 2, 2018

Photographer: Marisa Britts



Description: Invertebrate survey within Sunset West (SW-3). Vernal pool number 57.

Date: March 16, 2018

Photographer: Marisa Britts



Description: Invertebrate survey within Sunset West (Sw-1). Vernal pool number 242.

Date: March 2, 2018

Photographer: Marisa Britts

REPRESENTATIVE SITE PHOTOGRAPHS



Description: Floristic monitoring within Stanford Ranch (SR-8). Vernal pool number 20.

Date: May 7, 2018 Photographer: Marisa Brilts



Description: Floristic monitoring within Stanford Ranch (SR-8). Vernal pool number 280.

Date: May 7, 2018 Photographer: Marisa Brilts



Description: Floristic monitoring within Stanford Ranch (SR-12). Vernal pool number 11.

Date: June 6, 2018 Photographer: Marisa Brilts



Description: Floristic monitoring within Sunset West (SW-4). Vernal pool number 60.

Date: May 11, 2018 Photographer: Marisa Brilts



Description: Floristic monitoring within Orchard Creek (OC-1). Vernal pool number 1.

Date: June 1, 2018 Photographer: Marisa Brilts



Description: Floristic monitoring within Sunset West (SW-6). Vernal pool 262.

Date: May 10, 2018 Photographer: Marisa Brilts

REPRESENTATIVE SITE PHOTOGRAPHS



Description: Pedestrian path adjacent to Sunset West (SW-3).

Date: April 12, 2018

Photographer: Marisa Brilts



Description: Hispid bird's-beak (*Cordylanthus mollis* ssp. *hispidus*). CNPS ranked 1B plant mapped within Stanford Ranch (SR-12).

Date: June 12, 2018

Photographer: Marisa Brilts



Description: Active raptor nest located within Whiney Ranch (WR-1).

Date: February 12, 2018

Photographer: Marisa Brilts



Description: Fall colors within Stanford Ranch.

Date: October 31, 2017

Photographer: Marisa Brilts



Description: Oak woodland located within Stanford Ranch.

Date: October 31, 2017

Photographer: Marisa Brilts



Description: Large animal burrow located within Whiney Ranch (WR-1).

Date: February 12, 2018

Photographer: Marisa Brilts

REPRESENTATIVE SITE PHOTOGRAPHS

Appendix B — Vernal Pool Invertebrate Survey Datasheets

Project Site: Rocklin Open Space							Date: 1/26/2018							Quad: Roseville & Rocklin						
County: Placer							Time: 9:30 AM - 12:30 PM							Township: 11 North						
Collectors: Marisa Britts							Temp: 53°F							Range: 6E						
Permit #: TE-810380-6							Weather Conditions: Overcast, -2.5 mph wind							Section: 1-3, 10-15						
Vernal Pool #	Water Temp. (°C)	Water Depth (cm)	Estimated Maximum Depth (cm)	Present Surface Area (mxm)	Inundation (%)	Photo #	Crustacea						Turbellaria Flatworms	Insecta				Notes		
							Anostraca		Notostraca		Cladocera (Water Fleas)	Conchostraca (Clem Strimps)		Copepoda (Copepods)	Ostracoda (Seed Strimp)	Coleoptera			Hemiptera	Diptera
							Vernal Pool Fairy Shrimp (B. lynchi)	California Linderella	Vernal Pool Tadpole Shrimp	Dytiscidae (Diving Water Beetles)						Halpidae (Crawling Water Beetles)				
Orchard Creek (OC-1)																				
68*	6	15	20.32	5x3	100%	1							x	x	x					
63*	5	20		4x2	100%	2							x	x	x		x	x		
1	5	15	27.94	5x2	98%	3							x	x	x		x	x		
2	4	23	35.56	3x3	100%	4								x	x					
Sunset West (SW-1)																				
60	6	20	30.48	6x3	75%	8				x			x	x	x				Spider, Pseudacris sierra tadpoles, and snail	
Sunset West (SW-6)																				
62	9	18	22.86	5x3	90%	6				x				x	x				x	
262	9	13	20.32	5x3	90%	7				x				x	x				x	Spider and Pseudacris sierra tadpoles

Project Site: Rocklin Open Space							Date: 2/1/2018							Quad: Roseville & Rocklin						
County: Placer							Time: 8:45 AM - 12:15 PM							Township: 11 North						
Collectors: Marisa Britts							Temp: 50-66°F							Range: 6E						
Permit #: TE-810380-6							Weather Conditions: Slight cloudy, wind at ~1mph							Section: 1-3, 10-15						
Vernal Pool #	Water Temp. (°C)	Water Depth (cm)	Estimated Maximum Depth (cm)	Present Surface Area (mxm)	Inundation (%)	Photo #	Crustacea						Turbellaria Flatworms	Insecta				Notes		
							Anostraca		Notostraca							Coleoptera			Hemiptera	Diptera
							Vernal Pool Fairy Shrimp (B. lynchii)	California Linderella	Vernal Pool Tadpole Shrimp	Chydocera (Water Fleas)	Conchostraca (Clam Shrimps)	Copepoda (Copepods)		Ostracoda (Seed Shrimp)	Dytiscidae (Diving Water Beetles)	Hydrophilidae (Crawling Water Beetles)	Notonectidae (Backswimmers)		Chironomidae (Midges)	
Stanford Ranch (SR-12)																				
5	7	8	10.16	6x1	10%	1								x			Pseudacris sierra tadpoles and eggs			
141*	9	15		91x46	90%	2				x			x		x		Pseudacris sierra tadpoles and eggs			
12	7	15	25.40	9x3	50%	3				x		x		x		x	Pseudacris sierra tadpoles and eggs			
138*	DRY																			
196*	7	8	10.16	5x2	100%	8				x			x				Pseudacris sierra tadpoles and eggs			
11	8	15	20.32	61x12	100%	9				x			x				Pseudacris sierra tadpoles and eggs			
193*	8	15	20.32	9x1	95%	10			1,000	x			x		x		Pseudacris sierra tadpoles and eggs			
190*	8	5	12.70	12x6	95%	11			1,000	x			x				Pseudacris sierra tadpoles and eggs			
10	DRY					12														

Project Site: Rocklin Open Space				Date: 2/2/2018				Quad: Roseville & Rocklin												
County: Placer				Time: 8:00 AM - 3:30 PM				Township: 11 North												
Collectors: Marisa Brilts				Temp: 64°F				Range: 6E												
Permit #: TE-810380-6				Weather Conditions: Sunny, slight wind -1mph, 58% humidity				Section: 1-3, 10-15												
Vernal Pool #	Water Temp. (°C)	Water Depth (cm)	Estimated Maximum Depth (cm)	Present Surface Area (mxm)	Inundation (%)	Photo #	Crustacea						Turbellaria Flatworms	Insecta				Notes		
							Anostraca		Notostraca		Cladocera (Water Fleas)	Conchostraca (Clam Shrimps)		Copepoda (Copepods)	Ostracoda (Seed Shrimp)	Coleoptera			Hemiptera	Diptera
							Vernal Pool Fairy Shrimp (B. lynch)	California Linderella	Vernal Pool Tadpole Shrimp							Dytiscidae (Diving Water Beetles)	Haliplidae (Crawling Water Beetles)			
Sunset West 1																				
34	18	15	20.32	61x6	90%	17				x			x	x			x	Pseudacris sierra tadpoles and eggs and fly		
49	18			3x1	50%	18				x			x	x			x	Pseudacris sierra tadpoles and eggs and fly		
212*	20	15	20.32	91x5	50%	19				x			x	x		x	x	Pseudacris sierra tadpoles and eggs		
35	DRY																			
242*	21	10	17.78	15x5	90%	23				x			x	x			x	Pseudacris sierra tadpoles and eggs		
38	21	10	20.32	6x9	75%	24				x			x	x			x	Pseudacris sierra tadpoles and eggs and spider		
76*	21	1	101.60	3x3	40%	25														
75*	21	15	20.32	15x4	100%	26							x	x		x	x	Pseudacris sierra tadpoles and eggs		
80*	22	3	10.16	2x2	20%	27								x	x					
37	DRY					28														
216*	21	3	10.00	3x3	10%	29							x	x	x	x	x	Pseudacris sierra tadpoles and eggs		
42	21	3	10.16	6x6	90%	30							x	x			x	Pseudacris sierra tadpoles and eggs		
41	24	1	2.54	2x1	10%	31				x			x	x			x			
46	DRY					32														
229*	18	15	30.48	24x4	75%	1														
48	16	15	20.32	4x4	80%	2				x			x	x			x			
107*	16	15	25.40	24x4	80%	3				x			x	x			x			
47	17	13	20.32	12x12	95%	4				x			x	x				Pseudacris sierra tadpoles and eggs		
105*	DRY					5												Pseudacris sierra tadpoles and eggs and spider		
102*	17	6	15.24	6x6	80%	6	1000s			x			x	x		x	x	Pseudacris sierra tadpoles and eggs		
Stanford Ranch (SR-8)																				
291*	9	5	7.62	3x1	75%	1							x	x				Pseudacris sierra tadpoles and eggs and fly		
292*	9	5	10.16	3x1	50%	2							x	x				Pseudacris sierra tadpoles and eggs and fly		
146*	9	8	12.70	2x1	70%	3						x	x	x				Pseudacris sierra tadpoles and eggs and fly		
18	15	3	2.54	4x6	75%	4							x	x				Pseudacris sierra tadpoles and eggs and fly		
281*		3	5.08	2x1	25%	5							x	x				Spider		
20	14	8	15.24	5x3	75%	6				x			x	x				Pseudacris sierra tadpoles and eggs spider mile green ball algae		
19	15	3	5.08	3x1	75%	7							x	x				Pseudacris sierra tadpoles and eggs		
27	17	1	2.54	1x1	5%	8								x	x					
153*	17	3	7.62	9x2	80%	9							x	x			x	Pseudacris sierra tadpoles and eggs		
165*	16	5	10.16	4x4	95%	10				x			x	x		x	x	Pseudacris sierra tadpoles and eggs		
31	16	5	7.62	5x1	90%	11				x			x	x			x	Pseudacris sierra tadpoles and eggs		
30		20	35.56	3x3	100%	12				x			x	x	x	x	x	Pseudacris sierra tadpoles and eggs		
21	18	1	2.54	3x3	10%	13				x			x	x				Pseudacris sierra tadpoles and eggs		
305*	16	15	22.86	30x6	100%	14				x			x	x		x	x	Pseudacris sierra tadpoles and eggs lots of leaf litter		
33	17	8	15.24	15x2	75%	15							x	x	x		x	Pseudacris sierra tadpoles and eggs		
280*	17	5	10.16	5x2	95%	16							x	x				Pseudacris sierra tadpoles and eggs		

Project Site: Rocklin Open Space							Date: 2/6/2018							Quad: Roseville & Rocklin						
County: Placer							Time: 10:30 AM - 3:30 PM							Township: 11 North						
Collectors: Marisa Brills							Temp: 57°F							Range: 6E						
Permit #: TE-810380-6							Weather Conditions: Sunny, wind -5mph, 64% humidity							Section: 1-3, 10-15						
Vernal Pool #	Water Temp. (°C)	Water Depth (cm)	Estimated Maximum Depth (cm)	Present Surface Area (mxm)	Inundation (%)	Photo #	Crustacea						Turbellaria Flatworms	Insecta				Notes		
							Anostraca		Notostraca		Cladocera (Water Fleas)	Conchostraca (Clam Shrimps)		Copepoda (Copepods)	Ostracoda (Seed Shrimp)	Coleoptera			Hemiptera	Diptera
							Vernal Pool Fairy Shrimp (B. lynchii)	California Linsdaleia	Vernal Pool Tadpole Shrimp							Dytiscidae (Diving Water Beetles)	Haliplidae (Crawling Water Beetles)			
Sunset West (SW-2)																				
55	20	10	15.24	8x8	95%	11	1000s			x			x	x	x	x	Pseudacris sierra tadpoles and eggs			
131*	17	15		6x6	95%	12				x			x	x	x		Pseudacris sierra tadpoles, adults, and eggs			
Sunset West (SW-3)																				
118*	18	18	22.86	15x15	95%	17							x	x	x		Pseudacris sierra tadpoles and eggs, and bullfrogs tadpoles			
119*	20	10	15.24	6x6	70%	18							x	x	x		Pseudacris sierra tadpoles and eggs, and spider			
57	20	18	22.86	6x5	95%	19				x			x	x		x	Pseudacris sierra tadpoles and eggs, and bullfrog			
58	20	15	20.32	5x3	95%	20				x			x			x	Pseudacris sierra tadpoles and eggs, and spider			
Sunset West (SW-5)																				
249*	4	10	15.24	2x2	100%	21							x		x					
248*	22	5	10.16	6x6	50%	22							x	x	x					
Stanford Ranch (SR-20)																				
256*	16	10	15.24	12x5	100%	1				x			x	x		x	Pseudacris sierra tadpoles and eggs			
15	16	5		6x6	50%	2				x			x	x	x	x	Snail and bullfrog tadpole			

Project Site: Rocklin Open Space			Date: 2/16/2018			Quad: Roseville & Rocklin														
County: Placer			Time: 7:30 AM - 2:15 PM			Township: 11 North														
Collectors: Marisa Britts			Temp: 34-62°F			Range: 6E														
Permit #: TE-810380-6			Weather Conditions: Clear			Section: 1-3, 10-15														
Vernal Pool #	Water Temp. (°C)	Water Depth (cm)	Estimated Maximum Depth (cm)	Present Surface Area (mxm)	Inundation (%)	Photo #	Crustacea						Turbellaria Flatworms	Insecta				Notes		
							Anostraca		Notostraca		Cladocera (Water Fleas)	Conchostraca (Clam Shrimps)		Copepoda (Copepods)	Ostracoda (Seed Shrimp)	Coleoptera			Hemiptera	Diptera
							Vernal Pool Fairy Shrimp (B. lynchii)	California Linderella	Vernal Pool Tadpole Shrimp	Dytiscidae (Diving Water Beetles)						Haliplidae (Crawling Water Beetles)	Notonectidae (Backswimmers)		Chironomidae (Midge)	
Orchard Creek																				
68	DRY					10														
2	18	20		2x2	75%	11				x		x	x	x	x	x	x	Spider		
1	DRY					12														
63	DRY					13														
Stanford Ranch (SR-12)																				
5	DRY					1														
12	DRY					2														
138	DRY					3														
141	17	10	20.32	46x30	75%	4						x	x					Moth		
11	18	8	17.78	5x30	90%	5				x		x	x					Pseudacris sierra tadopoles		
193	19	8	10.16	5x2	60%	6						x	x	x				Pseudacris sierra tadopoles		
190	19	5	10.16	12x5	80%	7						x	x					Pseudacris sierra tadopoles		
10	DRY					8														
196	DRY					9														

Project Site: Rocklin Open Space				Date: 3/3/2018				Quad: Roseville & Rocklin												
County: Placer				Time: 9:00 AM - 2:00 PM				Township: 11 North												
Collectors: Marisa Brilts				Temp: 45-56°F				Range: 6E												
Permit #: TE-810380-6				Weather Conditions: Partly cloudy, wind - 8mps, humidity 73%				Section: 1-3, 10-15												
Vernal Pool #	Water Temp. (°C)	Water Depth (cm)	Estimated Maximum Depth (cm)	Present Surface Area (mxm)	Inundation (%)	Photo #	Crustacea						Turbellaria Flatworms	Insecta				Notes		
							Anostraca		Notostraca		Cladocera (Water Fleas)	Conchostraca (Clam Shrimps)		Copepoda (Copepods)	Ostracoda (Seed Shrimp)	Coleoptera			Hemiptera (Backswimmers)	Diptera (Midge)
							Vernal Pool Fairy Shrimp (B. lynchii)	California Linderella	Vernal Pool Tadpole Shrimp							Dytiscidae (Diving Water Beetles)	Halipidae (Crawling Water Beetles)			
Sunset West (SW-1)																				
41	17	5	10.16	12x5	75%	1							x	x				Pincher bug		
42	17	8	15.24	9x5	95%	2								x				Cloudy pool		
102	18	10	20.32	5x5	100%	3								x	x			Spider		
47	17	13	20.32	5x3	95%	4									x			Spider		
105	18	8	15.24	4x3	75%	5									x					
107	17	15		24x5	95%	6								x	x	x	x	Snail		
80	18	10	15.24	46x4	70%	7									x		x	Spider		
37	18	3	5.08	3x2	25%	8									x					
216	17	3	10.16	46x24	25%	9									x			Snail, spider		
75	18	8	15.24	24x5	90%	10				x					x		x			
76	19	5	10.16	6x6	95%	11								x	x			Leaf hopper		
242	16	20	30.48	61x9	100%	12				x				x	x	x	x	Dragonfly larvae and Pseudacris sierra tadpoles		
35	17	3	5.08	30x3	25%	last									x					
212	16	20	30.48	91x6	100%	13								x	x			Pseudacris sierra tadpoles		
34	17	10	25.40	30x6	98%	14								x	x					
49	18	4	10.16	3x3	75%	15								x				Pseudacris sierra tadpoles		
229	21		38.10	61x15	100%	16				x				x	x	x	x	Pseudacris sierra tadpoles		

Project Site: Rocklin Open Space							Date: 3/5/2018							Quad: Roseville & Rocklin						
County: Placer							Time: 1:30 PM							Township: 11 North						
Collectors: Marias Brills							Temp: 58°F							Range: 6E						
Permit #: TE-810380-6							Weather Conditions: Clear, slight wind at 2 mph							Section: 1-3, 10-15						
Vernal Pool #	Water Temp. (°C)	Water Depth (cm)	Estimated Maximum Depth (cm)	Present Surface Area (mxm)	Inundation (%)	Photo #	Crustacea							Turbellaria Flatworms	Insecta				Notes	
							Anostraca		Notostraca		Cladocera (Water Fleas)	Conchostraca (Clam Shrimps)	Copepoda (Copepods)		Ostracoda (Seed Shrimp)	Coleoptera		Hemiptera		Diptera
							Vernal Pool Fairy Shrimp (B. lynch)	California Linderella	Vernal Pool Tadpole Shrimp							Dytiscidae (Diving Water Beetles)	Haliplidae (Crawling Water Beetles)			
Sunset West (SW-4)																				
60	17	20	30.48	15x6	95%	1							x	x	x		Bithyniid snail and Pseudacris sierra tadpole and egg			
Sunset West (SW-6)																				
62	17	15	20.32	6x6	95%	2								x			Pseudacris sierra tadpole and eggs			
262	17	10	15.24	6x3	90%	3							x	x	x	x	Spider, mosquito and larva			

Project Site: Rocklin Open Space			Date: 3/12/2018			Quad: Roseville & Rocklin												
County: Placer			Time: 9:30 AM - 3:00 PM			Township: 11 North												
Collectors: Marisa Brilts			Temp: 62-72 °F			Range: 6E												
Permit #: TE-810380-6			Weather Conditions: Clear			Section: 1-3, 10-15												
Vernal Pool #	Water Temp. (°C)	Water Depth (cm)	Estimated Maximum Depth (cm)	Present Surface Area (mxm)	Inundation (%)	Photo #	Crustacea						Turbellaria Flatworms	Insecta				Notes
							Anostraca		Notostraca	Cladocera (Water Fleas)	Conchostraca (Clam Shrimps)	Copepoda (Copepods)		Ostracoda (Seed Shrimp)	Coleoptera		Hemiptera	
Vernal Pool Fairy Shrimp (B. jynchi)	California Linderella	Vernal Pool Tadpole Shrimp	Dytiscidae (Diving Water Beetles)	Haliplidae (Crawling Water Beetles)	Notonectidae (Backswimmers)	Chironomidae (Midge)												
Sunset West (SW-5)																		
248	15	8	15.24	5x5	60%	2							x	x	x		Pseudacris sierra tadpoles and eggs, leafhopper	
249	16	10	15.24	4x3	80%	1							x	x	x		Pseudacris sierra tadpoles and eggs	
Stanford Ranch (SR-20)																		
256	17	18	25.40	12x9	90%	w1			x			x	x	x	x	x	Pseudacris sierra tadpoles and eggs, spider	
15	18	5	10.16	5x5	75%	w2							x	x	x			
Stanford Ranch (SR-8)																		
280	21	5	10.16	4x2	90%	w6							x					
21	DRY					w7												
30	18	25	40.64	3x3	90%	w8			x				x	x		x	Mosquito larvae	
165	21	8	10.16	4x4	80%	w9							x			x		
153	21	5	10.16	3x3	40%	w10							x					
31	DRY					w11												
19	24	1	2.54	9x3	40%	w12							x					
281	DRY					w13												
20	26	5	10.16	8x3	50%	w14							x	x			Spider	
27	DRY					w15												
305	21	10	10.16	30x12	95%	w16							x				Snail	
33	DRY					w17												
146	26	3	5.08	3x3	5000%	w18							x	x				
18	DRY																	

Project Site: Rocklin Open Space							Date: 3/16/2018							Quad: Roseville & Rocklin						
County: Placer							Time: 9:30 AM - 2:30 PM							Township: 11 North						
Collectors: Marisa Britts							Temp: 42-52°F							Range: 6E						
Permit #: TE-810380-6							Weather Conditions: Light showers and wind at ~ 10 mph							Section: 1-3, 10-15						
Vernal Pool #	Water Temp. (°C)	Water Depth (cm)	Estimated Maximum Depth (cm)	Present Surface Area (mxm)	Inundation (%)	Photo #	Crustacea						Turbellaria Flatworms	Insecta					Notes	
							Anostraca		Notostraca		Cladocera (Water Fleas)	Conchostraca (Clam Shrimps)		Copepoda (Copepods)	Ostracoda (Seed Shrimp)	Coleoptera		Hemiptera		Diptera
							Vernal Pool Fairy Shrimp (B. lynchii)	California Landflea	Vernal Pool Tadpole Shrimp	Dytiscidae (Diving Water Beetles)						Halplidae (Crawling Water Beetles)				
Sunset West (SW-1)																				
38	10	15	20.32	6x5	100%	11							x		x			x	Mosquito larva , may fly	
46	10	10		12x6	95%	12													No species observed	
Stanford Ranch (SR-8)																				
281	11	5	12.70	4x2	100%	10							x	x				x		
291	10	8	15.24	5x2	100%	9							x					x	Muddy pool	
Sunset West (SW-3)																				
118	10	25	35.56	5x24	100%	1				x			x	x	x	x	x	x		
119	10	30	40.64	30x27	100%	2							x	x	x	x	x	x		
57	12	15	17.78	12x12	100%	4							x	x				x		
58	12	10	17.78	12x9	90%	5							x	x	x					
Sunset West (SW-2)																				
131	11	20	30.48	9x9	100%	7							x	x		x			Mosquito larva	
55	10	15	33.02	9x9	100%	6	100s						x		x	x			Pseudacris sierra eggs and tadpoles	

Appendix C — Vernal Pool Floristic Datasheets

Orchard Creek Preserve Area

2018 Plant Species Frequency for Rocklin - Orchard Creek

Species	Frequency
<i>Alopecurus saccatus</i>	25.00%
<i>Brodiaea elegans</i>	25.00%
<i>Centromadia fitchii</i>	25.00%
<i>Croton setiger</i>	25.00%
<i>Eleocharis macrostachya</i>	100.00%
<i>Eryngium vaseyi</i>	100.00%
<i>Festuca perennis</i>	100.00%
<i>Hordeum murinum</i>	25.00%
<i>Juncus bufonius</i>	25.00%
<i>Juncus sp.</i>	25.00%
<i>Lasthenia fremontii</i>	25.00%
<i>Lasthenia glaberrima</i>	25.00%
<i>Leontodon saxatilis</i>	50.00%
<i>Plagiobothrys stipitatus</i>	100.00%
<i>Psilocarphus brevissimus</i>	25.00%
<i>Ranunculus aquatilis</i>	50.00%
<i>Triteleia hyacinthina</i>	50.00%

2018 Monitoring Summary for Rocklin - Orchard Creek

Wetland	Cover	PI	CVVP Species	CVVP Cover	Species Richness	Native Species	Non-Native Species	Non-Native Cover
VP-001	85%	1.53	4 40.00%	84.76%	10	7	3	12.38%
VP-002	25%	1.16	4 66.67%	96.04%	6	5	1	1.98%
VP-063	80%	1.04	3 60.00%	98.76%	5	3	2	1.24%
VP-068	80%	1.13	7 63.64%	91.49%	11	10	1	2.13%

Wetland: VP-001

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>	
<i>Alopecurus saccatus</i>	0	Vegetative Cover:	85%
<i>Brodiaea elegans</i>	0	Prevalence Index:	1.53
<i>Centromadia fitchii</i>	0	CRAM Richness:	4
<i>Croton setiger</i>	0	CRAM Cover:	84.76%
<i>Eleocharis macrostachya</i>	3	% CVVP Species:	40.00%
<i>Eryngium vaseyi</i>	1	CVVP Cover:	84.76%
<i>Festuca perennis</i>	1	Species Richness:	10
<i>Hordeum murinum</i>	1	Native Species:	7
<i>Leontodon saxatilis</i>	0	Non-Native Species:	3
<i>Plagiobothrys stipitatus</i>	1	Non-Native Cover:	12.38%

Wetland: VP-002

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Eleocharis macrostachya</i>	4	Vegetative Cover: 25%
<i>Eryngium vaseyi</i>	2	Prevalence Index: 1.16
<i>Festuca perennis</i>	1	CRAM Richness: 3
<i>Plagiobothrys stipitatus</i>	4	CRAM Cover: 94.06%
<i>Ranunculus aquatilis</i>	1	% CVVP Species: 66.67%
<i>Triteleia hyacinthina</i>	1	CVVP Cover: 96.04%
		Species Richness: 6
		Native Species: 5
		Non-Native Species: 1
		Non-Native Cover: 1.98%

Wetland: VP-063

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Eleocharis macrostachya</i>	4	Vegetative Cover: 80%
<i>Eryngium vaseyi</i>	0	Prevalence Index: 1.04
<i>Festuca perennis</i>	0	CRAM Richness: 3
<i>Leontodon saxatilis</i>	0	CRAM Cover: 98.76%
<i>Plagiobothrys stipitatus</i>	2	% CVVP Species: 60.00%
		CVVP Cover: 98.76%
		Species Richness: 5
		Native Species: 3
		Non-Native Species: 2
		Non-Native Cover: 1.24%

Wetland: VP-068

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Eleocharis macrostachya</i>	2	Vegetative Cover: 80%
<i>Eryngium vaseyi</i>	1	Prevalence Index: 1.13
<i>Festuca perennis</i>	1	CRAM Richness: 6
<i>Juncus bufonius</i>	1	CRAM Cover: 89.36%
<i>Juncus sp.</i>	1	% CVVP Species: 63.64%
<i>Lasthenia fremontii</i>	3	CVVP Cover: 91.49%
<i>Lasthenia glaberrima</i>	1	Species Richness: 11
<i>Plagiobothrys stipitatus</i>	4	Native Species: 10
<i>Psilocarphus brevissimus</i>	1	Non-Native Species: 1
<i>Ranunculus aquatilis</i>	1	Non-Native Cover: 2.13%
<i>Triteleia hyacinthina</i>	1	

Stanford Ranch Preserve Area

2018 Plant Species Frequency for Rocklin - Stanford Ranch

Species	Frequency
<i>Alopecurus saccatus</i>	11.11%
<i>Briza minor</i>	22.22%
<i>Brodiaea elegans</i>	7.41%
<i>Brodiaea minor</i>	25.93%
<i>Castilleja attenuata</i>	7.41%
<i>Castilleja campestris</i>	3.70%
<i>Convolvulus arvensis</i>	14.81%
<i>Crassula aquatica</i>	48.15%
<i>Deschampsia danthonioides</i>	7.41%
<i>Digitaria sanguinalis</i>	3.70%
<i>Downingia bicornuta</i>	3.70%
<i>Downingia cuspidata</i>	3.70%
<i>Downingia ornatissima</i>	55.56%
<i>Eleocharis acicularis</i>	11.11%
<i>Eleocharis macrostachya</i>	37.04%
<i>Elymus caput-medusae</i>	11.11%
<i>Erodium botrys</i>	3.70%
<i>Eryngium vaseyi</i>	70.37%
<i>Festuca bromoides</i>	18.52%
<i>Festuca perennis</i>	59.26%
<i>Holocarpha virgata</i>	7.41%
<i>Hordeum marinum</i>	48.15%
<i>Juncus bufonius</i>	14.81%
<i>Juncus sp.</i>	7.41%
<i>Lasthenia californica</i>	25.93%
<i>Lasthenia fremontii</i>	70.37%
<i>Lasthenia glaberrima</i>	18.52%
<i>Layia fremontii</i>	3.70%
<i>Leontodon saxatilis</i>	70.37%
<i>Lythrum hyssopifolia</i>	55.56%
<i>Mentha pulegium</i>	3.70%
<i>Navarretia intertexta</i>	11.11%
<i>Navarretia leucocephala</i>	22.22%
<i>Paspalum dilatatum</i>	3.70%
<i>Pilularia americana</i>	11.11%
<i>Plagiobothrys greenei</i>	3.70%

<i>Plagiobothrys stipitatus</i>	51.85%
<i>Plantago elongata</i>	3.70%
<i>Pogogyne zizyphoroides</i>	11.11%
<i>Polygonum sp.</i>	3.70%
<i>Polypogon monspeliensis</i>	3.70%
<i>Populus fremontii</i>	3.70%
<i>Psilocarphus brevissimus</i>	48.15%
<i>Ranunculus bonariensis</i>	29.63%
<i>Rumex crispus</i>	18.52%
<i>Rumex pulcher</i>	14.81%
<i>Trifolium depauperatum</i>	11.11%
<i>Trifolium dubium</i>	7.41%
<i>Trifolium sp.</i>	3.70%
<i>Triglochin scilloides</i>	7.41%
<i>Triteleia hyacinthina</i>	66.67%
<i>Veronica peregrina</i>	3.70%
<i>Vicia sp.</i>	3.70%

2018 Monitoring Summary for Rocklin - Stanford Ranch

Wetland	Cover	PI	CVVP Species	CVVP Cover	Species Richness	Native Species	Non-Native Species	Non-Native Cover
VP-005	50%	1.31	10 62.50%	80.51%	16	10	6	19.49%
VP-010	95%	1.22	6 66.67%	92.66%	9	7	2	6.42%
VP-011	50%	1.10	8 80.00%	98.10%	10	8	2	1.90%
VP-012	95%	1.83	6 42.86%	84.56%	14	6	8	15.44%
VP-015	90%	2.07	6 50.00%	70.07%	12	6	6	29.93%
VP-018	75%	1.97	5 35.71%	61.45%	14	8	6	36.87%
VP-019	80%	1.47	5 33.33%	82.14%	15	9	6	11.43%
VP-020	50%	1.24	8 80.00%	98.75%	10	9	1	0.63%
VP-021	90%	2.97	3 25.00%	8.65%	12	6	6	85.10%
VP-027	65%	2.64	5 38.46%	42.17%	13	8	5	54.22%
VP-030	50%	1.08	1 25.00%	95.63%	4	1	3	4.37%
VP-031	80%	1.07	7 77.78%	98.89%	9	7	2	1.11%
VP-033	85%	1.33	6 50.00%	90.42%	12	6	6	9.58%
VP-138	90%	1.34	4 33.33%	83.66%	12	4	8	16.34%
VP-141	75%	1.44	2 25.00%	75.93%	8	4	4	12.96%
VP-146	75%	1.63	8 80.00%	78.86%	10	8	2	21.14%
VP-153	95%	2.48	7 53.85%	50.27%	13	8	5	46.45%
VP-165	75%	1.22	5 50.00%	94.32%	10	6	4	2.27%
VP-190	75%	1.19	9 81.82%	95.36%	11	10	1	3.97%
VP-193	50%	1.34	8 80.00%	76.88%	10	8	2	23.13%
VP-196	90%	1.73	8 72.73%	78.15%	11	8	3	21.85%
VP-256	75%	1.72	11 73.33%	86.12%	15	12	3	13.47%
VP-280	80%	1.41	8 72.73%	89.42%	11	8	3	10.58%
VP-281	60%	3.25	3 27.27%	32.76%	11	6	5	60.34%
VP-291	90%	1.42	8 66.67%	95.04%	12	9	3	4.61%
VP-292	80%	2.50	1 50.00%	50.00%	2	1	1	50.00%
VP-305	60%	1.23	5 50.00%	93.06%	10	7	3	1.39%

Wetland: VP-005

Species	Cover Class	Statistics
<i>Briza minor</i>	0	Vegetative Cover: 50%
<i>Convolvulus arvensis</i>	0	Prevalence Index: 1.31
<i>Crassula aquatica</i>	1	CRAM Richness: 9
<i>Downingia ornatissima</i>	1	CRAM Cover: 80.08%
<i>Eleocharis macrostachya</i>	3	% CVVP Species: 62.50%
<i>Eryngium vaseyi</i>	1	CVVP Cover: 80.51%
<i>Hordeum marinum</i>	1	Species Richness: 16
<i>Lasthenia fremontii</i>	3	Native Species: 10
<i>Lasthenia glaberrima</i>	1	Non-Native Species: 6
<i>Leontodon saxatilis</i>	1	Non-Native Cover: 19.49%
<i>Lythrum hyssopifolia</i>	2	
<i>Navarretia intertexta</i>	0	
<i>Plagiobothrys stipitatus</i>	1	
<i>Psilocarphus brevissimus</i>	1	
<i>Rumex crispus</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-010

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Alopecurus saccatus</i>	0	Vegetative Cover: 95%
<i>Brodiaea minor</i>	0	Prevalence Index: 1.22
<i>Eryngium vaseyi</i>	1	CRAM Richness: 6
<i>Hordeum marinum</i>	0	CRAM Cover: 88.07%
<i>Lasthenia fremontii</i>	3	% CVVP Species: 66.67%
<i>Lythrum hyssopifolia</i>	1	CVVP Cover: 92.66%
<i>Navarretia leucocephala</i>	1	Species Richness: 9
<i>Plagiobothrys stipitatus</i>	1	Native Species: 7
<i>Triteleia hyacinthina</i>	1	Non-Native Species: 2
		Non-Native Cover: 6.42%

Wetland: VP-011

Species	Cover Class	Statistics
<i>Crassula aquatica</i>	1	Vegetative Cover: 50%
<i>Downingia ornatissima</i>	3	Prevalence Index: 1.10
<i>Eryngium vaseyi</i>	0	CRAM Richness: 7
<i>Leontodon saxatilis</i>	0	CRAM Cover: 92.38%
<i>Lythrum hyssopifolia</i>	0	% CVVP Species: 80.00%
<i>Navarretia leucocephala</i>	0	CVVP Cover: 98.10%
<i>Pilularia americana</i>	1	Species Richness: 10
<i>Plagiobothrys stipitatus</i>	1	Native Species: 8
<i>Ranunculus bonariensis</i>	0	Non-Native Species: 2
<i>Triteleia hyacinthina</i>	1	Non-Native Cover: 1.90%

Wetland: VP-012

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Convolvulus arvensis</i>	0	Vegetative Cover: 95%
<i>Crassula aquatica</i>	1	Prevalence Index: 1.83
<i>Downingia ornatissima</i>	1	CRAM Richness: 4
<i>Eleocharis acicularis</i>	3	CRAM Cover: 29.53%
<i>Eryngium vaseyi</i>	0	% CVVP Species: 42.86%
<i>Festuca bromoides</i>	0	CVVP Cover: 84.56%
<i>Festuca perennis</i>	0	Species Richness: 14
<i>Hordeum marinum</i>	0	Native Species: 6
<i>Leontodon saxatilis</i>	1	Non-Native Species: 8
<i>Lythrum hyssopifolia</i>	1	Non-Native Cover: 15.44%
<i>Plagiobothrys stipitatus</i>	2	
<i>Rumex crispus</i>	1	
<i>Rumex pulcher</i>	0	
<i>Triteleia hyacinthina</i>	1	

Wetland: VP-015

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Briza minor</i>	0	Vegetative Cover: 90%
<i>Downingia ornatissima</i>	0	Prevalence Index: 2.07
<i>Eleocharis macrostachya</i>	2	CRAM Richness: 5
<i>Eryngium vaseyi</i>	2	CRAM Cover: 69.34%
<i>Festuca perennis</i>	1	% CVVP Species: 50.00%
<i>Hordeum marinum</i>	0	CVVP Cover: 70.07%
<i>Lasthenia californica</i>	2	Species Richness: 12
<i>Lasthenia fremontii</i>	2	Native Species: 6
<i>Leontodon saxatilis</i>	0	Non-Native Species: 6
<i>Ranunculus bonariensis</i>	0	Non-Native Cover: 29.93%
<i>Trifolium dubium</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-018

Species	Cover Class	Statistics
<i>Brodiaea elegans</i>	0	Vegetative Cover: 75%
<i>Elymus caput-medusae</i>	0	Prevalence Index: 1.97
<i>Eryngium vaseyi</i>	0	CRAM Richness: 4
<i>Festuca bromoides</i>	0	CRAM Cover: 60.89%
<i>Festuca perennis</i>	2	% CVVP Species: 35.71%
<i>Holocarpha virgata</i>	0	CVVP Cover: 61.45%
<i>Hordeum marinum</i>	0	Species Richness: 14
<i>Lasthenia fremontii</i>	3	Native Species: 8
<i>Leontodon saxatilis</i>	2	Non-Native Species: 6
<i>Lythrum hyssopifolia</i>	0	Non-Native Cover: 36.87%
<i>Pogogyne zizyphoroides</i>	0	
<i>Psilocarphus brevissimus</i>	2	
<i>Trifolium depauperatum</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-019

Species	Cover Class	Statistics
<i>Briza minor</i>	0	Vegetative Cover: 80%
<i>Brodiaea minor</i>	0	Prevalence Index: 1.47
<i>Castilleja attenuata</i>	0	CRAM Richness: 5
<i>Downingia ornatissima</i>	0	CRAM Cover: 82.14%
<i>Elymus caput-medusae</i>	0	% CVVP Species: 33.33%
<i>Festuca bromoides</i>	1	CVVP Cover: 82.14%
<i>Holocarpha virgata</i>	1	Species Richness: 15
<i>Hordeum marinum</i>	0	Native Species: 9
<i>Juncus bufonius</i>	0	Non-Native Species: 6
<i>Lasthenia fremontii</i>	3	Non-Native Cover: 11.43%
<i>Leontodon saxatilis</i>	1	
<i>Lythrum hyssopifolia</i>	0	
<i>Psilocarphus brevissimus</i>	2	
<i>Triglochin scilloides</i>	1	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-020

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Brodiaea minor</i>	0	Vegetative Cover: 50%
<i>Deschampsia danthonioides</i>	0	Prevalence Index: 1.24
<i>Downingia cuspidata</i>	1	CRAM Richness: 9
<i>Eryngium vaseyi</i>	2	CRAM Cover: 99.38%
<i>Festuca perennis</i>	0	% CVVP Species: 80.00%
<i>Lasthenia fremontii</i>	3	CVVP Cover: 98.75%
<i>Plagiobothrys stipitatus</i>	1	Species Richness: 10
<i>Psilocarphus brevissimus</i>	2	Native Species: 9
<i>Ranunculus bonariensis</i>	0	Non-Native Species: 1
<i>Triglochin scilloides</i>	1	Non-Native Cover: 0.63%

Wetland: VP-021

Species	Cover Class	Statistics
<i>Briza minor</i>	0	Vegetative Cover: 90%
<i>Brodiaea minor</i>	1	Prevalence Index: 2.97
<i>Downingia ornatissima</i>	1	CRAM Richness: 3
<i>Festuca bromoides</i>	1	CRAM Cover: 8.65%
<i>Festuca perennis</i>	4	% CVVP Species: 25.00%
<i>Hordeum marinum</i>	1	CVVP Cover: 8.65%
<i>Juncus bufonius</i>	1	Species Richness: 12
<i>Leontodon saxatilis</i>	2	Native Species: 6
<i>Lythrum hyssopifolia</i>	1	Non-Native Species: 6
<i>Pogogyne zizyphoroides</i>	1	Non-Native Cover: 85.10%
<i>Trifolium depauperatum</i>	0	
<i>Triteleia hyacinthina</i>	1	

Wetland: VP-027

Species	Cover Class	Statistics
<i>Castilleja campestris</i>	0	Vegetative Cover: 65%
<i>Crassula aquatica</i>	0	Prevalence Index: 2.64
<i>Elymus caput-medusae</i>	1	CRAM Richness: 5
<i>Festuca perennis</i>	1	CRAM Cover: 42.17%
<i>Hordeum marinum</i>	0	% CVVP Species: 38.46%
<i>Juncus bufonius</i>	0	CVVP Cover: 42.17%
<i>Lasthenia fremontii</i>	2	Species Richness: 13
<i>Leontodon saxatilis</i>	2	Native Species: 8
<i>Pogogyne zizyphoroides</i>	0	Non-Native Species: 5
<i>Polygonum sp.</i>	0	Non-Native Cover: 54.22%
<i>Trifolium depauperatum</i>	0	
<i>Triteleia hyacinthina</i>	0	
<i>Veronica peregrina</i>	0	

Wetland: VP-030

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Eleocharis macrostachya</i>	5	Vegetative Cover: 50%
<i>Lythrum hyssopifolia</i>	0	Prevalence Index: 1.08
<i>Paspalum dilatatum</i>	1	CRAM Richness: 1
<i>Polypogon monspeliensis</i>	0	CRAM Cover: 95.63%
		% CVVP Species: 25.00%
		CVVP Cover: 95.63%
		Species Richness: 4
		Native Species: 1
		Non-Native Species: 3
		Non-Native Cover: 4.37%

Wetland: VP-031

Species	Cover Class	Statistics
<i>Downingia ornatissima</i>	2	Vegetative Cover: 80%
<i>Eryngium vaseyi</i>	1	Prevalence Index: 1.07
<i>Festuca perennis</i>	0	CRAM Richness: 6
<i>Lasthenia fremontii</i>	4	CRAM Cover: 98.33%
<i>Leontodon saxatilis</i>	0	% CVVP Species: 77.78%
<i>Plagiobothrys stipitatus</i>	0	CVVP Cover: 98.89%
<i>Psilocarphus brevissimus</i>	1	Species Richness: 9
<i>Ranunculus bonariensis</i>	1	Native Species: 7
<i>Triteleia hyacinthina</i>	0	Non-Native Species: 2
		Non-Native Cover: 1.11%

Wetland: VP-033

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Convolvulus arvensis</i>	1	Vegetative Cover: 85%
<i>Downingia ornatissima</i>	1	Prevalence Index: 1.33
<i>Eleocharis macrostachya</i>	2	CRAM Richness: 5
<i>Eryngium vaseyi</i>	1	CRAM Cover: 89.82%
<i>Festuca perennis</i>	0	% CVVP Species: 50.00%
<i>Lasthenia fremontii</i>	3	CVVP Cover: 90.42%
<i>Leontodon saxatilis</i>	1	Species Richness: 12
<i>Lythrum hyssopifolia</i>	0	Native Species: 6
<i>Plagiobothrys stipitatus</i>	2	Non-Native Species: 6
<i>Rumex crispus</i>	0	Non-Native Cover: 9.58%
<i>Rumex pulcher</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-138

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Convolvulus arvensis</i>	0	Vegetative Cover: 90%
<i>Eleocharis macrostachya</i>	3	Prevalence Index: 1.34
<i>Erodium botrys</i>	1	CRAM Richness: 4
<i>Festuca perennis</i>	0	CRAM Cover: 83.66%
<i>Hordeum marinum</i>	1	% CVVP Species: 33.33%
<i>Lasthenia fremontii</i>	2	CVVP Cover: 83.66%
<i>Lasthenia glaberrima</i>	2	Species Richness: 12
<i>Leontodon saxatilis</i>	0	Native Species: 4
<i>Lythrum hyssopifolia</i>	1	Non-Native Species: 8
<i>Plagiobothrys stipitatus</i>	2	Non-Native Cover: 16.34%
<i>Rumex crispus</i>	1	
<i>Rumex pulcher</i>	1	

Wetland: VP-141

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Digitaria sanguinalis</i>	1	Vegetative Cover: 75%
<i>Eleocharis macrostachya</i>	3	Prevalence Index: 1.44
<i>Eryngium vaseyi</i>	1	CRAM Richness: 3
<i>Hordeum marinum</i>	0	CRAM Cover: 81.48%
<i>Mentha pulegium</i>	1	% CVVP Species: 25.00%
<i>Plagiobothrys greenei</i>	1	CVVP Cover: 75.93%
<i>Trifolium sp.</i>	1	Species Richness: 8
<i>Vicia sp.</i>	0	Native Species: 4
		Non-Native Species: 4
		Non-Native Cover: 12.96%

Wetland: VP-146

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Alopecurus saccatus</i>	1	Vegetative Cover: 75%
<i>Downingia ornatissima</i>	1	Prevalence Index: 1.63
<i>Eleocharis macrostachya</i>	2	CRAM Richness: 7
<i>Festuca perennis</i>	1	CRAM Cover: 75.43%
<i>Lasthenia fremontii</i>	3	% CVVP Species: 80.00%
<i>Leontodon saxatilis</i>	2	CVVP Cover: 78.86%
<i>Navarretia intertexta</i>	1	Species Richness: 10
<i>Plagiobothrys stipitatus</i>	0	Native Species: 8
<i>Psilocarphus brevissimus</i>	1	Non-Native Species: 2
<i>Triteleia hyacinthina</i>	1	Non-Native Cover: 21.14%

Wetland: VP-153

Species	Cover Class	Statistics
<i>Briza minor</i>	0	Vegetative Cover: 95%
<i>Brodiaea elegans</i>	1	Prevalence Index: 2.48
<i>Crassula aquatica</i>	0	CRAM Richness: 6
<i>Downingia ornatissima</i>	0	CRAM Cover: 49.73%
<i>Eryngium vaseyi</i>	1	% CVVP Species: 53.85%
<i>Festuca perennis</i>	1	CVVP Cover: 50.27%
<i>Lasthenia californica</i>	3	Species Richness: 13
<i>Lasthenia fremontii</i>	3	Native Species: 8
<i>Leontodon saxatilis</i>	0	Non-Native Species: 5
<i>Lythrum hyssopifolia</i>	0	Non-Native Cover: 46.45%
<i>Psilocarphus brevissimus</i>	1	
<i>Ranunculus bonariensis</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-165

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Crassula aquatica</i>	0	Vegetative Cover: 75%
<i>Downingia ornatissima</i>	4	Prevalence Index: 1.22
<i>Festuca perennis</i>	0	CRAM Richness: 5
<i>Hordeum marinum</i>	0	CRAM Cover: 94.32%
<i>Layia fremontii</i>	1	% CVVP Species: 50.00%
<i>Leontodon saxatilis</i>	0	CVVP Cover: 94.32%
<i>Lythrum hyssopifolia</i>	0	Species Richness: 10
<i>Plantago elongata</i>	1	Native Species: 6
<i>Psilocarphus brevissimus</i>	2	Non-Native Species: 4
<i>Ranunculus bonariensis</i>	0	Non-Native Cover: 2.27%

Wetland: VP-190

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>	
<i>Alopecurus saccatus</i>	0	Vegetative Cover:	75%
<i>Brodiaea minor</i>	0	Prevalence Index:	1.19
<i>Crassula aquatica</i>	2	CRAM Richness:	10
<i>Downingia ornatissima</i>	0	CRAM Cover:	96.03%
<i>Eryngium vaseyi</i>	1	% CVVP Species:	81.82%
<i>Lasthenia californica</i>	1	CVVP Cover:	95.36%
<i>Lasthenia fremontii</i>	1	Species Richness:	11
<i>Navarretia intertexta</i>	2	Native Species:	10
<i>Navarretia leucocephala</i>	2	Non-Native Species:	1
<i>Pilularia americana</i>	1	Non-Native Cover:	3.97%
<i>Psilocarphus brevissimus</i>	2		

Wetland: VP-193

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Crassula aquatica</i>	2	Vegetative Cover: 50%
<i>Downingia ornatissima</i>	1	Prevalence Index: 1.34
<i>Eryngium vaseyi</i>	1	CRAM Richness: 7
<i>Hordeum marinum</i>	1	CRAM Cover: 73.13%
<i>Lasthenia fremontii</i>	2	% CVVP Species: 80.00%
<i>Lythrum hyssopifolia</i>	2	CVVP Cover: 76.88%
<i>Navarretia leucocephala</i>	2	Species Richness: 10
<i>Plagiobothrys stipitatus</i>	1	Native Species: 8
<i>Psilocarphus brevissimus</i>	1	Non-Native Species: 2
<i>Triteleia hyacinthina</i>	1	Non-Native Cover: 23.13%

Wetland: VP-196

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Crassula aquatica</i>	1	Vegetative Cover: 90%
<i>Downingia ornatissima</i>	1	Prevalence Index: 1.73
<i>Eleocharis acicularis</i>	1	CRAM Richness: 6
<i>Eryngium vaseyi</i>	1	CRAM Cover: 73.51%
<i>Lasthenia californica</i>	2	% CVVP Species: 72.73%
<i>Lasthenia fremontii</i>	2	CVVP Cover: 78.15%
<i>Leontodon saxatilis</i>	0	Species Richness: 11
<i>Lythrum hyssopifolia</i>	0	Native Species: 8
<i>Plagiobothrys stipitatus</i>	2	Non-Native Species: 3
<i>Psilocarphus brevissimus</i>	2	Non-Native Cover: 21.85%
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-256

Species	Cover Class	Statistics
<i>Crassula aquatica</i>	0	Vegetative Cover: 75%
<i>Downingia bicornuta</i>	0	Prevalence Index: 1.72
<i>Eleocharis macrostachya</i>	3	CRAM Richness: 10
<i>Eryngium vaseyi</i>	3	CRAM Cover: 85.71%
<i>Festuca perennis</i>	0	% CVVP Species: 73.33%
<i>Juncus sp.</i>	0	CVVP Cover: 86.12%
<i>Lasthenia californica</i>	2	Species Richness: 15
<i>Lasthenia fremontii</i>	1	Native Species: 12
<i>Lasthenia glaberrima</i>	1	Non-Native Species: 3
<i>Pilularia americana</i>	0	Non-Native Cover: 13.47%
<i>Plagiobothrys stipitatus</i>	1	
<i>Psilocarphus brevissimus</i>	2	
<i>Ranunculus bonariensis</i>	1	
<i>Trifolium dubium</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-280

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Crassula aquatica</i>	4	Vegetative Cover: 80%
<i>Eleocharis acicularis</i>	0	Prevalence Index: 1.41
<i>Eleocharis macrostachya</i>	0	CRAM Richness: 7
<i>Eryngium vaseyi</i>	2	CRAM Cover: 89.10%
<i>Festuca perennis</i>	0	% CVVP Species: 72.73%
<i>Lasthenia glaberrima</i>	1	CVVP Cover: 89.42%
<i>Leontodon saxatilis</i>	2	Species Richness: 11
<i>Lythrum hyssopifolia</i>	0	Native Species: 8
<i>Navarretia leucocephala</i>	2	Non-Native Species: 3
<i>Plagiobothrys stipitatus</i>	1	Non-Native Cover: 10.58%
<i>Psilocarphus brevissimus</i>	3	

Wetland: VP-281

Species	Cover Class	Statistics
<i>Briza minor</i>	0	Vegetative Cover: 60%
<i>Brodiaea minor</i>	1	Prevalence Index: 3.25
<i>Castilleja attenuata</i>	0	CRAM Richness: 3
<i>Crassula aquatica</i>	0	CRAM Cover: 32.76%
<i>Eryngium vaseyi</i>	2	% CVVP Species: 27.27%
<i>Festuca bromoides</i>	1	CVVP Cover: 32.76%
<i>Festuca perennis</i>	0	Species Richness: 11
<i>Juncus bufonius</i>	0	Native Species: 6
<i>Lasthenia californica</i>	2	Non-Native Species: 5
<i>Leontodon saxatilis</i>	2	Non-Native Cover: 60.34%
<i>Triteleia hyacinthina</i>	1	

Wetland: VP-291

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Brodiaea minor</i>	0	Vegetative Cover: 90%
<i>Crassula aquatica</i>	0	Prevalence Index: 1.42
<i>Deschampsia danthonioides</i>	0	CRAM Richness: 8
<i>Eryngium vaseyi</i>	3	CRAM Cover: 93.26%
<i>Festuca perennis</i>	0	% CVVP Species: 66.67%
<i>Hordeum marinum</i>	1	CVVP Cover: 95.04%
<i>Lasthenia fremontii</i>	3	Species Richness: 12
<i>Leontodon saxatilis</i>	1	Native Species: 9
<i>Navarretia leucocephala</i>	0	Non-Native Species: 3
<i>Plagiobothrys stipitatus</i>	2	Non-Native Cover: 4.61%
<i>Ranunculus bonariensis</i>	3	
<i>Triteleia hyacinthina</i>	1	

Wetland: VP-292

Species	Cover Class	Statistics
<i>Lasthenia fremontii</i>	3	Vegetative Cover: 80%
<i>Leontodon saxatilis</i>	3	Prevalence Index: 2.50
		CRAM Richness: 1
		CRAM Cover: 50.00%
		% CVVP Species: 50.00%
		CVVP Cover: 50.00%
		Species Richness: 2
		Native Species: 1
		Non-Native Species: 1
		Non-Native Cover: 50.00%

Wetland: VP-305

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Downingia ornatissima</i>	1	Vegetative Cover: 60%
<i>Eleocharis macrostachya</i>	2	Prevalence Index: 1.23
<i>Eryngium vaseyi</i>	2	CRAM Richness: 5
<i>Juncus sp.</i>	1	CRAM Cover: 93.06%
<i>Lasthenia californica</i>	0	% CVVP Species: 50.00%
<i>Lasthenia fremontii</i>	1	CVVP Cover: 93.06%
<i>Lasthenia glaberrima</i>	4	Species Richness: 10
<i>Populus fremontii</i>	1	Native Species: 7
<i>Rumex crispus</i>	0	Non-Native Species: 3
<i>Rumex pulcher</i>	0	Non-Native Cover: 1.39%

Sunset West Preserve Area

2018 Plant Species Frequency for Rocklin - Sunset West

Species	Frequency
<i>Aira caryophyllea</i>	16.13%
<i>Alopecurus saccatus</i>	9.68%
<i>Azolla sp.</i>	3.23%
<i>Briza minor</i>	19.35%
<i>Brodiaea elegans</i>	3.23%
<i>Brodiaea minor</i>	25.81%
<i>Bromus hordeaceus</i>	3.23%
<i>Centromadia fitchii</i>	16.13%
<i>Convolvulus arvensis</i>	22.58%
<i>Crassula aquatica</i>	54.84%
<i>Croton setiger</i>	9.68%
<i>Cynosurus echinatus</i>	3.23%
<i>Cyperus eragrostis</i>	6.45%
<i>Deschampsia danthonioides</i>	12.90%
<i>Downingia bicornuta</i>	19.35%
<i>Downingia ornatissima</i>	48.39%
<i>Eleocharis acicularis</i>	22.58%
<i>Eleocharis macrostachya</i>	90.32%
<i>Elymus caput-medusae</i>	19.35%
<i>Erodium botrys</i>	6.45%
<i>Eryngium vaseyi</i>	87.10%
<i>Festuca bromoides</i>	25.81%
<i>Festuca perennis</i>	48.39%
<i>Glyceria declinata</i>	6.45%
<i>Gratiola ebracteata</i>	3.23%
<i>Holocarpha virgata</i>	3.23%
<i>Hordeum marinum</i>	41.94%
<i>Juncus oxymeris</i>	6.45%
<i>Juncus sp.</i>	12.90%
<i>Lasthenia fremontii</i>	54.84%
<i>Lasthenia glaberrima</i>	25.81%
<i>Lathyrus angulatus</i>	22.58%
<i>Layia fremontii</i>	3.23%
<i>Leontodon saxatilis</i>	70.97%
<i>Lysimachia arvensis</i>	3.23%
<i>Lythrum hyssopifolia</i>	45.16%

<i>Mentha pulegium</i>	12.90%
<i>Mentha sp.</i>	6.45%
<i>Mimulus guttatus</i>	3.23%
<i>Navarretia leucocephala</i>	3.23%
<i>Pilularia americana</i>	3.23%
<i>Plagiobothrys stipitatus</i>	87.10%
<i>Polypogon monspeliensis</i>	19.35%
<i>Populus fremontii</i>	3.23%
<i>Psilocarphus brevissimus</i>	41.94%
<i>Ranunculus aquatilis</i>	12.90%
<i>Ranunculus bonariensis</i>	38.71%
<i>Rumex crispus</i>	29.03%
<i>Rumex pulcher</i>	3.23%
<i>Salix exigua</i>	3.23%
<i>Spergularia rubra</i>	9.68%
<i>Trichostema lanceolatum</i>	9.68%
<i>Trifolium dubium</i>	9.68%
<i>Triteleia hyacinthina</i>	45.16%
<i>Vicia sp.</i>	6.45%

2018 Monitoring Summary for Rocklin - Sunset West

Wetland	Cover	PI	CVVP Species	CVVP Cover	Species Richness	Native Species	Non-Native Species	Non-Native Cover
VP-034	98%	1.59	3 37.50%	96.84%	8	5	3	1.90%
VP-035	95%	3.52	4 23.53%	29.93%	17	7	10	68.03%
VP-037	88%	2.43	2 20.00%	77.11%	10	2	8	22.89%
VP-038	90%	1.80	4 33.33%	81.15%	12	8	4	11.48%
VP-041	75%	1.59	9 47.37%	90.26%	19	11	8	5.19%
VP-042	65%	1.35	9 75.00%	91.98%	12	10	2	4.32%
VP-046	90%	4.61	2 28.57%	6.86%	7	4	3	86.27%
VP-047	74%	1.16	11 64.71%	95.05%	17	12	5	4.50%
VP-048	80%	1.62	4 30.77%	91.91%	13	7	6	6.36%
VP-049	90%	1.09	10 71.43%	98.00%	14	12	2	1.00%
VP-055	98%	1.10	7 50.00%	96.00%	14	9	5	2.86%
VP-057	95%	1.27	6 46.15%	96.20%	13	7	6	3.26%
VP-058	85%	1.47	8 88.89%	99.44%	9	8	1	0.56%
VP-060	98%	1.98	10 62.50%	81.02%	16	10	6	18.98%
VP-062	75%	1.25	6 54.55%	96.79%	11	7	4	2.56%
VP-075	63%	1.76	8 53.33%	80.00%	15	10	5	2.70%
VP-076	50%	1.41	4 44.44%	86.49%	9	4	5	13.51%
VP-080	40%	1.96	9 56.25%	72.79%	16	11	5	25.74%
VP-102	85%	1.20	9 81.82%	95.04%	11	9	2	4.96%
VP-105	75%	1.64	9 60.00%	69.13%	15	9	6	30.87%
VP-107	75%	1.33	7 63.64%	95.16%	11	8	3	4.30%
VP-118	75%	1.02	2 50.00%	92.13%	4	3	1	1.12%
VP-119	80%	1.07	7 58.33%	97.27%	12	10	2	1.09%
VP-131	90%	1.34	6 46.15%	89.63%	13	7	6	9.76%
VP-212	95%	1.06	7 87.50%	99.37%	8	7	1	0.63%
VP-216	85%	1.33	6 31.58%	77.67%	19	9	10	20.93%
VP-229	80%	1.08	9 69.23%	98.12%	13	9	4	1.88%
VP-242	75%	1.07	4 36.36%	18.18%	11	8	3	15.70%
VP-248	70%	1.25	8 66.67%	95.45%	12	8	4	4.55%
VP-249	70%	1.20	5 71.43%	84.24%	7	5	2	15.76%
VP-262	75%	1.78	6 54.55%	40.79%	11	7	4	57.89%

Wetland: VP-034

Species	Cover Class	Statistics
<i>Aira caryophyllea</i>	0	Vegetative Cover: 98%
<i>Brodiaea elegans</i>	0	Prevalence Index: 1.59
<i>Brodiaea minor</i>	0	CRAM Richness: 4
<i>Elymus caput-medusae</i>	0	CRAM Cover: 97.47%
<i>Eryngium vaseyi</i>	3	% CVVP Species: 37.50%
<i>Lasthenia fremontii</i>	3	CVVP Cover: 96.84%
<i>Leontodon saxatilis</i>	0	Species Richness: 8
<i>Plagiobothrys stipitatus</i>	0	Native Species: 5
		Non-Native Species: 3
		Non-Native Cover: 1.90%

Wetland: VP-035

Species	Cover Class	Statistics
<i>Aira caryophylla</i>	3	Vegetative Cover: 95%
<i>Alopecurus saccatus</i>	2	Prevalence Index: 3.52
<i>Briza minor</i>	0	CRAM Richness: 5
<i>Brodiaea minor</i>	0	CRAM Cover: 30.61%
<i>Centromadia fitchii</i>	0	% CVVP Species: 23.53%
<i>Convolvulus arvensis</i>	0	CVVP Cover: 29.93%
<i>Eleocharis macrostachya</i>	1	Species Richness: 17
<i>Elymus caput-medusae</i>	0	Native Species: 7
<i>Eryngium vaseyi</i>	1	Non-Native Species: 10
<i>Festuca bromoides</i>	1	Non-Native Cover: 68.03%
<i>Festuca perennis</i>	1	
<i>Juncus sp.</i>	0	
<i>Leontodon saxatilis</i>	1	
<i>Lythrum hyssopifolia</i>	0	
<i>Plagiobothrys stipitatus</i>	0	
<i>Rumex crispus</i>	0	
<i>Vicia sp.</i>	0	

Wetland: VP-037

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Bromus hordeaceus</i>	0	Vegetative Cover: 88%
<i>Deschampsia danthonioides</i>	4	Prevalence Index: 2.43
<i>Elymus caput-medusae</i>	0	CRAM Richness: 2
<i>Festuca bromoides</i>	0	CRAM Cover: 77.11%
<i>Hordeum marinum</i>	0	% CVVP Species: 20.00%
<i>Leontodon saxatilis</i>	2	CVVP Cover: 77.11%
<i>Lythrum hyssopifolia</i>	0	Species Richness: 10
<i>Plagiobothrys stipitatus</i>	0	Native Species: 2
<i>Spergularia rubra</i>	0	Non-Native Species: 8
<i>Vicia sp.</i>	0	Non-Native Cover: 22.89%

Wetland: VP-038

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Aira caryophylla</i>	1	Vegetative Cover: 90%
<i>Centromadia fitchii</i>	0	Prevalence Index: 1.80
<i>Croton setiger</i>	1	CRAM Richness: 4
<i>Eleocharis macrostachya</i>	2	CRAM Cover: 81.15%
<i>Eryngium vaseyi</i>	2	% CVVP Species: 33.33%
<i>Festuca perennis</i>	0	CVVP Cover: 81.15%
<i>Hordeum marinum</i>	0	Species Richness: 12
<i>Lasthenia fremontii</i>	1	Native Species: 8
<i>Mentha pulegium</i>	0	Non-Native Species: 4
<i>Plagiobothrys stipitatus</i>	2	Non-Native Cover: 11.48%
<i>Rumex crispus</i>	1	
<i>Trichostema lanceolatum</i>	0	

Wetland: VP-041

Species	Cover Class	Statistics
<i>Brodiaea minor</i>	0	Vegetative Cover: 75%
<i>Crassula aquatica</i>	2	Prevalence Index: 1.59
<i>Deschampsia danthonioides</i>	2	CRAM Richness: 9
<i>Downingia ornatissima</i>	0	CRAM Cover: 90.26%
<i>Eleocharis macrostachya</i>	1	% CVVP Species: 47.37%
<i>Elymus caput-medusae</i>	0	CVVP Cover: 90.26%
<i>Eryngium vaseyi</i>	2	Species Richness: 19
<i>Festuca bromoides</i>	0	Native Species: 11
<i>Festuca perennis</i>	0	Non-Native Species: 8
<i>Juncus oxymeris</i>	1	Non-Native Cover: 5.19%
<i>Lasthenia fremontii</i>	2	
<i>Lathyrus angulatus</i>	0	
<i>Leontodon saxatilis</i>	0	
<i>Lythrum hyssopifolia</i>	0	
<i>Plagiobothrys stipitatus</i>	1	
<i>Polypogon monspeliensis</i>	0	
<i>Psilocarphus brevissimus</i>	0	
<i>Spergularia rubra</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-042

Species	Cover Class	Statistics
<i>Crassula aquatica</i>	2	Vegetative Cover: 65%
<i>Downingia bicornuta</i>	0	Prevalence Index: 1.35
<i>Eleocharis acicularis</i>	1	CRAM Richness: 8
<i>Eleocharis macrostachya</i>	2	CRAM Cover: 88.27%
<i>Eryngium vaseyi</i>	1	% CVVP Species: 75.00%
<i>Hordeum marinum</i>	0	CVVP Cover: 91.98%
<i>Lasthenia glaberrima</i>	1	Species Richness: 12
<i>Layia fremontii</i>	1	Native Species: 10
<i>Leontodon saxatilis</i>	1	Non-Native Species: 2
<i>Plagiobothrys stipitatus</i>	2	Non-Native Cover: 4.32%
<i>Psilocarphus brevissimus</i>	2	
<i>Ranunculus bonariensis</i>	1	

Wetland: VP-046

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Aira caryophyllea</i>	3	Vegetative Cover: 90%
<i>Brodiaea minor</i>	0	Prevalence Index: 4.61
<i>Centromadia fitchii</i>	1	CRAM Richness: 3
<i>Eleocharis macrostachya</i>	0	CRAM Cover: 7.84%
<i>Eryngium vaseyi</i>	1	% CVVP Species: 28.57%
<i>Hordeum marinum</i>	1	CVVP Cover: 6.86%
<i>Leontodon saxatilis</i>	1	Species Richness: 7
		Native Species: 4
		Non-Native Species: 3
		Non-Native Cover: 86.27%

Wetland: VP-047

Species	Cover Class	Statistics
<i>Crassula aquatica</i>	1	Vegetative Cover: 74%
<i>Downingia ornatissima</i>	0	Prevalence Index: 1.16
<i>Eleocharis acicularis</i>	0	CRAM Richness: 9
<i>Eleocharis macrostachya</i>	3	CRAM Cover: 94.14%
<i>Eryngium vaseyi</i>	1	% CVVP Species: 64.71%
<i>Festuca perennis</i>	0	CVVP Cover: 95.05%
<i>Juncus oxymeris</i>	0	Species Richness: 17
<i>Lasthenia fremontii</i>	1	Native Species: 12
<i>Lasthenia glaberrima</i>	3	Non-Native Species: 5
<i>Lathyrus angulatus</i>	0	Non-Native Cover: 4.50%
<i>Leontodon saxatilis</i>	1	
<i>Lysimachia arvensis</i>	0	
<i>Plagiobothrys stipitatus</i>	2	
<i>Polypogon monspeliensis</i>	0	
<i>Psilocarphus brevissimus</i>	0	
<i>Ranunculus bonariensis</i>	1	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-048

Species	Cover Class	Statistics
<i>Briza minor</i>	0	Vegetative Cover: 80%
<i>Brodiaea minor</i>	0	Prevalence Index: 1.62
<i>Crassula aquatica</i>	1	CRAM Richness: 5
<i>Croton setiger</i>	0	CRAM Cover: 92.49%
<i>Eleocharis macrostachya</i>	3	% CVVP Species: 30.77%
<i>Elymus caput-medusae</i>	0	CVVP Cover: 91.91%
<i>Eryngium vaseyi</i>	3	Species Richness: 13
<i>Festuca perennis</i>	1	Native Species: 7
<i>Hordeum marinum</i>	0	Non-Native Species: 6
<i>Lasthenia fremontii</i>	0	Non-Native Cover: 6.36%
<i>Leontodon saxatilis</i>	0	
<i>Mentha pulegium</i>	0	
<i>Rumex crispus</i>	0	

Wetland: VP-049

Species	Cover Class	Statistics
<i>Alopecurus saccatus</i>	0	Vegetative Cover: 90%
<i>Briza minor</i>	0	Prevalence Index: 1.09
<i>Brodiaea minor</i>	0	CRAM Richness: 11
<i>Centromadia fitchii</i>	0	CRAM Cover: 98.50%
<i>Crassula aquatica</i>	2	% CVVP Species: 71.43%
<i>Downingia bicornuta</i>	0	CVVP Cover: 98.00%
<i>Downingia ornatissima</i>	1	Species Richness: 14
<i>Eleocharis macrostachya</i>	4	Native Species: 12
<i>Eryngium vaseyi</i>	1	Non-Native Species: 2
<i>Hordeum marinum</i>	0	Non-Native Cover: 1.00%
<i>Lasthenia glaberrima</i>	1	
<i>Plagiobothrys stipitatus</i>	1	
<i>Psilocarphus brevissimus</i>	1	
<i>Ranunculus bonariensis</i>	1	

Wetland: VP-055

Species	Cover Class	Statistics
<i>Briza minor</i>	0	Vegetative Cover: 98%
<i>Brodiaea minor</i>	0	Prevalence Index: 1.10
<i>Convolvulus arvensis</i>	0	CRAM Richness: 7
<i>Crassula aquatica</i>	1	CRAM Cover: 96.00%
<i>Downingia ornatissima</i>	0	% CVVP Species: 50.00%
<i>Eleocharis macrostachya</i>	2	CVVP Cover: 96.00%
<i>Eryngium vaseyi</i>	0	Species Richness: 14
<i>Gratiola ebracteata</i>	0	Native Species: 9
<i>Hordeum marinum</i>	0	Non-Native Species: 5
<i>Leontodon saxatilis</i>	0	Non-Native Cover: 2.86%
<i>Lythrum hyssopifolia</i>	0	
<i>Plagiobothrys stipitatus</i>	4	
<i>Ranunculus aquatilis</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-057

Species	Cover Class	Statistics
<i>Briza minor</i>	0	Vegetative Cover: 95%
<i>Convolvulus arvensis</i>	0	Prevalence Index: 1.27
<i>Crassula aquatica</i>	0	CRAM Richness: 5
<i>Eleocharis macrostachya</i>	4	CRAM Cover: 92.93%
<i>Eryngium vaseyi</i>	2	% CVVP Species: 46.15%
<i>Festuca perennis</i>	0	CVVP Cover: 96.20%
<i>Juncus sp.</i>	0	Species Richness: 13
<i>Lythrum hyssopifolia</i>	0	Native Species: 7
<i>Mentha sp.</i>	0	Non-Native Species: 6
<i>Plagiobothrys stipitatus</i>	1	Non-Native Cover: 3.26%
<i>Psilocarphus brevissimus</i>	1	
<i>Trifolium dubium</i>	0	
<i>Triteleia hyacinthina</i>	1	

Wetland: VP-058

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Crassula aquatica</i>	1	Vegetative Cover: 85%
<i>Downingia ornatissima</i>	0	Prevalence Index: 1.47
<i>Eleocharis macrostachya</i>	3	CRAM Richness: 7
<i>Eryngium vaseyi</i>	3	CRAM Cover: 96.09%
<i>Festuca perennis</i>	0	% CVVP Species: 88.89%
<i>Plagiobothrys stipitatus</i>	1	CVVP Cover: 99.44%
<i>Psilocarphus brevissimus</i>	1	Species Richness: 9
<i>Ranunculus bonariensis</i>	0	Native Species: 8
<i>Triteleia hyacinthina</i>	1	Non-Native Species: 1
		Non-Native Cover: 0.56%

Wetland: VP-060

Species	Cover Class	Statistics
<i>Aira caryophylla</i>	2	Vegetative Cover: 98%
<i>Crassula aquatica</i>	1	Prevalence Index: 1.98
<i>Downingia bicornuta</i>	0	CRAM Richness: 9
<i>Downingia ornatissima</i>	0	CRAM Cover: 80.56%
<i>Eleocharis macrostachya</i>	3	% CVVP Species: 62.50%
<i>Eryngium vaseyi</i>	3	CVVP Cover: 81.02%
<i>Festuca perennis</i>	0	Species Richness: 16
<i>Hordeum marinum</i>	0	Native Species: 10
<i>Lasthenia fremontii</i>	1	Non-Native Species: 6
<i>Lasthenia glaberrima</i>	1	Non-Native Cover: 18.98%
<i>Lythrum hyssopifolia</i>	1	
<i>Mentha sp.</i>	0	
<i>Plagiobothrys stipitatus</i>	0	
<i>Ranunculus bonariensis</i>	0	
<i>Rumex crispus</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-062

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Eleocharis macrostachya</i>	1	Vegetative Cover: 75%
<i>Eryngium vaseyi</i>	2	Prevalence Index: 1.25
<i>Festuca bromoides</i>	0	CRAM Richness: 5
<i>Festuca perennis</i>	0	CRAM Cover: 96.15%
<i>Lasthenia fremontii</i>	3	% CVVP Species: 54.55%
<i>Leontodon saxatilis</i>	0	CVVP Cover: 96.79%
<i>Lythrum hyssopifolia</i>	0	Species Richness: 11
<i>Plagiobothrys stipitatus</i>	2	Native Species: 7
<i>Psilocarphus brevissimus</i>	1	Non-Native Species: 4
<i>Ranunculus aquatilis</i>	0	Non-Native Cover: 2.56%
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-075

Species	Cover Class	Statistics
<i>Centromadia fitchii</i>	2	Vegetative Cover: 63%
<i>Convolvulus arvensis</i>	0	Prevalence Index: 1.76
<i>Crassula aquatica</i>	3	CRAM Richness: 7
<i>Downingia bicornuta</i>	0	CRAM Cover: 79.46%
<i>Eleocharis acicularis</i>	0	% CVVP Species: 53.33%
<i>Eleocharis macrostachya</i>	2	CVVP Cover: 80.00%
<i>Eryngium vaseyi</i>	0	Species Richness: 15
<i>Lasthenia fremontii</i>	2	Native Species: 10
<i>Leontodon saxatilis</i>	0	Non-Native Species: 5
<i>Lythrum hyssopifolia</i>	0	Non-Native Cover: 2.70%
<i>Plagiobothrys stipitatus</i>	1	
<i>Psilocarphus brevissimus</i>	0	
<i>Rumex crispus</i>	0	
<i>Spergularia rubra</i>	0	
<i>Trichostema lanceolatum</i>	0	

Wetland: VP-076

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Convolvulus arvensis</i>	0	Vegetative Cover: 50%
<i>Eleocharis macrostachya</i>	2	Prevalence Index: 1.41
<i>Eryngium vaseyi</i>	0	CRAM Richness: 4
<i>Hordeum marinum</i>	0	CRAM Cover: 86.49%
<i>Lasthenia fremontii</i>	2	% CVVP Species: 44.44%
<i>Lathyrus angulatus</i>	0	CVVP Cover: 86.49%
<i>Leontodon saxatilis</i>	1	Species Richness: 9
<i>Lythrum hyssopifolia</i>	0	Native Species: 4
<i>Plagiobothrys stipitatus</i>	0	Non-Native Species: 5
		Non-Native Cover: 13.51%

Wetland: VP-080

Species	Cover Class	Statistics
<i>Convolvulus arvensis</i>	0	Vegetative Cover: 40%
<i>Crassula aquatica</i>	2	Prevalence Index: 1.96
<i>Croton setiger</i>	0	CRAM Richness: 7
<i>Deschampsia danthonioides</i>	1	CRAM Cover: 67.65%
<i>Downingia ornatissima</i>	1	% CVVP Species: 56.25%
<i>Eleocharis acicularis</i>	1	CVVP Cover: 72.79%
<i>Eleocharis macrostachya</i>	2	Species Richness: 16
<i>Erodium botrys</i>	0	Native Species: 11
<i>Eryngium vaseyi</i>	1	Non-Native Species: 5
<i>Festuca bromoides</i>	0	Non-Native Cover: 25.74%
<i>Lasthenia fremontii</i>	1	
<i>Leontodon saxatilis</i>	2	
<i>Plagiobothrys stipitatus</i>	1	
<i>Polypogon monspeliensis</i>	0	
<i>Trichostema lanceolatum</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-102

Species	Cover Class	Statistics
<i>Crassula aquatica</i>	3	Vegetative Cover: 85%
<i>Downingia ornatissima</i>	1	Prevalence Index: 1.20
<i>Eleocharis acicularis</i>	0	CRAM Richness: 7
<i>Eleocharis macrostachya</i>	1	CRAM Cover: 93.62%
<i>Eryngium vaseyi</i>	1	% CVVP Species: 81.82%
<i>Hordeum marinum</i>	0	CVVP Cover: 95.04%
<i>Lasthenia fremontii</i>	2	Species Richness: 11
<i>Leontodon saxatilis</i>	1	Native Species: 9
<i>Plagiobothrys stipitatus</i>	1	Non-Native Species: 2
<i>Psilocarphus brevissimus</i>	0	Non-Native Cover: 4.96%
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-105

Species	Cover Class	Statistics
<i>Crassula aquatica</i>	2	Vegetative Cover: 75%
<i>Downingia ornatissima</i>	0	Prevalence Index: 1.64
<i>Eleocharis macrostachya</i>	3	CRAM Richness: 9
<i>Eryngium vaseyi</i>	2	CRAM Cover: 69.13%
<i>Hordeum marinum</i>	2	% CVVP Species: 60.00%
<i>Lasthenia fremontii</i>	1	CVVP Cover: 69.13%
<i>Lathyrus angulatus</i>	0	Species Richness: 15
<i>Leontodon saxatilis</i>	1	Native Species: 9
<i>Lythrum hyssopifolia</i>	0	Non-Native Species: 6
<i>Navarretia leucocephala</i>	0	Non-Native Cover: 30.87%
<i>Plagiobothrys stipitatus</i>	1	
<i>Polypogon monspeliensis</i>	2	
<i>Psilocarphus brevissimus</i>	0	
<i>Ranunculus bonariensis</i>	1	
<i>Rumex crispus</i>	0	

Wetland: VP-107

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Crassula aquatica</i>	1	Vegetative Cover: 75%
<i>Eleocharis macrostachya</i>	3	Prevalence Index: 1.33
<i>Erodium botrys</i>	0	CRAM Richness: 6
<i>Eryngium vaseyi</i>	2	CRAM Cover: 94.62%
<i>Holocarpha virgata</i>	0	% CVVP Species: 63.64%
<i>Lasthenia fremontii</i>	0	CVVP Cover: 95.16%
<i>Lathyrus angulatus</i>	0	Species Richness: 11
<i>Leontodon saxatilis</i>	1	Native Species: 8
<i>Plagiobothrys stipitatus</i>	2	Non-Native Species: 3
<i>Ranunculus bonariensis</i>	2	Non-Native Cover: 4.30%
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-118

<u>Species</u>	<u>Cover Class</u>	<u>Statistics</u>
<i>Downingia ornatissima</i>	1	Vegetative Cover: 75%
<i>Eleocharis macrostachya</i>	3	Prevalence Index: 1.02
<i>Festuca perennis</i>	0	CRAM Richness: 2
<i>Ranunculus aquatilis</i>	1	CRAM Cover: 92.13%
		% CVVP Species: 50.00%
		CVVP Cover: 92.13%
		Species Richness: 4
		Native Species: 3
		Non-Native Species: 1
		Non-Native Cover: 1.12%

Wetland: VP-119

Species	Cover Class	Statistics
<i>Downingia ornatissima</i>	1	Vegetative Cover: 80%
<i>Eleocharis macrostachya</i>	4	Prevalence Index: 1.07
<i>Eryngium vaseyi</i>	1	CRAM Richness: 6
<i>Juncus sp.</i>	0	CRAM Cover: 96.72%
<i>Lasthenia glaberrima</i>	0	% CVVP Species: 58.33%
<i>Leontodon saxatilis</i>	0	CVVP Cover: 97.27%
<i>Lythrum hyssopifolia</i>	0	Species Richness: 12
<i>Plagiobothrys stipitatus</i>	1	Native Species: 10
<i>Populus fremontii</i>	0	Non-Native Species: 2
<i>Psilocarphus brevissimus</i>	2	Non-Native Cover: 1.09%
<i>Salix exigua</i>	0	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-131

Species	Cover Class	Statistics
<i>Convolvulus arvensis</i>	0	Vegetative Cover: 90%
<i>Cynosurus echinatus</i>	1	Prevalence Index: 1.34
<i>Eleocharis macrostachya</i>	4	CRAM Richness: 5
<i>Eryngium vaseyi</i>	1	CRAM Cover: 89.02%
<i>Festuca perennis</i>	0	% CVVP Species: 46.15%
<i>Lasthenia glaberrima</i>	1	CVVP Cover: 89.63%
<i>Mentha pulegium</i>	0	Species Richness: 13
<i>Plagiobothrys stipitatus</i>	1	Native Species: 7
<i>Ranunculus bonariensis</i>	0	Non-Native Species: 6
<i>Rumex crispus</i>	0	Non-Native Cover: 9.76%
<i>Rumex crispus</i>	0	
<i>Trifolium dubium</i>	1	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-212

Species	Cover Class	Statistics	
<i>Alopecurus saccatus</i>	0	Vegetative Cover:	95%
<i>Downingia ornatissima</i>	1	Prevalence Index:	1.06
<i>Eleocharis macrostachya</i>	3	CRAM Richness:	7
<i>Eryngium vaseyi</i>	1	CRAM Cover:	99.37%
<i>Lasthenia glaberrima</i>	2	% CVVP Species:	87.50%
<i>Leontodon saxatilis</i>	0	CVVP Cover:	99.37%
<i>Plagiobothrys stipitatus</i>	2	Species Richness:	8
<i>Ranunculus bonariensis</i>	1	Native Species:	7
		Non-Native Species:	1
		Non-Native Cover:	0.63%

Wetland: VP-216

Species	Cover Class	Statistics
<i>Briza minor</i>	0	Vegetative Cover: 85%
<i>Brodiaea minor</i>	0	Prevalence Index: 1.33
<i>Cyperus eragrostis</i>	0	CRAM Richness: 7
<i>Deschampsia danthonioides</i>	0	CRAM Cover: 78.14%
<i>Downingia ornatissima</i>	0	% CVVP Species: 31.58%
<i>Elymus caput-medusae</i>	0	CVVP Cover: 77.67%
<i>Eryngium vaseyi</i>	1	Species Richness: 19
<i>Festuca bromoides</i>	0	Native Species: 9
<i>Festuca perennis</i>	1	Non-Native Species: 10
<i>Hordeum marinum</i>	0	Non-Native Cover: 20.93%
<i>Lasthenia fremontii</i>	4	
<i>Leontodon saxatilis</i>	0	
<i>Lythrum hyssopifolia</i>	0	
<i>Mentha pulegium</i>	0	
<i>Plagiobothrys stipitatus</i>	2	
<i>Polypogon monspeliensis</i>	0	
<i>Ranunculus bonariensis</i>	0	
<i>Rumex crispus</i>	2	
<i>Rumex pulcher</i>	0	

Wetland: VP-229

Species	Cover Class	Statistics
<i>Downingia bicornuta</i>	1	Vegetative Cover: 80%
<i>Eleocharis acicularis</i>	0	Prevalence Index: 1.08
<i>Eleocharis macrostachya</i>	3	CRAM Richness: 7
<i>Eryngium vaseyi</i>	1	CRAM Cover: 97.18%
<i>Festuca perennis</i>	0	% CVVP Species: 69.23%
<i>Glyceria declinata</i>	0	CVVP Cover: 98.12%
<i>Lasthenia fremontii</i>	3	Species Richness: 13
<i>Lasthenia glaberrima</i>	1	Native Species: 9
<i>Lathyrus angulatus</i>	0	Non-Native Species: 4
<i>Leontodon saxatilis</i>	0	Non-Native Cover: 1.88%
<i>Plagiobothrys stipitatus</i>	1	
<i>Ranunculus bonariensis</i>	2	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-242

Species	Cover Class	Statistics	
<i>Azolla sp.</i>	4	Vegetative Cover:	75%
<i>Cyperus eragrostis</i>	0	Prevalence Index:	1.07
<i>Downingia bicornuta</i>	0	CRAM Richness:	3
<i>Eleocharis acicularis</i>	1	CRAM Cover:	15.70%
<i>Eleocharis macrostachya</i>	1	% CVVP Species:	36.36%
<i>Glyceria declinata</i>	2	CVVP Cover:	18.18%
<i>Lathyrus angulatus</i>	0	Species Richness:	11
<i>Mimulus guttatus</i>	0	Native Species:	8
<i>Polypogon monspeliensis</i>	1	Non-Native Species:	3
<i>Ranunculus aquatilis</i>	2	Non-Native Cover:	15.70%
<i>Ranunculus bonariensis</i>	2		

Wetland: VP-248

Species	Cover Class	Statistics
<i>Crassula aquatica</i>	1	Vegetative Cover: 70%
<i>Downingia ornatissima</i>	1	Prevalence Index: 1.25
<i>Eleocharis macrostachya</i>	1	CRAM Richness: 7
<i>Eryngium vaseyi</i>	2	CRAM Cover: 94.95%
<i>Festuca bromoides</i>	0	% CVVP Species: 66.67%
<i>Festuca perennis</i>	1	CVVP Cover: 95.45%
<i>Lasthenia fremontii</i>	1	Species Richness: 12
<i>Leontodon saxatilis</i>	0	Native Species: 8
<i>Lythrum hyssopifolia</i>	0	Non-Native Species: 4
<i>Plagiobothrys stipitatus</i>	4	Non-Native Cover: 4.55%
<i>Psilocarphus brevissimus</i>	1	
<i>Triteleia hyacinthina</i>	0	

Wetland: VP-249

Species	Cover Class	Statistics
<i>Crassula aquatica</i>	1	Vegetative Cover: 70%
<i>Downingia ornatissima</i>	0	Prevalence Index: 1.20
<i>Eleocharis macrostachya</i>	4	CRAM Richness: 5
<i>Eryngium vaseyi</i>	1	CRAM Cover: 84.24%
<i>Leontodon saxatilis</i>	0	% CVVP Species: 71.43%
<i>Lythrum hyssopifolia</i>	2	CVVP Cover: 84.24%
<i>Plagiobothrys stipitatus</i>	2	Species Richness: 7
		Native Species: 5
		Non-Native Species: 2
		Non-Native Cover: 15.76%

Wetland: VP-262

Species	Cover Class	Statistics
<i>Crassula aquatica</i>	1	Vegetative Cover: 75%
<i>Eleocharis macrostachya</i>	1	Prevalence Index: 1.78
<i>Festuca bromoides</i>	2	CRAM Richness: 6
<i>Festuca perennis</i>	1	CRAM Cover: 40.79%
<i>Hordeum marinum</i>	1	% CVVP Species: 54.55%
<i>Juncus sp.</i>	0	CVVP Cover: 40.79%
<i>Lasthenia fremontii</i>	1	Species Richness: 11
<i>Pilularia americana</i>	0	Native Species: 7
<i>Plagiobothrys stipitatus</i>	1	Non-Native Species: 4
<i>Psilocarphus brevissimus</i>	1	Non-Native Cover: 57.89%
<i>Trifolium dubium</i>	0	

Appendix D — RDM Sampling Datasheets

Claremont								
Sample Number	Site Ref. #	Date	Dried Weight (grams) Sq. Foot	RDM (lbs./ac.)	Exceeds/ Meets/ Under Objective	Estimated Degree of Use	Photo #	Habitat Type
49	C-3	10/25/2017	8	768	Meets	3	3415-3416	OW
22	C-4	10/25/2017	9	864	Meets	3	3408-3409	AG

RDM Objective: 800-1,200 lbs/acre for Annual Grassland (AG), 400-1,200 lbs/acre for Oak Woodland (OW) and Riparian (RIP)

Degree of Use:

- 1 - None Little or no use of surveyed vegetation
- 2 - Light Less than 1/3 of surveyed vegetation shows evidence of being grazed. Trampling damage is minimal.
- 3 - Moderate Grazing is spotty, but evident. Trampling damage may be evident.
- 4 - Heavy Surveyed vegetation is closely cropped. Trampling damage should be evident.
- 5 - Severe Surveyed vegetation grubbed. Trampling damage evident.

Orchard Creek								
Sample Number	Site Ref. #	Date	Dried Weight (grams) Sq. Foot	RDM (lbs./ac.)	Exceeds/Meets/Under Objective	Estimated Degree of Use	Photo #	Habitat Type
26	OC-1	10/19/2017	26	2,340	Exceeds	1	3406-3407	AG
29	Oc-1	10/19/2017	23	2,208	Exceeds	1	3396-3395	AG

RDM Objective: 800-1,200 lbs/acre for Annual Grassland (AG), 400-1,200 lbs/acre for Oak Woodland (OW) and Riparian (RIP)

Degree of Use:

- 1 - None Little or no use of surveyed vegetation
- 2 - Light Less than 1/3 of surveyed vegetation shows evidence of being grazed. Trampling damage is minimal.
- 3 - Moderate Grazing is spotty, but evident. Trampling damage may be evident.
- 4 - Heavy Surveyed vegetation is closely cropped. Trampling damage should be evident.
- 5 - Severe Surveyed vegetation grubbed. Trampling damage evident.

Stanford Ranch								
Sample Number	Site Ref. #	Date	Dried Weight (grams) Sq. Foot	RDM (lbs./ac.)	Exceeds/Meets/Under Objective	Estimated Degree of Use	Photo #	Habitat Type
4	SR-8	11/1/2017	17	1,632	Exceeds	2	1-2	AG
15	SR-8	11/1/2017	33	3,168	Exceeds	2	1-2	AG
16	SR-8	11/1/2017	15	1,440	Exceeds	2	1-2	AG
11	SR-12	10/31/2017	27	2,592	Exceeds	2	1-2	AG
12	SR-12	11/1/2017	12	1,152	Exceeds	2	1-2	AG
10	SR-13	11/1/2017	31	2,976	Exceeds	2	1-2	AG
13	SR-14	10/31/2017	24	2,304	Exceeds	2	1-2	AG
19	SR-16	10/23/2017	12	1,152	Meets	3	13-14	AG
17	SR-17	10/23/2018	24	2,304	Exceeds	2	17-18	AG
18	SR-19	10/25/2017	17	1,632	Exceeds	2	3421-3422	AG
14	SR-21	9/19/2017	33	3,168	Exceeds	1	1-2	AG
27	SR-21	9/19/2017	15	1,440	Exceeds	2	3-4	AG
42	SR-17	10/23/2017	26	2,496	Exceeds	2	19-20	OW
46	SR-6	11/1/2017	30	2,880	Exceeds	2	1-2	OW
47	SR-6	11/1/2017	12	1,152	Exceeds	2	1-2	OW
44	SR-7	11/1/2017	69	6,624	Exceeds	2	1-2	OW
45	SR-7	11/1/2017	31	2,976	Exceeds	2	1-2	OW
41	SR-8	11/1/2017	27	2,592	Exceeds	2	1-2	OW
39	SR-13	10/31/2017	23	2,208	Exceeds	2	1-2	OW
34	SR-15	10/31/2017	32	3,072	Exceeds	2	1-2	OW
43	SR-17	10/23/2017	11	1,056	Exceeds	2	15-16	OW
37	SR-21	10/25/2017	27	2,592	Exceeds	3	3425-3426	OW
48	SR-2	10/25/2017	18	1,728	Exceeds	2	3419-3420	RIP
38	SR-11	11/1/2017	38	3,648	Exceeds	2	1-2	RIP
36	SR-13	11/1/2017	27	2,596	Exceeds	2	1-2	RIP
35	SR-15	10/31/2017	27	2,592	Exceeds	2	1-2	RIP
40	SR-18	10/25/2017	19	1,824	Exceeds	2	3423-3422	RIP

RDM Objective: 800-1,200 lbs/acre for Annual Grassland (AG), 400-1,200 lbs/acre for Oak Woodland (OW) and Riparian (RIP)

Degree of U: Little or no use of surveyed vegetation

- 1 - None Less than 1/3 of surveyed vegetation shows evidence of being grazed. Trampling damage is minimal.
- 2 - Light Grazing is spotty, but evident. Trampling damage may be evident.
- 3 - Moderate Surveyed vegetation is closely cropped. Trampling damage should be evident.
- 4 - Heavy Surveyed vegetation grubbed. Trampling damage evident.
- 5 - Severe

Sunset West								
Sample Number	Site Ref. #	Date	Dried Weight (grams) Sq. Foot	RDM (lbs./ac.)	Exceeds/Meets/Under Objective	Estimated Degree of Use	Photo #	Habitat Type
7	SW-1	10/31/2017	28	2,688	Exceeds	1	1-2	AG
9	SW-1	10/31/2017	20	1,920	Exceeds	1	1-2	AG
8	SW-3	10/31/2017	23	2,208	Exceeds	1	1-2	AG
6	SW-4	10/31/2017	44	4,224	Exceeds	1	1-2	AG
3	SW-6	10/31/2017	48	4,608	Exceeds	1	1-2	AG
5	SW-7	10/31/2017	43	4,128	Exceeds	1	1-2	AG
1	SW-8	10/31/2017	18	1,728	Exceeds	3	1-2	AG
32	SW-4	10/31/2017	13	1,248	Exceeds	3	1-2	OW
31	SW-6	10/31/2017	15	1,440	Exceeds	2	1-2	OW
33	SW-5	10/23/2017	19	1,824	Exceeds	3	43,102	RIP

RDM Objective: 800-1,200 lbs/acre for Annual Grassland (AG), 400-1,200 lbs/acre for Oak Woodland (OW) and Riparian (RIP)

Degree of Use:

- 1 - None Little or no use of surveyed vegetation
- 2 - Light Less than 1/3 of surveyed vegetation shows evidence of being grazed. Trampling damage is minimal.
- 3 - Moderate Grazing is spotty, but evident. Trampling damage may be evident.
- 4 - Heavy Surveyed vegetation is closely cropped. Trampling damage should be evident.
- 5 - Severe Surveyed vegetation grubbed. Trampling damage evident.

Whitney Ranch								
Sample Number	Site Ref. #	Date	Dried Weight (grams) Sq. Foot	RDM (lbs./ac.)	Exceeds/Meets/Under Objective	Estimated Degree of Use	Photo #	Habitat Type
30	WR-1	10/19/2017	14	1,344	Exceeds	2	3359-3360	AG
25	WR-2	10/19/2017	7	672	Under	4	3389-3390	AG
27	WR-3	10/19/2017	21	2,016	Exceeds	1	3377-3378	AG
2	WR-4	10/19/2017	10	960	Exceeds	3	3375-3376	AG
28	WR-4	10/19/2017	30	2,880	Exceeds	2	3373-3374	AG
21	WR-5	10/23/2017	9	864	Exceeds	3	3-4	AG
23	WR-5	10/23/2017	20	1,920	Exceeds	2	5-6	AG
20	WR-6	10/23/2017	22	2,112	Exceeds	1	7-8	AG
24	WR-6	10/23/2017	8	768	Under	3	11-12	AG
50	WR-1	10/19/2017	62	5,962	Exceeds	1	3369-3370	OW

RDM Objective: 800-1,200 lbs/acre for Annual Grassland (AG), 400-1,200 lbs/acre for Oak Woodland (OW) and Riparian (RIP)

Degree of Use:

- 1 - None Little or no use of surveyed vegetation
- 2 - Light Less than 1/3 of surveyed vegetation shows evidence of being grazed. Trampling damage is minimal.
- 3 - Moderate Grazing is spotty, but evident. Trampling damage may be evident.
- 4 - Heavy Surveyed vegetation is closely cropped. Trampling damage should be evident.
- 5 - Severe Surveyed vegetation grubbed. Trampling damage evident.

Appendix E — Oak Tree Survey Data for Brighton Open Space

Brighton Open Space Preserve
Oak Tree Survey Data

Tree Number	Species	Number of Trunks	DBH	DLR (feet)	Height	Condition			Notes
						Health	Structure	Vigor	
1	Valley Oak	1	11	15	30	Fair	Fair	Fair	no tag, poison oak, included bark, moderate dieback
2	Valley Oak	2	18, 10	22	32	Fair	Fair	Fair	no tag, included bark, codominant at 4ft, severe dieback, poison oak
3	Valley Oak	1	15	17	30	Fair	Fair	Fair	no tag, lean, asymmetrical canopy, included bark, poison oak
4	Valley Oak	1	17	22	40	Fair-Good	Fair-Good	Fair-Good	no tag, included bark, pruning cuts, moderate dieback
5	Valley Oak	1	10	10	32	Fair	Poor-Fair	Poor-Fair	no tag, lean, included bark
6	Interior Live Oak	1	11	15	25	Fair-Good	Poor-Fair	Fair	no tag, severe lean, included bark
7	Interior Live Oak	3	5,2,13	15	20	Fair-Good	Fair	Fair	no tag, lean, included bark, asymmetrical canopy
11	Valley Oak	1	6	5	22	Fair	Poor-Fair	Fair	no tag, lean, moderate dieback
12	Valley Oak	1	7	10	22	Fair	Fair	Fair	no tag, included bark, moderate dieback, slight lean
12	Interior Live Oak	1	6	15	17	Fair	Poor-Fair	Fair	no tag, lean, minor dieback
14	Interior Live Oak	1	10	12	22	Fair-Good	Poor-Fair	Fair	no tag, included bark, limb death, severe lean
15	Valley Oak	1	14	15	27	Fair	Fair	Fair	no tag, included bark, severe dieback
1301	Valley Oak	1	9	8	30	Fair	Fair	Fair	included bark, moderate dieback, sparse canopy, bark damage
1302	Valley Oak	1	7	10	30	Fair	Fair	Fair	moderate dieback, lean, included bark, sparse canopy
1303	Valley Oak	1	9	12	30	Fair	Fair	Fair	severe dieback, sparse canopy, included bark
1304	Valley Oak	1	7	10	30	Fair	Fair	Fair	lean, moderate dieback, included bark, sparse canopy
1305	Valley Oak	1	7	8	27	Fair-Good	Fair-Good	Fair-Good	minor dieback
1306	Valley Oak	1	9	10	25	Fair	Fair	Fair	severe dieback, sparse canopy
1307	Interior Live Oak	1	6	15	20	Fair-Good	Fair	Fair	lean, minor dieback, included bark
1308	Valley Oak	1	8	6	30	Fair	Fair	Fair	moderate dieback, sparse canopy
1309	Valley Oak	1	9	10	30	Fair	Fair	Fair	included bark, severe dieback, sparse canopy
1310	Valley Oak	1	8	10	25	Fair	Fair	Fair	lean, moderate dieback, bark damage
1311	Valley Oak	1	12	17	30	Fair-Good	Fair	Fair	minor dieback, included bark
1312	Valley Oak	1	10	10	30	Fair	Poor-Fair	Fair	lean, sparse canopy, severe dieback
1313	Valley Oak	1	11	17	30	Fair	Fair	Fair	moderate dieback, lean, bark damage
1314	Valley Oak	1	14	20	30	Fair-Good	Fair	Fair	asymmetrical canopy, lean, included bark
1315	Valley Oak	1	8	12	27	Fair	Fair	Fair	included bark, severe dieback
1316	Valley Oak	1	16	15	35	Fair-Good	Fair	Fair	included bark, slight lean, fissure, moderate dieback
1317	Valley Oak	1	14	20	30	Fair	Poor-Fair	Fair	lean, asymmetrical canopy, included bark, poison oak
1318	Interior Live Oak	2	6,4	12	15	Fair-Good	Fair	Fair	included bark, codominant at 1ft, lean, asymmetrical canopy
1319	Valley Oak	1	15	17	32	Fair-Good	Fair	Fair	fissure, included bark, moderate dieback, asymmetrical canopy
1320	Valley Oak	1	12	17	32	Fair-Good	Fair	Fair	lean, included bark, semi-merged w/ cottonwood
1321	Valley Oak	1	8	17	22	Fair-Good	Fair	Fair	lean, asymmetrical canopy
1322	Valley Oak	1	25	25	60	Fair-Good	Fair-Good	Fair-Good	included bark, moderate dieback
1323	Interior Live Oak	3	6,6,5	15	25	Fair-Good	Fair	Fair	lean, codominant at base, mistletoe, included bark, asymmetrical canopy
1324	Valley Oak	1	11	12	35	Fair	Fair	Fair	included bark, moderate dieback
1325	Valley Oak	1	6	12	25	Fair	Fair	Fair	severe dieback, included bark
1326	Interior Live Oak	1	10	15	27	Fair-Good	Fair-Good	Fair-Good	included bark
1327	Interior Live Oak	2	7,5	15	20	Fair-Good	Fair	Fair	included bark, asymmetrical canopy, minor dieback
1328	Interior Live Oak	2	7,2	25	15	Fair	Poor-Fair	Fair	asymmetrical canopy, severe lean, moderate dieback, codominant at 1ft
1329	Interior Live Oak	1	10	17	27	Fair-Good	Fair	Fair-Good	lean, asymmetrical canopy, included bark
1330	Blue Oak	1	9	15	27	Fair	Fair	Fair	included bark, severe dieback
1331	Valley Oak	1	9	12	32	Poor	Poor-Fair	Poor-Fair	included bark, no canopy, dieback, included bark
1332	Valley Oak	1	6	12	32	Fair	Poor-Fair	Fair	lean, poison oak, moderate dieback
1333	Valley Oak	1	12	15	30	Fair	Poor-Fair	Fair	lean, included bark, minor dieback
1334	Interior Live Oak	3	7,3,8	20	25	Fair-Good	Poor-Fair	Fair	severe lean, included bark, codominant at 3ft
1335	Interior Live Oak	1	6	20	5	Poor	Poor	Poor	almost dead

Brighton Open Space Preserve
Oak Tree Survey Data

Tree Number	Species	Number of Trunks	DBH	DLR (feet)	Height	Condition			Notes
						Health	Structure	Vigor	
1336	Interior Live Oak	1	10	22	25	Fair	Poor	Fair	severe lean, minor dieback, included bark
1337	Interior Live Oak	1	8	15	10	Poor-Fair	Poor	Poor-Fair	severe lean, severe dieback, included bark
1338	Valley Oak	1	6	10	22	Poor-Fair	Fair	Poor-Fair	lean, severe dieback
1339	Valley Oak	1	14	15	35	Fair	Fair	Fair	slight lean, severe dieback, included bark
1340	Interior Live Oak	1	10	12	22	Fair	Poor-Fair	Fair	severe lean, asymmetrical canopy, included bark
1341	Interior Live Oak	1	10	20	20	Fair	Poor-Fair	Poor-Fair	included bark, severe lean, moderate dieback
1342	Interior Live Oak	3	4,4,7	12	27	Fair-Good	Fair	Fair	codominant at 1ft, included bark, minor dieback
1343	Valley Oak	1	8	10	30	Fair	Fair	Fair	moderate dieback, included bark, pruning cuts
1344	Valley Oak	1	9	10	32	Fair	Fair	Fair	minor dieback, included bark
1345	Interior Live Oak	4	5,5,14,8	27	22	Fair	Poor-Fair	Poor-Fair	severe lean, included bark, moderate dieback
1346	Valley Oak	1	8	12	25	Fair	Fair	Fair	included bark, moderate dieback
1347	Valley Oak	1	6	15	25	Fair	Fair	Fair	asymmetrical canopy, included bark
1348	Valley Oak	1	10	12	35	Fair	Fair	Fair	included bark,
1349	Valley Oak	1	9	10	25	Fair-Good	Fair-Good	Fair-Good	slight lean, included bark
1350	Valley Oak	1	6	20	27	Fair	Poor-Fair	Fair	severe lean, moderate dieback
1351	Valley Oak	1	8	15	25	Fair	Fair	Fair	lean, included bark, moderate dieback
1352	Interior Live Oak	3	10, 14, 7	17	27	Fair-Good	Fair	Fair	codominant at base, included bark, minor dieback
1353	Interior Live Oak	2	6,4	15	15	Fair	Poor-Fair	Fair	asymmetrical canopy, lean, included bark, codominant at base
1354	Valley Oak	1	7	15	22	Fair	Fair	Fair	lean, included bark, moderate dieback
1355	Interior Live Oak	1	7	17	20	Fair	Poor-Fair	Fair	asymmetrical canopy, severe lean, included bark
1356	Interior Live Oak	2	3,4	17	20	Fair	Poor-Fair	Fair	asymmetrical canopy, included bark, slight lean
1357	Valley Oak	1	16	17	35	Fair	Fair	Fair	included bark, slight lean, asymmetrical canopy, moderate dieback
1358	Valley Oak	1	8	10	22	Fair	Fair	Fair	severe dieback, lean, asymmetrical canopy
1359	Valley Oak	1	7	15	25	Fair	Fair	Fair	included bark, pruning cuts
1360	Blue Oak	1	15	17	27	Fair	Fair	Fair	slight lean, included bark, moderate dieback
1361	Valley Oak	1	19	17	32	Fair	Fair	Fair	lean, included bark, asymmetrical canopy
1362	Valley Oak	1	7	15	35	Fair-Good	Fair-Good	Fair-Good	minor dieback
1363	Interior Live Oak	2	10,9	15	22	Fair	Fair	Fair	limb rot, codominant at 3ft, bark damage, moderate dieback, included bark
1364	Valley Oak	1	6	12	22	Fair	Fair	Fair	slight lean, asymmetrical canopy, minor dieback
1365	Valley Oak	1	8	12	27	Fair	Fair	Fair	minor dieback, included bark
1366	Valley Oak	1	6	10	25	Fair	Fair	Fair	minor dieback, slight lean
1367	Valley Oak	1	7	12	25	Fair	Fair	Fair	slight lean, moderate dieback, included bark
1368	Valley Oak	1	7	10	15	Fair-Good	Fair-Good	Fair-Good	included bark, minor dieback
1369	Valley Oak	1	31	27	40	Fair	Fair	Fair	limb death, asymmetrical canopy, included bark, lean, moderate dieback
1370	Interior Live Oak	1	15	15	22	Fair	Fair	Fair	asymmetrical canopy, included bark, severe dieback
1371	Interior Live Oak	1	8	10	17	Fair	Fair	Fair	severe lean, minor dieback, included bark
1372	Valley Oak	1	12	15	30	Fair	Fair	Fair	included bark, severe dieback, slight lean
1373	Interior Live Oak	1	13	12	25	Fair-Good	Fair	Fair	included bark, asymmetrical canopy, minor dieback
1374	Valley Oak	1	20	17	27	Fair	Fair	Fair	severe dieback, included bark, limb rot
1375	Valley Oak	1	17	15	15	Fair	Poor-Fair	Fair	asymmetrical canopy, included bark, moderate lean, severe dieback, trunks fused
1376	Valley Oak	1	8	8	17	Fair	Fair	Fair	slight lean, included bark, moderate dieback
1377	Interior Live Oak	1	11	12	30	Fair-Good	Fair	Fair	moderate dieback, blackberry, included bark
1378	Valley Oak	1	6	8	20	Fair	Fair	Fair	lean, asymmetrical canopy, included bark, severe dieback
1379	Valley Oak	1	7	10	27	Fair	Fair	Fair	severe dieback
1380	Interior Live Oak	1	6	8	15	Fair-Good	Fair	Fair-Good	included bark, minor dieback
1381	Interior Live Oak	1	7	12	15	Fair	Poor-Fair	Fair	asymmetrical canopy, severe lean, included bark
1382	Valley Oak	1	7	12	27	Fair	Fair	Fair	severe dieback, slight lean

Brighton Open Space Preserve
Oak Tree Survey Data

Tree Number	Species	Number of Trunks	DBH	DLR (feet)	Height	Condition			Notes
						Health	Structure	Vigor	
1383	Interior Live Oak	6	1,2,2,10,1,2	12	25	Fair	Fair	Fair	included bark, multiple trunks at 1ft, moderate dieback
1384	Interior Live Oak	2	9,5	12	25	Fair	Fair	Fair	asymmetrical canopy, included bark, slight lean, moderate dieback
1385	Valley Oak	1	6	10	25	Fair	Fair	Fair	slight lean, included bark, severe dieback
1386	Blue Oak	2	6,5	10	15	Fair	Fair	Fair	asymmetrical canopy, slight lean, minor dieback
1387	Interior Live Oak	7	5,5,7,3,2,1,1	15	20	Fair	Poor-Fair	Fair	multiple trunks at 1ft, included bark, lean, asymmetrical canopy
1388	Valley Oak	1	7	10	22	Poor-Fair	Poor-Fair	Poor-Fair	severe dieback, bark damage, included bark, limb rot
1389	Blue Oak	1	7	10	20	Fair	Fair	Fair	moderate dieback, included bark
1391	Interior Live Oak	1	11	12	27	Fair	Fair	Fair	included bark, moderate dieback, limb death
1392	Blue Oak	1	6	6	17	Fair	Fair	Fair	included bark, severe dieback,
1393	Interior Live Oak	2	7,4	12	25	Fair	Fair	Fair	nest, lean, included bark, asymmetrical canopy
1394	Blue Oak	1	7	12	27	Fair	Fair	Fair	included bark, severe dieback, no canopy
1395	Valley Oak	1	11	12	30	Fair	Fair	Fair	included bark, moderate dieback

Appendix F — Observed Plant and Wildlife Species Lists

Brighton Open Space Area

**Brighton Preserve Area
Plant List**

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Acmispon americanus</i> var. <i>americanus</i>	American bird's foot trefoil	N
<i>Aira caryophylla</i>	Silver hairgrass	NN
<i>Amaranthus californicus</i>	California amaranth	N
<i>Artemisia douglasiana</i>	California mugwort	N
<i>Artemisia dracunculus</i>	Tarragon	N
<i>Avena barbata</i>	Slender oat	NN, I
<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>	Coyote brush	N
<i>Brassica nigra</i>	Black mustard	NN, I
<i>Bromus diandrus</i>	Ripgut grass	NN, I
<i>Bromus hordeaceus</i>	Soft chess	NN, I
<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	NN
<i>Chondrilla juncea</i>	Skeleton weed	NN, I
<i>Cirsium vulgare</i>	Bull thistle	NN, I
<i>Cynodon dactylon</i>	Bermuda grass	NN, I
<i>Cyperus eragrostis</i>	Tall flatsedge	N
<i>Ditttrichia graveolens</i>	Stinkwort	NN, I
<i>Epilobium brachycarpum</i>	Autumn willowweed	N
<i>Epilobium ciliatum</i> cf. ssp. <i>ciliatum</i>	Fringed willowherb	N
<i>Erigeron canadensis</i>	Canada horseweed	N
<i>Euthamia occidentalis</i>	Western goldenrod	N
<i>Festuca perennis</i>	Rye grass	NN, I
<i>Heteromeles arbutifolia</i>	Toyon	N
<i>Heterotheca grandiflora</i>	Telegraph weed	N
<i>Hirschfeldia incana</i>	Short podded mustard	NN, I
<i>Hydrilla verticillata</i>	Hydrilla	NN, I
<i>Hypochaeris glabra</i>	Smooth cat's 'ear	NN, I
<i>Juglans hindsii</i>	Northern california black walnut	N
<i>Juncus effusus</i> ssp. <i>pacificus</i>	Pacific rush	N
<i>Lactuca serriola</i>	Prickly lettuce	NN
<i>Leersia oryzoides</i>	Rice cutgrass	N
<i>Lemna</i> sp.	Duckweed	N
<i>Myriophyllum aquaticum</i>	Parrot's feather	NN
<i>Persicaria</i> cf. <i>hydropiper</i>	Waterpepper	NN
<i>Polygonum aviculare</i> ssp. <i>depressum</i>	Prostrate knotweed	NN
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood	N
<i>Portulaca oleracea</i>	Common purslane	NN
<i>Pyrus calleryana</i>	Callery pear	NN, I
<i>Quercus douglasii</i>	Blue oak	N
<i>Quercus lobata</i>	Valley oak	N
<i>Quercus wislizeni</i> var. <i>wislizeni</i>	Interior live oak	N
<i>Raphanus sativus</i>	Cultivated radish	NN, I
<i>Rubus armeniacus</i>	Himalayan blackberry	NN, I
<i>Rumex crispus</i>	Curly dock	NN, I
<i>Salix exigua</i> var. <i>hindsiana</i>	Sandbar willow	N
<i>Salix laevigata</i>	Red willow	N
<i>Salix lasiandra</i>	Pacific willow	N
<i>Salix lasiolepis</i>	Arroyo willow	N
<i>Schoenoplectus acutus</i> var. <i>occidentalis</i>	Tule	N
<i>Torilis arvensis</i>	Field hedge parsley	NN, I
<i>Toxicodendron diversilobum</i>	Poison oak	N
<i>Trifolium hirtum</i>	Rose clover	I
<i>Typha</i> sp.	Cattail	N
<i>Verbascum blattaria</i>	Moth mullein	NN

Claremont Preserve Area

**Claremont Preserve Area
Plant List**

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Acmispon americanus</i> var. <i>americanus</i>	American bird's foot trefoil	N
<i>Amaranthus californicus</i>	California amaranth	N
<i>Amsinckia intermedia</i>	Common fiddleneck	N
<i>Avena barbata</i>	Slender oat	NN, I
<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>	Coyote brush	N
<i>Brassica nigra</i>	Black mustard	NN, I
<i>Briza minor</i>	Little quaking grass	NN
<i>Bromus diandrus</i>	Ripgut grass	NN, I
<i>Bromus hordeaceus</i>	Soft chess	NN, I
<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	NN
<i>Centaurea solstitialis</i>	Yellow star thistle	NN, I
<i>Centromadia fitchii</i>	Spikeweed	N
<i>Cercis occidentalis</i>	Western redbud	N
<i>Chondrilla juncea</i>	Skeleton weed	NN, I
<i>Cichorium intybus</i>	Chicory	NN
<i>Claytonia parviflora</i> var. <i>parviflora</i>	Miner's lettuce	N
<i>Croton setiger</i>	Turkey-mullein	N
<i>Cuscuta howelliana</i>	Boggs lake dodder	N
<i>Cynodon dactylon</i>	Bermuda grass	NN, I
<i>Cyperus eragrostis</i>	Tall cyperus	N
<i>Deschampsia danthonioides</i>	Annual hairgrass	N
<i>Dichelostemma capitatum</i> ssp. <i>capitatum</i>	Bluedicks	N
<i>Dittrichia graveolens</i>	Stinkwort	NN, I
<i>Eleocharis macrostachya</i>	Common spikerush	N
<i>Elymus caput-medusae</i>	Medusahead	NN, I
<i>Elymus</i> cf. <i>ponticus</i>	Tall wheat grass	NN
<i>Epilobium brachycarpum</i>	Autumn willowweed	N
<i>Epilobium ciliatum</i> cf. ssp. <i>ciliatum</i>	Fringed willowherb	N
<i>Erigeron canadensis</i>	Canada horseweed	N
<i>Erodium botrys</i>	Big heron bill	NN
<i>Eryngium</i> sp.	Button celery	N
<i>Euphorbia ocellata</i> ssp. <i>ocellata</i>	Valley spurge	N
<i>Euthamia occidentalis</i>	Western goldenrod	N
<i>Festuca bromoides</i>	Brome fescue	NN
<i>Festuca perennis</i>	Rye grass	NN, I
<i>Gastridium phleoides</i>	Nit grass	NN
<i>Geranium dissectum</i>	Cut leaved geranium	NN, I
<i>Geranium molle</i>	Crane's bill geranium	NN
<i>Glinus lotoides</i>	Lotus sweetjuice	NN
<i>Helminthotheca echioides</i>	Bristly ox-tongue	NN, I
<i>Heteromeles arbutifolia</i>	Toyon	N
<i>Heterotheca grandiflora</i>	Telegraph weed	N
<i>Holocarpha virgata</i> ssp. <i>virgata</i>	Narrow tarplant	N
<i>Hordeum murinum</i>	Foxtail barley	NN, I
<i>Hypericum perforatum</i> ssp. <i>perforatum</i>	Common st. johnswort	NN, I
<i>Hypochaeris radicata</i>	Hairy cat's ear	NN, I
<i>Juncus</i> cf. <i>balticus</i> ssp. <i>ater</i>	Baltic rush	N
<i>Juncus effusus</i> ssp. <i>pacificus</i>	Pacific rush	N
<i>Kickxia</i> sp.	Fluellin	NN
<i>Lactuca serriola</i>	Prickly lettuce	NN
<i>Lemna</i> sp.	Duckweed	N
<i>Lessingia virgata</i> var. <i>glomerata</i>	Wand lessingia	N
<i>Lupinus bicolor</i>	Miniature Lupine	N
<i>Lythrum hyssopifolia</i>	Hyssop loosestrife	NN, I
<i>Medicago polymorpha</i>	Bur clover	NN, I
<i>Mentha pulegium</i>	Pennyroyal	NN, I

**Claremont Preserve Area
Plant List**

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Muhlenbergia rigens</i>	Deergrass	N
<i>Nerium oleander</i>	Oleander	NN
<i>Paspalum dilatatum</i>	Dallis grass	NN
<i>Pistacia chinensis</i>	Chinese pistachio	NN
<i>Plagiobothrys fulvus</i> var. <i>campestris</i>	Field popcornflower	N
<i>Plantago lanceolata</i>	English plantain	NN, I
<i>Platanus racemosa</i>	California sycamore	N
<i>Polypogon monspeliensis</i>	Rabbitsfoot grass	NN, I
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood	N
<i>Pyrus calleryana</i>	Callery pear	NN, I
<i>Quercus douglasii</i>	Blue oak	N
<i>Quercus wislizeni</i> var. <i>wislizeni</i>	Interior live oak	N
<i>Ranunculus boneriensis</i> var. <i>trisepalus</i>	Vernal pool buttercup	N
<i>Raphanus sativus</i>	Jointed charlock	NN, I
<i>Rubus armeniacus</i>	Himalayan blackberry	NN, I
<i>Rumex crispus</i>	Curly dock	NN, I
<i>Rumex pulcher</i>	Fiddle dock	NN
<i>Salix exigua</i> var. <i>hindsiana</i>	Sandbar willow	N
<i>Salix goosingii</i>	Gooding's willow	N
<i>Salix laevigata</i>	Red willow	N
<i>Salix lasiolepis</i>	Arroyo willow	N
<i>Silybum marianum</i>	Milk thistle	NN, I
<i>Sonchus</i> sp.	Sowthistle	NN
<i>Stipa</i> sp.	Needlegrass	N
<i>Torilis arvensis</i>	Field hedge parsley	NN, I
<i>Triadica sebifera</i>	Chinese tallowtree	NN, I
<i>Trichostema lanceolatum</i>	Vinegarweed	N
<i>Trifolium depauperatum</i> var. <i>Depauperatum</i>	Dwarf sack clover	N
<i>Trifolium fragiferum</i>	Strawberry clover	NN
<i>Trifolium hirtum</i>	Rose clover	NN, I
<i>Triphysaria eriantha</i>	Butter 'n' eggs	N
<i>Triteleia laxa</i>	Ithuriel's spear	N
<i>Typha</i> sp.	Cattail	N
<i>Vicia villosa</i>	Hairy vetch	NN
<i>Xanthium strumarium</i>	Rough cocklebur	N
<i>Zeltnera muehlenbergii</i>	Muehlenberg's centaury	N

**Claremont Preserve Area
Wildlife List**

Scientific Name	Common Name
<i>Aphelocoma californica</i>	Western scrub jay
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Buteo lineatus</i>	Red-shouldered hawk
<i>Calypte anna</i>	Anna's hummingbird
<i>Corixidae</i>	Water boatmen
<i>Fulica americana</i>	American coot
<i>Lepus californicus</i>	Black-tailed jackrabbit
<i>Lithobates catesbeianus</i>	American bullfrog
<i>Meleagris gallopavo</i>	Wild turkey
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Passer domesticus</i>	House sparrow
<i>Sayornis nigricans</i>	Black phoebe
<i>Sceloporus occidentalis</i>	Western fence lizard
<i>Setophaga coronata</i>	Yellow-rumped warbler
<i>Sialia mexicana</i>	Western bluebird
<i>Sitta canadensis</i>	Red-breasted nuthatch
<i>Turdus migratorius</i>	American robin
<i>Zenaida macroura</i>	Mourning dove

Orchard Creek Preserve Area

**Orchard Creek Preserve Area
Plant List**

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Alopecurus saccatus</i>	Pacific foxtail	N
<i>Avena barbata</i>	Slender oat	NN, I
<i>Brassica nigra</i>	Black mustard	NN, I
<i>Briza minor</i>	Little quaking grass	NN
<i>Brodiaea elegans</i>	Harvest brodiaea	N
<i>Bromus diandrus</i>	Ripgut grass	NN, I
<i>Bromus hordeaceus</i>	Soft chess	NN, I
<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	NN
<i>Centaurea solstitialis</i>	Yellow star thistle	NN, I
<i>Centromadia fitchii</i>	Spikeweed	N
<i>Cichorium intybus</i>	Chicory	NN
<i>Croton setiger</i>	Turkey-mullein	N
<i>Deschampsia danthonioides</i>	Annual hairgrass	N
<i>Dichelostemma capitatum</i> ssp. <i>capitatum</i>	Bluedicks	N
<i>Dittrichia graveolens</i>	Stinkwort	NN, I
<i>Eleocharis macrostachya</i>	Common spikerush	N
<i>Elymus caput-medusae</i>	Medusahead	NN, I
<i>Erodium botrys</i>	Big heron bill	NN
<i>Eryngium</i> sp.	Button celery	N
<i>Eryngium vaseyi</i>	Coyote thistle	N
<i>Euphorbia ocellata</i> ssp. <i>ocellata</i>	Valley spurge	N
<i>Festuca bromoides</i>	Brome fescue	NN
<i>Festuca perennis</i>	Rye grass	NN, I
<i>Geranium dissectum</i>	Cut leaved geranium	NN, I
<i>Geranium molle</i>	Crane's bill geranium	NN
<i>Glinus lotoides</i>	Lotus sweetjuice	NN
<i>Helminthotheca echioides</i>	Bristly ox-tongue	NN, I
<i>Hordeum murinum</i>	Foxtail barley	NN, I
<i>Hypericum perforatum</i> ssp. <i>perforatum</i>	Common st. johnswort	NN, I
<i>Juncus bufonius</i>	Common toad rush	N
<i>Juncus</i> sp.	Rush	N
<i>Lactuca serriola</i>	Prickly lettuce	NN
<i>Lasthenia fremontii</i>	Fremont's goldfields	N
<i>Lasthenia glaberrima</i>	Smooth goldfields	N
<i>Leontodon saxatilis</i>	Hawkbit	NN
<i>Medicago polymorpha</i>	Bur clover	NN, I
<i>Mentha pulegium</i>	Pennyroyal	NN, I
<i>Muhlenbergia rigens</i>	Deergrass	N
<i>Paspalum dilatatum</i>	Dallis grass	NN
<i>Plagiobothrys fulvus</i> var. <i>campestris</i>	Field popcornflower	N
<i>Plagiobothrys stipitatus</i>	Stalked popcornflowe	N
<i>Plantago lanceolata</i>	English plantain	NN, I
<i>Polypogon monspeliensis</i>	Rabbitsfoot grass	NN, I
<i>Psilocarphus brevissimus</i>	Short woollyheads	N
<i>Ranunculus aquatilis</i>	Whitewater crowfoot	N
<i>Ranunculus boneriensis</i> var. <i>trisepalus</i>	Vernal pool buttercup	N
<i>Rumex crispus</i>	Curly dock	NN, I
<i>Silybum marianum</i>	Milk thistle	NN, I
<i>Sonchus</i> sp.	Sowthistle	NN
<i>Trichostema lanceolatam</i>	Vinegarweed	N
<i>Trifolium depauperatum</i> var. <i>Depauperatum</i>	Dwarf sack clover	N
<i>Trifolium fragiferum</i>	Strawberry clover	NN
<i>Trifolium hirtum</i>	Rose clover	NN, I
<i>Triphysaria eriantha</i>	Butter 'n' eggs	N
<i>Triteleia hyacinthina</i>	White brodiaea	N
<i>Vicia villosa</i>	Hairy vetch	NN

**Orchard Creek Preserve Area
Wildlife List**

Scientific Name	Common Name
<i>Aphelocoma californica</i>	Western scrub jay
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Charadrius vociferus</i>	Killdeer
<i>Colaptes auratus</i>	Northern flicker
<i>Lepus californicus</i>	Black-tailed jackrabbit
<i>Melospiza crissalis</i>	California towhee
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Sayornis nigricans</i>	Black phoebe
<i>Zenaida macroura</i>	Mourning dove

Stanford Ranch Preserve Area

**Stanford Ranch Preserve Area
Plant List**

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Acer macrophyllum</i>	Bigleaf maple	N
<i>Acmispon americanus</i> var. <i>americanus</i>	American bird's foot trefoil	N
<i>Aesculus californica</i>	California buckeye	N
<i>Alisma lanceolatum</i>	Lanceleaf water plantain	NN
<i>Alnus rhombifolia</i>	White alder	N
<i>Alopecurus saccatus</i>	Pacific foxtail	N
<i>Amaranthus californicus</i>	California amaranth	N
<i>Amsincki intermdia</i>	Comman fiddleneck	N
<i>Andropogon virginicus</i> var. <i>virginicus</i>	Broomsedge bluestem	NN
<i>Asclepias fascicularis</i>	Narrow leaf milkweed	N
<i>Avena barbata</i>	Slender oat	NN, I
<i>Brachypodium distachyon</i>	False brome	NN, I
<i>Brassica nigra</i>	Black mustard	NN, I
<i>Briza minor</i>	Little quaking grass	N
<i>Brodiaea elegans</i>	Harvest brodiaea	N
<i>Brodiaea minor</i>	Dwarf brodiaea	N
<i>Bromus diandrus</i>	Ripgut grass	NN, I
<i>Bromus hordeaceus</i>	Soft chess	NN, I
<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	NN, I
<i>Castilleja attenuata</i>	Narrow leaved owl's clover	N
<i>Castilleja campestris</i>	Vernal pool indian paintbrush,	N
<i>Catalpa speciosa</i>	Northern catalpa	NN
<i>Centaurea solstitialis</i>	Yellow star thistle	NN, I
<i>Cephalanthus occidentalis</i>	Common buttonbush	N
<i>Chondrilla juncea</i>	Skeleton weed	NN, I
<i>Cichorium intybus</i>	Chicory	NN
<i>Cirsium vulgare</i>	Bull thistle	NN, I
<i>Convolvulus arvensis</i>	Field bindweed	NN
<i>Cordylanthus mollis</i> ssp. <i>hispidus</i>	Hispid bird's-beak	N RARE
<i>Cortaderia</i> sp.	Pampas grass	NN, I
<i>Crassula aquatica</i>	Aquatic pygmy weed	N
<i>Croton setiger</i>	Turkey-mullein	N
<i>Cynodon dactylon</i>	Bermuda grass	NN, I
<i>Cynosurus echinatus</i>	Annual dogtail	NN, I
<i>Cyperus eragrostis</i>	Tall cyperus	N
<i>Deschampsia danthonioides</i>	Annual hairgrass	N
<i>Dichelostema capitatum</i>	Blue dicks	N
<i>Digitaria sanguinalis</i>	Hairy crabgrass	NN
<i>Dittrichia graveolens</i>	Stinkwort	NN, I
<i>Downingia bicornuta</i>	Bristled downingia	N
<i>Downingia cuspidata</i>	Toothed downingia	N
<i>Downingia ornatissima</i>	Horned downingia	N
<i>Echinochloa</i> cf. <i>crus -galli</i>	Barnyard grass	NN
<i>Eleocharis acicularis</i>	Needle spike rush	N
<i>Eleocharis macrostachya</i>	Spikerush	N
<i>Elymus caput-medusae</i>	Medusahead	NN, I
<i>Elymus caput-medusae</i>	Medusa head	NN, I
<i>Elymus</i> cf. <i>ponticus</i>	Tall wheat grass	NN
<i>Elymus glaucus</i>	Blue wild rye	N
<i>Epilobium brachycarpum</i>	Autumn willowweed	N
<i>Epilobium ciliatum</i>	Willowherb	NN
<i>Erigeron canadensis</i>	Canada horseweed	N

**Stanford Ranch Preserve Area
Plant List**

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Erodium botrys</i>	Big heron bill	NN
<i>Eryngium vaseyi</i>	Coyote thistle	N
<i>Eschscholzia californica</i>	California poppy	N
<i>Eucalyptus</i> sp.	Eucalyptus	NN
<i>Euphorbia ocellata</i> ssp. <i>ocellata</i>	Valley spurge	N
<i>Festuca bromoides</i>	Brome fescue	NN
<i>Festuca perennis</i>	Rye grass	NN, I
<i>Ficus carica</i>	Edible fig	NN, I
<i>Galium aparine</i>	Cleavers	N
<i>Geranium dissectum</i>	Wild geranium	NN, I
<i>Geranium molle</i>	Crane's bill geranium	NN
<i>Glyceria</i> sp.	Mannagrass	(NN)
<i>Helminthotheca echioides</i>	Bristly ox-tongue	NN, I
<i>Hirschfeldia incana</i>	Short podded mustard	NN, I
<i>Holocarpha virgata</i> ssp. <i>virgata</i>	Narrow tarplant	NN
<i>Hordeum marinum</i>	Seaside barley	NN
<i>Hordeum murinum</i>	Foxtail barley	NN, I
<i>Hypochaeris glabra</i>	Smooth cat's ear	NN, I
<i>Juncus bufonius</i>	Common toad rush	N
<i>Juncus</i> cf. <i>balticus</i> ssp. <i>ater</i>	Baltic rush	N
<i>Juncus effusus</i> ssp. <i>pacificus</i>	Pacific rush	N
<i>Juncus</i> sp.	Rush	N
<i>Lactuca serriola</i>	Prickly lettuce	NN
<i>Lasthenia californica</i>	California goldfields	N
<i>Lasthenia fremontii</i>	Fremont's goldfields	N
<i>Lasthenia glaberrima</i>	Smooth goldfields	N
<i>Layia fremontii</i>	Fremont layia	N
<i>Lemna</i> sp.	Duckweed	N
<i>Leontodon saxatilis</i> ssp. <i>longirostris</i>	Hawkbit	NN
<i>Lysmachia arvensis</i>	Scarlet pimpernel	NN
<i>Lythrum hyssopifolia</i>	Hyssop loosestrife	NN, I
<i>Marrubium vulgare</i>	White horehound	NN, I
<i>Medicago polymorpha</i>	California burclover	NN, I
<i>Mentha pulegium</i>	Pennyroyal	NN, I
<i>Mentha spicata</i>	Spearmint	NN
<i>Muhlenbergia rigens</i>	Deergrass	N
<i>Navarretia intertexta</i>	Interwoven navarretia	N
<i>Navarretia leucocephala</i>	White headed navarretia	N
<i>Olea europaea</i>	Olive	NN, I
<i>Panicum</i> cf. <i>capillare</i>	Witchgrass	N
<i>Paspalum dilatatum</i>	Dallis grass	NN
<i>Persicaria</i> sp.	Smartweed	(N)
<i>Phalaris</i> cf. <i>minor</i>	Little seed canarygrass	NN
<i>Phoradendron leucarpum</i> ssp. <i>macrophyllum</i>	Mistletoe	N
<i>Phyla nodiflora</i>	Lippia	N
<i>Phyllostachys</i> sp.	Bamboo	NN
<i>Phytolacca americana</i> var. <i>americana</i>	American pokeweed	NN, I
<i>Pilularia americana</i>	American pillwort	N
<i>Plagiobothrys fulvus</i>	Fulvous popcorn flower	N
<i>Plagiobothrys greenei</i>	Greene's allocarya	N
<i>Plagiobothrys stipitatus</i>	Stalked popcornflower	N
<i>Plantago elongata</i>	Annual coast plantago	N

**Stanford Ranch Preserve Area
Plant List**

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Plantago lanceolata</i>	English plantain	NN, I
<i>Pogogyne zizyphoroides</i>	Sacramento mint	N
<i>Polygonum aviculare</i> ssp. <i>depressum</i>	Prostrate knotweed	NN
<i>Polygonum</i> sp.	Smartweed	N
<i>Polypogon monspeliensis</i>	Rabbitsfoot grass	NN, I
<i>Populus fremontii</i>	Fremont cottonwood	N
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood	N
<i>Psilocarphus brevissimus</i>	Short woollyheads	N
<i>Punica granatum</i>	Pomegranate	NN
<i>Pyracantha</i> sp.	Firethorn	NN
<i>Pyrus calleryana</i>	Callery pear	NN, I
<i>Quercus douglasii</i>	Blue oak	N
<i>Quercus lobata</i>	Valley oak	N
<i>Quercus wislizeni</i> var. <i>wislizeni</i>	Interior live oak	N
<i>Ranunculus bonariensis</i>	Vernal pool indian paintbrush	N
<i>Robinia pseudoacacia</i>	Black locust	NN, I
<i>Rosa</i> sp.	Rose	NN
<i>Rosmarinus officinalis</i>	Rosemary	NN
<i>Rubus armeniacus</i>	Himalayan blackberry	NN, I
<i>Rumex crispus</i>	Curly dock	NN, I
<i>Rumex pulcher</i>	Fiddle dock	NN
<i>Salix babylonica</i>	Weeping willow	NN
<i>Salix</i> cf. <i>lasiandra</i> var. <i>lasiandra</i>	Pacific willow	N
<i>Salix exigua</i> var. <i>hindsiana</i>	Sandbar willow	N
<i>Salix goodingii</i>	Gooding's willow	N
<i>Salix lasiolepis</i>	Arroyo willow	N
<i>Sanicula bipinnatifida</i>	Purple sanicle	N
<i>Schoenoplectus acutus</i> var. <i>occidentalis</i>	Tule	N
<i>Silybum marianum</i>	Blessed milkthistle	NN, I
<i>Sonchus oleraceus</i>	Sow thistle	NN
<i>Sorghum halepense</i>	Johnsongrass	NN
<i>Stipa</i> sp.	Needlegrass	N
<i>Toxicodendron diversilobum</i>	Poison oak	N
<i>Triadica sebifera</i>	Chinese tallowtree	NN, I
<i>Trifolium depauperatum</i>	Cowbag clover	N
<i>Trifolium dubium</i>	Shamrock clover	NN
<i>Trifolium hirtum</i>	Rose clover	NN, I
<i>Trifolium</i> sp.	Clover	/
<i>Triglochin scilloides</i>	Flowering-quillwort	N
<i>Triteleia hyacinthina</i>	White brodiaea	N
<i>Typha</i> sp.	Cattail	N
Veronica peregrina	Hairy purslane speedwell	N
<i>Vicia</i> sp.	Vetch	/
<i>Vicia villosa</i>	Hairy vetch	NN
<i>Vitis californica</i>	California grape	N
<i>Washingtonia</i> cf. <i>robusta</i>	Mexican fan palm	NN, I
<i>Xanthium strumarium</i>	Rough cocklebur	N
<i>Zeltnera muehlenbergii</i>	Muehlenberg's centaury	N

**Stanford Ranch Preserve Area
Wildlife List**

Scientific Name	Common Name
<i>Anas platyrhynchos</i>	Mallard
<i>Aphelocoma californica</i>	Western scrub-jay
<i>Ardea alba</i>	Great egret
<i>Ardea herodias</i>	Great blue heron
<i>Branta canadensis</i>	Canada Goose
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Callipepla californica</i>	California quail
<i>Canis latrans</i>	Coyote
<i>Cathartes aura</i>	Turkey vulture
<i>Ceryle alcyon</i>	Belted king fisher
<i>Clemmys marmorata</i>	Western pond turtle
<i>Colaptes auratus</i>	Northern flicker
<i>Columba livia</i>	Rock pigeon
<i>Haemorhous mexicanus</i>	House finch
<i>Junco hyemalis</i>	Dark-eyed Junco
<i>Lampropeltis californiae</i>	King snake
<i>Lepus californicus</i>	Black-tailed jackrabbit
<i>Melanerpes formicivorus</i>	Acorn woodpecker
<i>Meleagris gallopavo</i>	Wild turkey
<i>Odocoileus hemionus</i>	Black-tailed deer
<i>Passerculus sandwichensis</i>	Savannah sparrow
<i>Phasianus colchicus</i>	Ring-necked pheasant
<i>Pipilo maculatus</i>	Spotted towhee
<i>Procyon lotor</i>	Raccoon
<i>Pseudacris sierra</i>	Sierran treefrog
<i>Sayornis nigricans</i>	Black phoebe
<i>Sceloporus occidentalis</i>	Western fence lizard
<i>Tyto alba</i>	Barn owl
<i>Zenaida macroura</i>	Mourning dove

Sunset West Preserve Area

**Sunset West Preserve Area
Plant List**

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Acmispon americanus</i> var. <i>americanus</i>	American bird's foot trefoil	N
<i>Adiantum jordanii</i>	California maidenhair fern	N
<i>Aira caryophyllea</i>	Shiver grass	NN
<i>Alnus rhombifolia</i>	White alder	N
<i>Alopecurus saccatus</i>	Pacific foxtail	N
<i>Amaranthus californicus</i>	California amaranth	N
<i>Ammania robusta</i>	Grand ammania	N
<i>Andropogon virginicus</i> var. <i>virginicus</i>	Broomsedge bluestem	NN
<i>Avena barbata</i>	Slender oat	NN, I
<i>Azolla filiculoides</i>	American water fern	N
<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>	Coyote brush	N
<i>Briza minor</i>	Little quaking grass	N
<i>Brodiaea elegans</i>	Harvest brodiaea	N
<i>Brodiaea minor</i>	Dwarf brodiaea	N
<i>Bromus diandrus</i>	Ripgut grass	NN, I
<i>Bromus hordeaceus</i>	Soft chess	NN, I
<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	NN, I
<i>Catalpa speciosa</i>	Northern catalpa	NN
<i>Centaurea solstitialis</i>	Yellow star thistle	NN, I
<i>Centromadia fitchii</i>	Spikeweed	N
<i>Chondrilla juncea</i>	Skeleton weed	NN, I
<i>Cirsium vulgare</i>	Bull thistle	NN, I
<i>Convolvulus arvensis</i>	Field bindweed	NN
<i>Cortaderia</i> sp.	Pampas grass	NN, I
<i>Crassula aquatica</i>	Aquatic pygmy weed	N
<i>Croton setiger</i>	Turkey-mullein	N
<i>Cuscuta</i> sp.	Dodder	N
<i>Cynodon dactylon</i>	Bermuda grass	NN, I
<i>Cynosurus echinatus</i>	Annual dogtail	NN, I
<i>Cyperus difformis</i>	Variable flatsedge	NN
<i>Cyperus eragrostis</i>	Tall flatsedge	N
<i>Deschampsia danthonioides</i>	Annual hairgrass	N
<i>Digitaria sanguinalis</i>	Hairy crabgrass	NN
<i>Dittrichia graveolens</i>	Stinkwort	NN, I
<i>Downingia bicornuta</i>	Bristled downingia	N
<i>Downingia ornatissima</i>	Horned downingia	N
<i>Eichhornia crassipes</i>	Common water hyacinth	NN, I
<i>Eleocharis acicularis</i>	Needle spike rush	N
<i>Eleocharis macrostachya</i>	Spikerush	N
<i>Elymus caput-medusae</i>	Medusahead	NN, I
<i>Elymus caput-medusae</i>	Medusa head	NN, I
<i>Epilobium brachycarpum</i>	Autumn willowweed	N
<i>Epilobium densiflorum</i>	Dense boisduvalia	N
<i>Erigeron canadensis</i>	Canada horseweed	N
<i>Erodium botrys</i>	Broad leaf filaree	NN
<i>Erodium cicutarium</i>	Red stemmed filaree	NN, I
<i>Eryngium</i> sp.	Button celery	N
<i>Eryngium vaseyi</i>	Coyote thistle	N
<i>Euphorbia ocellata</i> ssp. <i>ocellata</i>	Valley spurge	N
<i>Euthamia occidentalis</i>	Western goldenrod	N
<i>Festuca bromoides</i>	Brome fescue	NN
<i>Festuca myuros</i>	Rattail sixweeks grass	NN, I
<i>Festuca perennis</i>	Rye grass	NN, I
<i>Ficus carica</i>	Edible fig	NN, I
<i>Galium aparine</i>	Common bedstraw	N

**Sunset West Preserve Area
Plant List**

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Geranium molle</i>	Crane's bill geranium	NN
<i>Glyceria declinata</i>	Waxy mannagrass	N
<i>Glyceria</i> s p.	Mannagrass	(NN)
<i>Gratiola ebracteata</i>	Bractless hedge hyssop	N
<i>Helminthotheca echioides</i>	Bristly ox-tongue	NN, I
<i>Heterotheca grandiflora</i>	Telegraph weed	N
<i>Hirschfeldia incana</i>	Short podded mustard	NN, I
<i>Holocarpha virgata</i> ssp. <i>virgata</i>	Narrow tarplant	N
<i>Hordeum marinum</i>	Seaside barley	NN
<i>Hordeum murinum</i>	Foxtail barley	NN, I
<i>Juncus bufonius</i>	Common toad rush	N
<i>Juncus cf. balticus</i> ssp. <i>ater</i>	Baltic rush	N
<i>Juncus effusus</i> ssp. <i>pacificus</i>	Pacific rush	N
<i>Juncus oxymeris</i>	Pointed rush	N
<i>Juncus</i> sp.	Rush	N
<i>Lactuca serriola</i>	Prickly lettuce	NN
<i>Lasthenia californica</i>	California goldfields	N
<i>Lasthenia fremontii</i>	Fremont's goldfields	N
<i>Lasthenia glaberrima</i>	Smooth goldfields	N
<i>Lathyrus angulatus</i>	Angled pea vine	NN
<i>Layia fremontii</i>	Fremont layia	N
<i>Leersia oryzoides</i>	Rice cutgrass	N
<i>Lemna</i> sp.	Duckweed	N
<i>Leontodon saxatilis</i>	Hawkbit	NN
<i>Ludwigia</i> sp.	Water primrose	(NN)
<i>Lythrum hyssopifolia</i>	Loosestrife	NN, I
<i>Mentha pulegium</i>	Pennyroyal	NN, I
<i>Mimulus guttatus</i>	Seep monkey flower	N
<i>Muhlenbergia rigens</i>	Deergrass	N
<i>Navarretia leucocephala</i>	White headed navarretia	N
<i>Oenothera</i> sp.	Evening primrose	N
<i>Paspalum dilatatum</i>	Dallis grass	NN
<i>Persicaria</i> sp.	Knotweed	(N)
<i>Phalaris</i> sp.	Canary grass	NN
<i>Physalis cf. angulata</i>	Cutleaf groundcherry	N
<i>Pilularia americana</i>	American pillwort	N
<i>Plagiobothrys greenei</i>	Greene's allocarya	N
<i>Plagiobothrys stipitatus</i>	Stalked popcornflower	N
<i>Plantago elongata</i>	Annual coast plantago	N
<i>Platanus</i> sp.	Planetree	NN
<i>Pogogyne zizyphoroides</i>	Sacramento mint	N
<i>Polygonum</i> sp.	Smartweed	N
<i>Polypogon monspeliensis</i>	Rabbitsfoot grass	NN, I
<i>Populus fremontii</i>	Fremont cottonwood	N
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood	N
<i>Portulaca oleracea</i>	Common purslane	NN
<i>Psilocarphus brevissimus</i>	Short woollyheads	N
<i>Psilocarphus brevissimus</i> var. <i>brevissimus</i>	Short woollyheads	N
<i>Pyrus calleryana</i>	Callery pear	NN, I
<i>Quercus lobata</i>	Valley oak	N
<i>Quercus wislizeni</i> var. <i>wislizeni</i>	Interior live oak	N
<i>Ranunculus aquatilis</i>	Whitewater crowfoot	N
<i>Ranunculus bonariensis</i>	Vernal pool indian paintbrush	N
<i>Robinia pseudoacacia</i>	Black locust	NN, I
<i>Rubus armeniacus</i>	Himalayan blackberry	NN, I

Sunset West Preserve Area
Plant List

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Rumex crispus</i>	Curly dock	NN, I
<i>Rumex pulcher</i>	Fiddle dock	NN
<i>Salix babylonica</i>	Weeping willow	NN
<i>Salix exigua</i>	Narrow leaved willow	N
<i>Salix exigua var. hindsiana</i>	Sandbar willow	N
<i>Salix goodingii</i>	Gooding's 'willow	N
<i>Salix laevigata</i>	Red willow	N
<i>Salix lasiandra var. lasiandra</i>	Pacific willow	N
<i>Salix sp.</i>	Willow	N
<i>Salsola tragus</i>	Tumblweed	NN, I
<i>Schoenoplectus acutus var. occidentalis</i>	Tule	N
<i>Sorghum halepense</i>	Johnsongrass	NN
<i>Spergularia rubra</i>	Purple sand spurry	NN
<i>Stipa miliacea var. miliacea</i>	Smilo grass	NN, I
<i>Stipa s p.</i>	Needlegrass	N
<i>Tamarix sp.</i>	Tamarisk	NN, I
<i>Torilis arvensis</i>	Field hedge parsley	NN, I
<i>Triadica sebifera</i>	Chinese tallowtree	NN, I
<i>Trichostema lanceolatum</i>	Vinegar weed	N
<i>Trifolium depauperatum</i>	Cowbag clover	N
<i>Trifolium dubium</i>	Shamrock clover	NN
<i>Trifolium hirtum</i>	Rose clover	NN, I
<i>Trifolium sp.</i>	Clover	/
<i>Triglochin scilloides</i>	Flowering-quillwort	N
<i>Triteleia hyacinthina</i>	White brodiaea	N
<i>Typha sp.</i>	Cattail	N
<i>Veronica peregrina</i>	Hairy purslane speedwell	N
<i>Vicia sp.</i>	Vetch	/
<i>Vicia villosa</i>	Hairy vetch	NN
<i>Xanthium strumarium</i>	Rough cocklebur	N

**Sunset West Preserve Area
Wildlife List**

Scientific Name	Common Name
<i>Agelaius phoeniceus</i>	Red-winged blackbird
<i>Anas platyrhynchos</i>	Mallard
<i>Aphelocoma californica</i>	Western scrub-jay
<i>Ardea alba</i>	Great egret
<i>Ardea herodias</i>	Great blue heron
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Calypte anna</i>	Anna's Hummingbird
<i>Canis latrans</i>	Coyote
<i>Cathartes aura</i>	Turkey vulture
<i>Ceryle alcyon</i>	Belted kingfisher
<i>Charadrius vociferus</i>	Killdeer
<i>Colaptes auratus</i>	Northern flicker
<i>Columba livia</i>	Rock pigeon
<i>Corvus brachyrhynchos</i>	American crow
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Haemorhous mexicanus</i>	House finch
<i>Junco hyemalis</i>	Dark-eyed Junco
<i>Lampropeltis californica</i>	King snake
<i>Lepus californicus</i>	Black-tailed jackrabbit
<i>Lithobates catesbeianus</i>	Canada goose
<i>Lithobates catesbeianus</i>	American bullfrog
<i>Megaceryle alcyon</i>	Belted kingfisher
<i>Melanerpes formicivorus</i>	Acorn woodpecker
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Passer domesticus</i>	House sparrow
<i>Passerculus sandwichensis</i>	Savannah sparrow
<i>Phasianus colchicus</i>	Ring-necked pheasant
<i>Pipilo maculatus</i>	Spotted towhee
<i>Procyon lotor</i>	Raccoon
<i>Sayornis nigricans</i>	Black phoebe
<i>Sceloporus occidentalis</i>	Western fence lizard
<i>Troglodytes aedon</i>	House wren
<i>Turdus migratorius</i>	American robin
<i>Zenaida macroura</i>	Mourning dove

Whitney Ranch Preserve Area

**Whitney Ranch Preserve Area
Plant List**

Scientific Name	Common Name	Native, Non-native, Invasive
<i>Avena fatua</i>	Wild oat	NN
<i>Brassica rapa</i>	Field mustard	NN
<i>Bromus diandrus</i>	Ripgut grass	NN
<i>Bromus hordeaceus</i>	Soft chess	NN
<i>Carduus pycnocephalus</i>	Italian thistle	NN,I
<i>Centaurea solstitialis</i>	Yellow star thistle	NN,I
<i>Elymus caput-medusae</i>	Medusahead	NN,I
<i>Festuca perennis</i>	Rye grass	NN
<i>Ficus carica</i>	Edible fig	NN,I
<i>Foeniculum vulgare</i>	Sweet fennel	NN, I
<i>Galium aparine</i>	Common bedstraw	N
<i>Plantago lanceolata</i>	English plantain	NN
<i>Pyrus calleryana</i>	Callery pear	NN,I
<i>Raphanus sativus</i>	Wild radish	NN,I
<i>Rubus armeniacus</i>	Himalayan blackberry	NN,I
<i>Rumex crispus</i>	Curly dock	NN,I
<i>Triadica sebifera</i>	Chinese tallowtree	NN,I
<i>Trifolium dubium</i>	Little hop clover	NN
<i>Trifolium hirtum</i>	Rose clover	NN,I
<i>Acmispon purshianus</i>	Spanish lotus	NN,I
<i>Avena fatua</i>	Cultivated Oat	NN
<i>Baccharis pilularis</i>	Coyote brush	N
<i>Centromadia fitchii</i>	Spikeweed	N
<i>Croton setigerus</i>	Turkey-mullein	N
<i>Cyperus eragrostis</i>	Nutsedge	N
<i>Datura sp.</i>	Jimson weed	NN
<i>Eleocharis macrostachya</i>	Spikerush	N
<i>Epilobium ciliatum</i>	Willowherb	N
<i>Holocarpha virgata</i>	Tarweed	N
<i>Hordeum marinum</i>	Mediterranean barley	NN
<i>Juncus patens</i>	Spreading rush	N
<i>Lactuca serriola</i>	Prickly lettuce	NN,I
<i>Mentha pulegium</i>	Pennyroyal	NN,I
<i>Paspalum dilatatum</i>	Dallis grass	NN,I
<i>Polygonum sp.</i>	Knotweed	NN
<i>Polypogon monspeliensis</i>	Rabbitsfoot grass	NN,I
<i>Populus fremontii ssp. fremontii</i>	Fremont cottonwood	N
<i>Salix laevigata</i>	Red willow	N
<i>Trichostema lanceolatum</i>	Vinegar weed	N
<i>Typha angustifolia</i>	Narrow-leaved cattail	N

**Whitney Ranch Preserve Area
Wildlife List**

Scientific Name	Common Name
<i>Melanerpes formicivorus</i>	Acorn woodpecker
<i>Tyto alba</i>	Barn owl
<i>Aphelocoma californica</i>	Western scrub-jay
<i>Ardea alba</i>	Great egret
<i>Ardea herodias</i>	Great blue heron
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Calypte anna</i>	Anna's hummingbird
<i>Canis latrans</i>	Coyote
<i>Cathartes aura</i>	Turkey vulture
<i>Colaptes auratus</i>	Northern flicker
<i>Columba livia</i>	Rock dove
<i>Elgaria multicarinata</i>	Southern alligator lizard
<i>Lampropeltis californiae</i>	King snake
<i>Lepus californicus</i>	Black-tailed jackrabbit
<i>Lithobates catesbeianus</i>	Bull frog
<i>Masticophis lateralis</i>	California whipsnake
<i>Mimus polyglottos</i>	Mockingbird
<i>Phasianus colchicus</i>	Ring-necked pheasant
<i>Sayornis nigricans</i>	Black phoebe
<i>Sceloporus occidentalis</i>	Western fence lizard
<i>Zenaida macroura</i>	Mourning dove