

STAFF REPORT

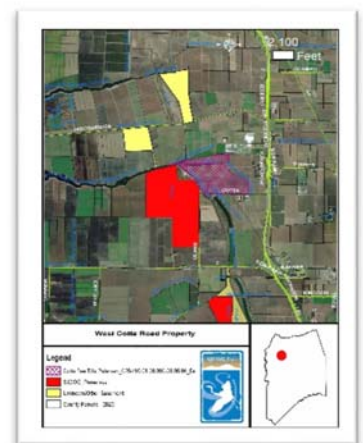
SUBJECT: Cotta Road Preserve Purchase and Preserve Management Plan

RECOMMENDED ACTION: Motion to 1) Approve the Property Purchase and 2) Approve the Preserve Management Plan (PMP) for the Preserve Site

DISCUSSION:

SUMMARY:

The West Cotta Road property under consideration totals of 428.92 +/- acres. SJCOG, Inc. seeks to purchase the property in fee title under the habitat for mitigation using the buy/ease/sell model. After enhancements are completed, the land will be sold to recover a portion of the purchase costs with an easement in place. The property is located west of I-5 and just north of Hwy 12 to the west of the City of Lodi in the Delta Zone. The potential preserve is adjacent to existing SJCOG, Inc. preserves in the Delta Zone area, also shown in the attachment 1 and 2.



With the fee title purchase, SJCOG, Inc. staff has written this draft PMP to be consistent with the existing Preserve Management Plans of the agricultural habitat in the Delta Zone for management economies of scale for species under the SJMSCP. The easement will serve as habitat for various species while providing mitigation for agricultural impacts under the habitat plan in the Delta and Central Zones.

There have been historical records of Swainson's hawk and other species on/near the property in the California Natural Diversity Database (CNDDB).

RECOMMENDATION:

A motion to recommend the SJCOG, Inc. Board to

- 1) approve the property purchase, and
- 2) approve the preserve management plan.

FISCAL IMPACT:

SJCOG, Inc. would purchase the fee title of 428.92 +/- acres under the SJMSCP at \$6,433,800 (\$15,000 per acre).

An endowment fund would be established for the property consisting of \$2,006,582.12 (428.92 +/- acres x \$4,678.22 per acre).

During the restoration projects being completed on the land, SJCOG, Inc. will work with a farming entity to farm the land under an agricultural lease until the land is sold in fee title with a habitat easement in place to recoup a portion of the purchase price.

BACKGROUND:



The Cotta Road property is located west of I-5 and north of Highway 12 to the west of the City of Lodi in the Delta Zone. The property consists of an active row crop which serves as foraging habitat for several SJMSCP covered species and some riparian habitat along the waterway. The future planned conservation easement would cover 420 +/- acres of existing agricultural land and riparian to mitigate for this project's development impacts in the Delta and Central Zone under the SJMSCP.

The draft PMP (attachment 3), prepared by ICF, reflects the existing Preserve Management Plans for agricultural land preserves in the Delta Zone for economy of scale on long term monitoring activities. There are enhancements planned to the landscape for nesting trees on a portion of the property and fields. Any additional future enhancements not displayed in Table 1 would be brought back as a supplemental PMP in cooperation with the future landowner.



Table 1 – Enhancements for Row and Field Crop/Riparian Preserves

Enhancement Potential Under SJMSCP	Y	N	N/A
Use of Herbicides, pesticides, and/or rodenticide in accordance with Sect. 5.4.5(M) & 5.4.7.1	X		
Create, expand or restore riparian area to enhance nesting	X		
Plant elderberry plants for VELB	X		
Enhance foraging habitat using native grass and forb species (Appendix N)	X		
Install roosting or nest sites and platforms	X		
Fencing of riparian areas		X	
Install bat boxes			X
Maintain water quality within creeks and wetlands (e.g. red-legged frog habitat)			X
Create burrowing owl burrows	X		
Eliminate invasive and undesirable species	X		
Plant vegetation (e.g. tules, blackberry thickets & cattails for tricolor blackbird/GGS)	X		

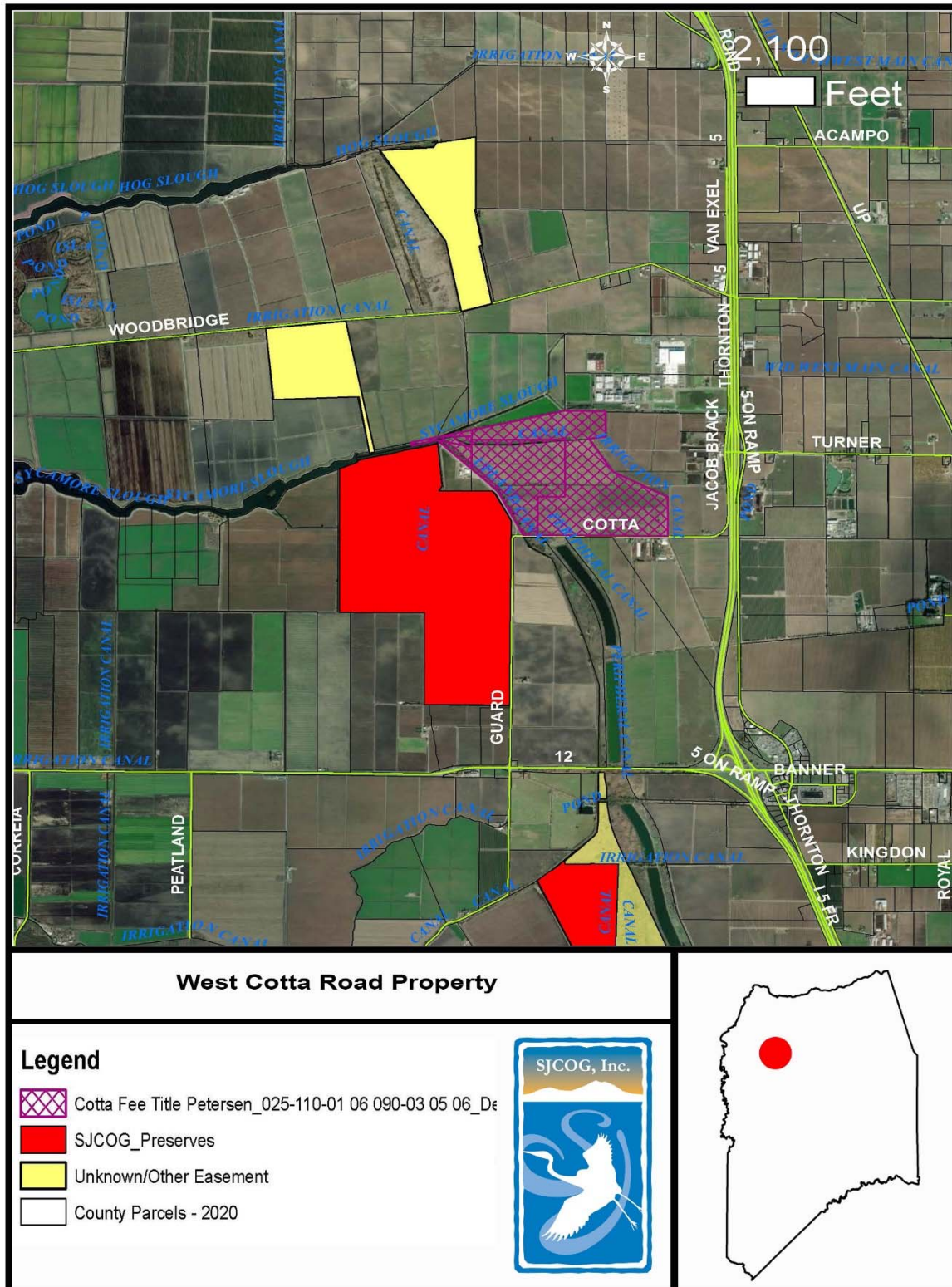
COMMITTEE ACTIONS:

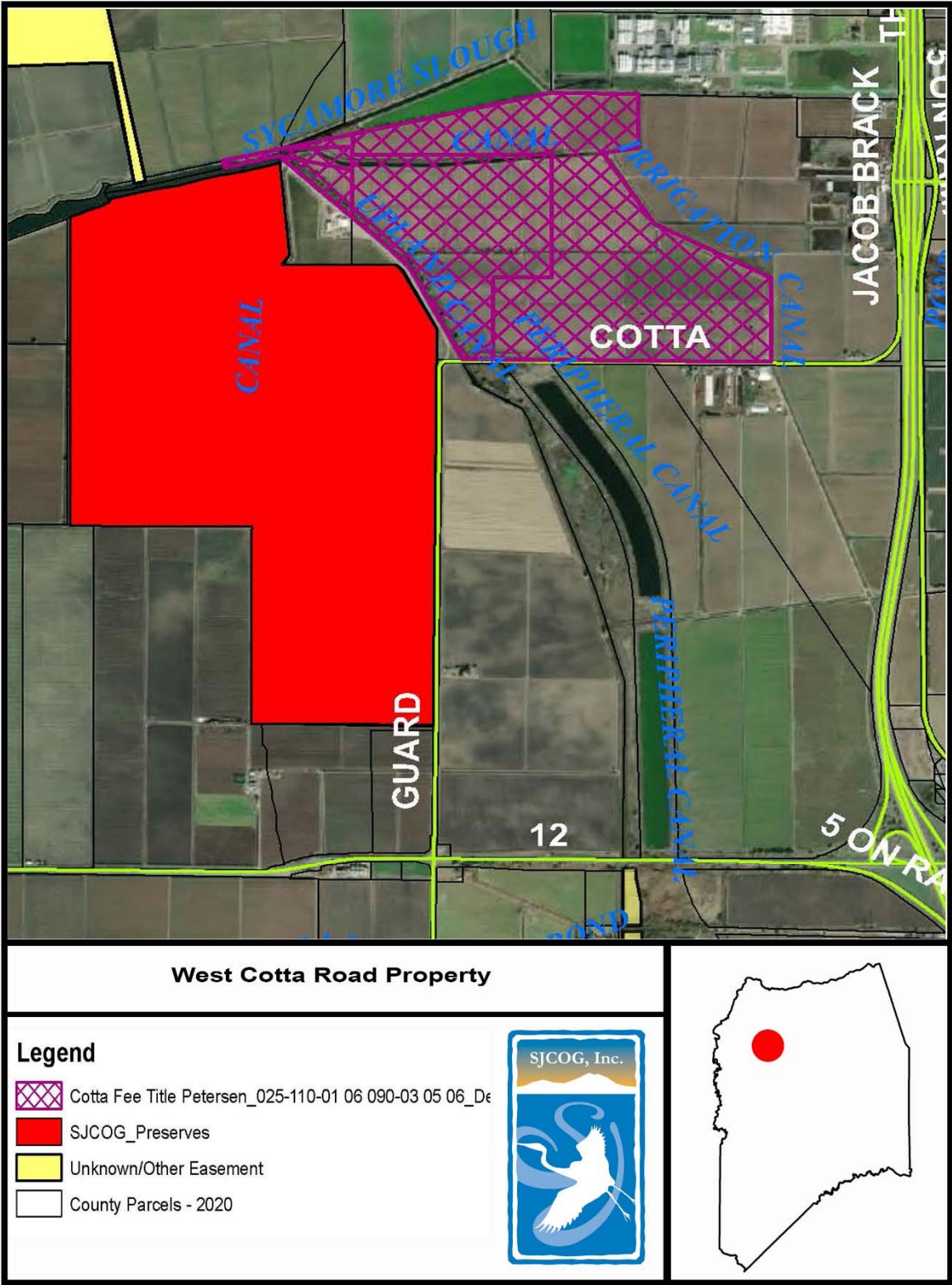
- Habitat Technical Advisory Committee: Recommended Approval
- SJCOG, Inc. Board – Action Required

ATTACHMENTS:

1. Overview Preserve Location Map
2. Preserve Location Map
3. Preserve Management Plan

Prepared by: Steven Mayo, Program Manager





ATTACHMENT 3

DRAFT PRESERVE MANAGEMENT PLAN FOR THE COTTA ROAD PROPERTY PRESERVE

PREPARED FOR:

SJCOG, Inc.
555 East Weber Street
Stockton, CA 95202
Contact: Steve Mayo
209.235.0600

PREPARED BY:

ICF
980 9th Street, Suite 1200
Sacramento, CA 95814
Contact: Doug Leslie
916.231.9560

October 20, 2020



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Acronyms and Abbreviations

CNDDDB	California Natural Diversity Database
GIS	geographic information systems
HTAC	Habitat Technical Advisory Committee
CRPP	Cotta Road Property Preserve
SJCOG	SJCOG, Inc.
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
USGS	U.S. Geological Survey

Chapter 1

Introduction

SJCOG, Inc., is currently implementing the *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan* (SJMSCP)¹ (San Joaquin Council of Governments 2001). The principal biological goal of the SJMSCP (the Plan) is to maintain habitat of sufficient quality and quantity to conserve populations of all fish, wildlife, and plant species covered by the Plan. As part of this Plan, lands within the SJMSCP Plan Area are acquired as preserves from willing landowners through either conservation easements or fee title purchase.

This document is the Preserve Management Plan (PMP) for the Cotta Road Property Preserve (CRPP), currently in the process of being purchased by SJCOG, Inc. SJCOG Inc intends to purchase the property, install several preserve enhancements, place a conservation easement on the property, and sell it in fee title to a willing purchaser. The five parcels addressed in this PMP total to approximately 428 acres. The preserve will be incorporated into the preserve system as a row and field crop preserve.

The CRPP is intended to offset impacts resulting from the conversion of agricultural lands primarily within the Central Zone, as allowed in Section 5.1.2.6 of the Plan.

1.1 Purpose of the Preserve Management Plan

The PMP sets forth specific guidelines regarding land management and monitoring activities to ensure the landowner(s) and SJCOG, Inc., are in agreement with the conditions of the conservation easement and the manner in which preserve lands will be managed and monitored.

The PMP describes the baseline biological conditions of the property; states the goals and objectives of management; and describes the ongoing land management activities, including permitted and prohibited uses of the property and any affirmative obligations of the landowner(s).

The PMP also sets forth guidelines for adaptive management as required under the SJMSCP. Adaptive management is a systematic process for continually improving management policies and practices by learning from the outcomes of operational programs.

1.2 Preserve Location

The CRPP is located across the Upland Canal from the Nuss preserve on Cotta Road, approximately 0.32 miles west of Interstate 5, near Lodi California (Figure 2).

¹ San Joaquin County Council of Governments. 2001. *San Joaquin County Multi-Species Habitat Conservation & Open Space Plan*. Stockton, CA. Available: <https://www.sjcog.org/DocumentCenter/View/5/Habitat-Planpdf?bidId=> Accessed October 20, 2020.

Table 1. Cotta Road Property Preserve Information

Assessor's Parcel Numbers	025-110-01, 025-110-06, 025-090- 03, 025-090-05, 025-090-06
Acreage	420 acres
SJMSCP Index Zone	Delta
USGS 7.5-minute quadrangle	Thornton
Township	3N, 4N
Range	5E
Section	2, 3, 34, 35

The CRPP adds substantially to a contiguous block of land protected by SJCOG, Inc. under easement that includes the Nuss Preserve, and furthers the objective of consolidation of the preserve system (Figure 2).

1.3 Land Ownership and Management

The parties responsible for managing CRPP lands in accordance with the PMP are listed below.

Landowner

SJCOG Inc.
Contact: Steve Mayo
555 East Weber Street
Stockton, CA 95202
Phone 209.235.0600

Conservation easement holder

SJCOG, Inc.
555 East Weber Street
Stockton, CA 95202
Contact: Steven Mayo
Phone: 209.235.0600

Land manager

ICF
980 9th Street, Suite 1200
Sacramento, CA 95814
Contact: Doug Leslie
Phone: 916.231.9560

Baseline Preserve Characteristics, Goals and Objectives

As noted above, the CRPP is an approximately 420-acre property being purchased in fee title by SJCOG, Inc. The property is located immediately adjacent to the confluence of Sycamore Slough and the Upland Canal, on the east side of the Nuss Preserve. The property consists of five parcels, which is bordered by Cotta Road on the south, a vineyard on the east, and the Upland Canal on the west, and a branch of Sycamore Slough to the north. The property is currently divided into several separate fields (Figure 3). The property has historically been used to grow wheat and corn to feed the nearby dairy farms, but has also been used to grow alfalfa, tomatoes, beans, and other row and field crops. The current crop is winter wheat.

Fields are typically flood irrigated with water pumped from Sycamore Slough and transported through the center of the property through concrete V ditches. The property drains towards the perimeter, where irrigation water is collected and drained to the north and west. At least two of the drainage ditches, in addition to the southern branch of Sycamore Slough and the Upland Canal, are deep enough to hold some water through the summer and thus some wetland vegetation occurs in these water conveyance features (Figure 4).

Riparian habitat including Fremont cottonwood (*Populus fremontii*), Black willows (*Salix nigra*), valley oaks (*Quercus lobata*), and black walnut (*Juglans californica*) occur along Sycamore slough on the west side of the property (Figure 5). Native trees and limited riparian habitat also occur along the western end of the property along Cotta Road and along the northern border of the second field to the north along the western edge of the property (Figure 5).

Properties to the east are comprised of vineyard and orchard habitats, while properties to the south and west are dominated by row and field crop agriculture (Figure 3). The area is rapidly being converted to vineyards and orchards.

The SJMSCP geographic information systems (GIS) database and the California Natural Diversity Database (CNDDB) were searched to identify records of SJMSCP-covered species within approximately 2 miles of the CRPP.

Swainson's hawk (*Buteo swainsonii*, 14 records) are ubiquitous throughout the area, with two nesting records occurring on the property. Two covered plant species, Suisan marsh (*Symphyotrichum lentum*) aster and side-flowering skullcap (*Scutellaria lateriflora*) each have a single record in Sycamore Slough on the preserve. In addition, there are two records of Modesto song sparrow (*Melospiza melodia mailliardi*) on the preserve and several additional records in nearby wetlands and sloughs (Figure 6).

There are twelve records of western pond turtle (*Emys marmorata*, formerly *Clemmys marmorata*), within 2 a two-mile radius of the preserve, mostly concentrated along the Upland Canal south of the preserve. There are also five records of Giant gartersnake (*Thamnophis gigas*) to the south of the preserve along the Upland Canal near the intersection with Highway 12. The two records of riparian brush rabbit (*Sylvilagus bachmani riparius*) north of the preserve are likely associated with a captive breeding population and do not represent a wild population. There are 7 records of wintering greater sandhill crane (*Antigone canadensis tabida*) and 5 records of rose mallow (*Hibiscus lasiocarpus*), mostly associated with Sycamore Slough. There is also a single record of

short-eared owl (*Asio flammeus*), California black rail (*Laterallus jamaicensis coturniculus*) Bank swallow (*Riparia riparia*), merlin (*Falco columbarius*), great egret (*Ardea alba*), white-faced ibis (*Plegadis chihi*), and western snowy plover (*Charadrius alexandrinus nivosus*) within a two-mile radius of the preserve. Two records of longfin smelt (*Spirinchus thaleichthys*) occur in Hog Slough to the north of the preserve (Figure 6).

2.1 Wildlife Habitat Associations Identified in the SJMSCP

The habitats and preserve elements described in the SJMSCP and currently present on the CRPP are listed below. Although the preserve is on the eastern edge of the Delta Index Zone, the list of habitat attributes and species below is a combination of attributes and associated species for Row and Field Crop/Riparian Preserves from both the Delta and Central Index Zones.

- Row and field crop.
- In proximity to riparian corridors with tall nest trees.
- Presence of elderberry bushes with stems 1" or greater in diameter.
- Presence of rodents.
- Presence of pigeons or mice.
- Presence of short grasses, sometimes almost barren ground:
- Presence of small reptiles and/or amphibians in shallow waters.
- Presence of tall perching sites (i.e., vegetative perches higher than surrounding vegetation which permit the species to survey the surrounding area) normally with adjacent agricultural fields or grasslands.
- Presence of willow thickets at the edge of permanent water.
- Presence of snags or trees with a moderate canopy, preferably near riparian areas.
- Presence of stands of dense, tall trees along riparian corridors for roosts or rookeries.
- Presence of slow moving waters within natural and agricultural waterways.

These habitats and preserve elements, according to the SJMSCP, provide foraging habitat for the SJMSCP-covered species listed below.

- Swainson's hawk
- Cooper's hawk (*Accipiter cooperii*)
- Northern harrier (*Circus cyaneus*)
- White-tailed kite (*Elanus leucurus*)
- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)
- Merlin
- Long billed curlew (*Numenius americanus*)

- California horned lark (*Eremophila alpestris actia*)
- Great egret
- Great blue heron (*Ardea herodias*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Yellow warbler (*Setophaga petechia*)
- Desert red bat (*Lasiurus blossevillii*)
- Black-crowned night heron (*Nycticorax nycticorax*)
- Slough thistle (*Cirsium crassicaule*)

In addition to the species listed above, the CRPP also provides habitat capable of supporting giant gartersnake, Suisan marsh aster, side-flowering skullcap, Modesto song sparrow, and foraging habitat for greater sandhill crane.

The agricultural habitats on the preserve also benefit several other common bird species, including killdeer (*Charadrius vociferus*), House finch (*Haemorhous mexicanus*), and California scrub jay (*Aphelocoma californica*), as well as habitat for jackrabbits (*Lepus californicus*), raccoons (*Procyon lotor*), opossums (*Didelphis virginiana*), and gopher snakes (*Pituophis catenifer*).

2.2 Goal and Objectives of the Management Plan

The CRPP will be managed as a Row and Field Crop/Riparian Preserve as described in Section 5.4.4.4 of the SJMSCP. The goal of this preserve type is to maintain and enhance the *habitat values* extant on the site for the benefit of Swainson's hawk and other species covered by the SJMSCP that depend to varying degrees upon habitat values provided by agricultural habitats and associated ditch and riparian habitats. **Habitat Values** are defined herein as the resources on the landscape that provide benefits for covered species, such as abundant and accessible prey or forage, cover, perch sites, nest sites, water, or other resources necessary for survival and reproduction. Habitat values decrease with increasing disturbance, pesticide and herbicide use, and increasing habitat uniformity. Because the CRPP is devoted to agricultural production, the primary goal of the preserve is to provide foraging habitat for SJMSCP-covered species.

Chapter 3

Land Management Activities

This chapter discusses the land management activities that will be implemented under the conservation easement. The desired agricultural practices as well as permitted and prohibited land uses are discussed.

The CRPP will be managed according to the guidelines for Central Zone Row and Field Crop/Riparian Preserves outlined in the SJMSCP. These guidelines state that the key management practice for the agricultural use of row and field crops is to grow only those crops having a canopy structure and other attributes that do not mechanically prevent foraging by raptors or other species covered under the SJMSCP.

3.1 Agricultural Practices

Land management practices on the CRPP have historically provided benefits for Swainson's hawk and other SJMSCP-covered species. The property is currently being used to grow wheat. Other crops grown include various row and field crops. Vineyards, orchards, blueberries, and other permanent or semi-permanent crops are prohibited without permission from the SJCOG, Inc., Habitat Technical Advisory Committee (HTAC).

3.2 Prohibited Uses and Activities

This section identifies prohibited uses of the preserve under the CRPP Conservation Easement. *Landowner* currently refers to SJCOG, Inc. *SJCOG, Inc.*, refers to all agencies, organizations, or individuals affiliated with or that represent the SJCOG, Inc., during implementation of actions under the preserve management plan.

3.2.1 Access and Trespass/Illegal Uses/Signage

No access to the general public will be permitted. The SJMSCP requires that signage be installed at all preserves under conservation easement. At the landowner's discretion, the signage can identify the property as being part of the San Joaquin County Open Space system, or *No Trespassing* signs can be installed. Signage should be installed on the CRPP within 120 days following approval of the conservation easement. The signs should be installed along public roadways and rights-of-way and should clearly state that public access is prohibited. The signs will be provided by the SJCOG, Inc., and installed and maintained by the landowner.

3.2.2 Agricultural Conversion

The conversion of the preserve from production of row and field crops (e.g., tomatoes, corn, beans, cucumbers, or other vegetables; wheat, oats, or other grains; alfalfa or other hay crops) or irrigated pasture to agricultural uses that are not compatible with providing foraging habitat for Swainson's

hawk and other covered species (e.g., conversion to orchards, vineyards, blueberries, or other permanent or semi-permanent crop types) is prohibited without prior approval by the HTAC.

3.2.3 Alteration of Watercourses

The alteration or manipulation of any natural watercourse, wetland, or body of water and activities or uses that are detrimental to water quality, including, but not limited to, degradation, pollution, or fill, are prohibited. This prohibition does not include irrigation of crops, drainage of agricultural fields, routine maintenance of ditches, or installation of preserve enhancements approved by the HTAC.

3.2.4 Chemicals

Except for those pesticides, herbicides, fungicides, or fertilizers used in ongoing row and field crop production in strict compliance with application and labeling instructions, no chemicals will be used on the preserve unless they are used for the specific purpose of controlling exotic weed or pest species that may threaten habitat functions and values. All chemicals will be used, stored, and disposed of in strict compliance with labeling instructions and applicable laws.

3.2.5 Dumping

The dumping, storage, or other disposal of refuse, trash, sewer sludge, and toxic or hazardous materials or chemicals is not permitted on the preserve. This prohibition includes the storage or disassembly of inoperable automobiles, trucks, farm equipment, or other machinery for the purpose of sale or storage.

3.2.6 Hunting and Fishing

Commercial fishing, hunting and trapping are prohibited. No recreational hunting or fishing that could result in take under the federal or state endangered species acts is permitted.

3.2.7 Vegetation Removal or Destruction

The removal or destruction of any natural vegetation (such as riparian habitats or remnant, native oak trees) or vegetation installed as part of a preserve enhancement project is prohibited.

3.2.8 Natural Resource Development

The filling, dumping, excavating, draining, dredging, mining, drilling, removing, exploring, or extracting of or for minerals, soils, sands, gravels, rocks, or other material on or below the surface of the preserve is prohibited, unless otherwise approved by the HTAC.

3.2.9 Pest Management

Pest management is an ongoing activity associated with agricultural production. However, chemical rodent control should be minimized to the extent possible to maximize habitat values for covered species. The implementation of pest management is restricted in accordance with the parameters

listed below to ensure that agricultural activities are consistent with the goals and objectives of the SJMSCP.

- All vertebrate pest control measures will be conducted in accordance with rodenticide labeling instructions, in accordance with Endangered Species Act Bulletins (available from local Agricultural Commissioner), and in accordance with Agricultural Commissioners (regulation and procedures).
- Anti-coagulant pesticides are prohibited.
- Application of rodenticides is restricted to bait feeders and should not be used unless absolutely necessary. Rodenticide baiting in burrows and rodenticide broadcast baiting are prohibited, with the following exceptions:

The use of strychnine or other non-anticoagulant rodenticides (such as ZP Rodent Oat Bait or AG Oat Grain Bait) dispersed underground (using a gopher-baiting machine for example) for pocket gopher abatement is allowed. The intention is to ensure that dead pocket gophers remain underground to eliminate the possibility of secondary poisoning of covered species. While the aforementioned rodenticide labels list other uses for the product, such as vole control in alfalfa fields, their use for control of species other than pocket gophers in a manner other than specified above is prohibited because their above ground use would pose a danger to covered species.

If vertebrate pest control procedures are not effective and additional control is necessary, adaptive management procedures will be followed. The landowner will consult with the HTAC in a timely fashion and in accordance with the SJMSCP.

3.2.10 Recreational Activities

No revenue-generating recreational activities are permitted. Private recreational activities that degrade the habitat values of the property are prohibited.

3.2.11 Roads

The construction of new roads is prohibited.

3.2.12 Structures

The construction or placement of the structures listed below is prohibited on the preserve.

- New residential or other buildings.
- Camping accommodations.
- Mobile homes, house trailers, permanent tent facilities, Quonset huts or similar structures.
- Underground tanks.
- Billboards, signs, or other advertising.
- Streetlights.
- New utility structures or power lines except those required to power new pumps on the property for agricultural purposes.

- New sewer systems.

3.2.13 Vehicle Use

The use of motorized vehicles off designated roadways, except for agricultural purposes, is prohibited.

3.3 Permitted Uses and Activities

This section identifies permitted uses of the preserve under the CRPP Conservation Easement. Although some activities may be permitted under this PMP, all activities are still subordinate and subject to all applicable Federal, State, and local laws and regulations. The primary permitted use of the property is the continuation of row and field crop agriculture.

3.3.1 Hunting and Fishing

Noncommercial fishing, hunting and trapping of wildlife is permitted so long as it is conducted in compliance with applicable laws and regulations and in a manner that does not compromise the habitat values or damage the ecology of the biological resources on the preserve or in a way that could result in take of a federal or state listed or SJMSCP-covered species.

3.3.2 Roads

Resurfacing of existing roads with onsite materials and clean gravel is permitted as long as material is kept within the immediate roadway.

3.4 Affirmative Obligations

This section identifies the affirmative obligations of the landowner under the CRPP Conservation Easement. Affirmative obligations include both activities and permissions. All activities and permissions are subordinate and subject to all applicable Federal, State, and local laws and regulations.

3.4.1 Emergency Vehicle Access

The landowner must allow emergency vehicles to have direct access to the preserve from Cotta Road, when necessary (Figure 3). The CRPP is currently protected by gates and/or cables but is not actively patrolled.

3.4.2 Maintenance and Repair

SJCOG, Inc., is not responsible for general maintenance, repair, and replacement of existing facilities such as roads, fences, agricultural ditches, and irrigation supply lines and pumps. The landowner or lessee retains responsibility for these items and other general maintenance.

3.4.3 Monitoring and Reporting

SJCOG, Inc., is required to track crops grown on the preserve, ensure that the terms of the conservation easement are adhered to, and to conduct monitoring to ensure that acquisition and management of the easement are facilitating the achievement of the SJMSCP goals and objectives. Therefore, the landowner is required to allow reasonable access to the preserve by SJCOG, Inc. and its agents, including the Wildlife Agencies (US Fish and Wildlife Service, California Department of Fish and Wildlife, or their agents) for purposes of ensuring compliance with the terms of the conservation easement and for purposes of monitoring use of the preserve by covered species.

3.4.4 Preserve Enhancements

Several preserve enhancements for the CRPP are being considered. The northwestern portion of the property is the lowest and most difficult to farm due to narrow spaces between the Upland Canal and the southern branch of Sycamore Slough (Figure 3). This area will be planted with riparian habitat with an emphasis on elderberry shrubs as mitigation for Valley elderberry longhorn beetle. In addition, some of the drainage ditches under the control of the landowner may be cleared and planted to enhance habitat values for giant gartersnake. Finally, the walnut trees along the southern branch of Sycamore slough may be removed and a berm constructed to provide potential nesting habitat for burrowing owls.

Management practices may also be incorporated into this PMP at a future date to allow for the planting of crops that may be used for nesting by tricolored blackbirds.

Once preserve enhancements have become successfully established, the landowner is responsible for routine maintenance. Routine maintenance includes watering and weeding where necessary, and protecting enhancements from vehicles, agricultural equipment, and domesticated grazing animals. In cases where additional, non-routine maintenance is required (e.g. plantings are invaded by a new noxious weed that requires excessive control efforts, trees are subjected to a new pathogen, natural succession and senescence of plants), SJCOG, Inc., will assist the landowner in implementing management actions to restore the natural functioning of the preserve enhancements.

3.5 Implementation and Management Schedule

The landowner will begin implementing and managing the preserve in accordance with this PMP immediately upon formal approval and acceptance of the conservation easement by the landowners, SJCOG, Inc., and the HTAC. The landowners and SJCOG, Inc., intend that the property be preserved and maintained in perpetuity by permitting only those agricultural practices that provide foraging habitat for Swainson's hawk and other SJMSCP-covered species that forage in agricultural habitats. The current and proposed agricultural practices are beneficial to these species.

Chapter 4

Monitoring and Adaptive Management

This chapter describes the biological monitoring plan and reporting requirements for land management activities on the CRPP. This chapter also summarizes remedial measures that may be implemented should the property not provide the desired benefits for Swainson's hawk and other SJMSCP-covered species. The primary objective of monitoring is to ensure that the goals and objectives of the SJMSCP and this PMP are being met.

A preserve monitoring strategy for the entire SJMSCP preserve system is currently being completed. The monitoring plan described in this chapter is considered provisional until the system-wide monitoring plan is completed and approved.

Three general types of monitoring are conducted on a regular basis to ensure that the goals and objective of the SJMSCP are being met; *compliance monitoring*, *effectiveness monitoring* (referred to as *biological monitoring* in the SJMSCP), and *preserve enhancement monitoring*.

4.1 Compliance Monitoring

Compliance monitoring is monitoring that demonstrates compliance with the terms and conditions of the conservation easement, the SJMSCP and its permits. Compliance monitoring will be achieved through an annual site visit(s) to the preserve and annual discussion with the landowner(s)/lessees to document changes in agricultural practices or other factors such as water deliveries, drought conditions, market conditions, etc. that could affect the habitat values of the preserve. A set of photo stations will be established and photographs from each station will be taken annually during the site visit(s). Because breeding populations of Swainson's hawk and other covered species that depend upon agricultural habitats during a significant portion of their life cycle are the primary targets of this PMP, the site visit will typically be conducted during spring or summer, when these species can be found in the region.

Four variables will be reviewed during each site visit: the crop types that are in production; the areal extent of each crop type, if applicable; the status of any preserve enhancements; and any changes in land use or status of the preserve that could substantively influence the habitat values of the preserve.

Noncompliance with the conservation easement will be addressed in accordance with the provisions of the conservation easement.

4.2 Effectiveness Monitoring

Effectiveness monitoring (referred to as *biological monitoring* in the SJMSCP) is comprised of several types of monitoring. The general purpose of effectiveness monitoring as described in the SJMSCP is to track habitat conditions and the status of covered species on and around preserve lands and to determine if management actions maintain and improve habitat conditions for covered species.

Baseline habitat conditions are established at the time of preserve acquisition and are described in this PMP. Because neighboring land uses may change over time, potentially reducing the suitability of habitats on the preserve, habitat/crop cover types within a 2-mile radius of the preserve will also be documented.

Baseline surveys to determine presence of SJMSCP covered species will be conducted within 2 years of acquisition. The survey will consist primarily of a complete search of all potential Swainson's hawk nesting substrates within a 2-mile radius of the preserve to the extent possible given potential access constraints from surrounding landowners. Baseline surveys may also include focused surveys for burrowing owls, giant gartersnakes, loggerhead shrikes, tricolored blackbirds, SJMSCP-covered plant species, or other species addressed under the SJMSCP. All wildlife species detected, including SJMSCP-covered species, will be recorded.

The baseline habitat and focused species surveys will be updated once every 3 years by mapping changes in habitats/crop types found within a 2-mile radius of the preserve and repeating the focused nesting Swainson's hawk survey within a 2-mile radius of the preserve. Mapped data will be recorded in the GIS database. The results of the focused survey and assessment of adjacent land uses will be provided in the SJMSCP program-level annual report.

The information will be used for comparison with results from the original baseline survey to track changes over time and to ensure that the goals and objectives of the preserve management plan are being met.

4.3 Monitoring Preserve Enhancements

Monitoring preserve enhancements is required to ensure that they become well established and to determine if remedial actions need to be taken to achieve the goals of the enhancement. Monitoring is conducted regularly after planting, typically for a period of 3 years, or until it is determined the preserve enhancement plantings are established. After the establishment period, preserve enhancement monitoring is conducted in conjunction with the compliance monitoring and includes a cursory visual inspection of the enhancement plantings to ensure that they are healthy and providing the benefits they were designed to achieve.

4.4 Success Criteria

Two criteria were identified to determine the success of land use centered on cropping patterns. Preserve management will be considered successful if the entire 420 acres of designated agricultural lands are maintained in suitable row and field crops (allowing for fallowing as a part of normal crop rotations and excepting any preserve enhancements that may be installed) each year, and all terms and conditions of the conservation easement are adhered to.

Separate success criteria have been established for the establishment of preserve enhancements. Preserve enhancements will be considered successfully established if great than 85% of the installed plants have survived and demonstrate adequate growth and vigor after a period of 3 years.

4.5 Adaptive Management

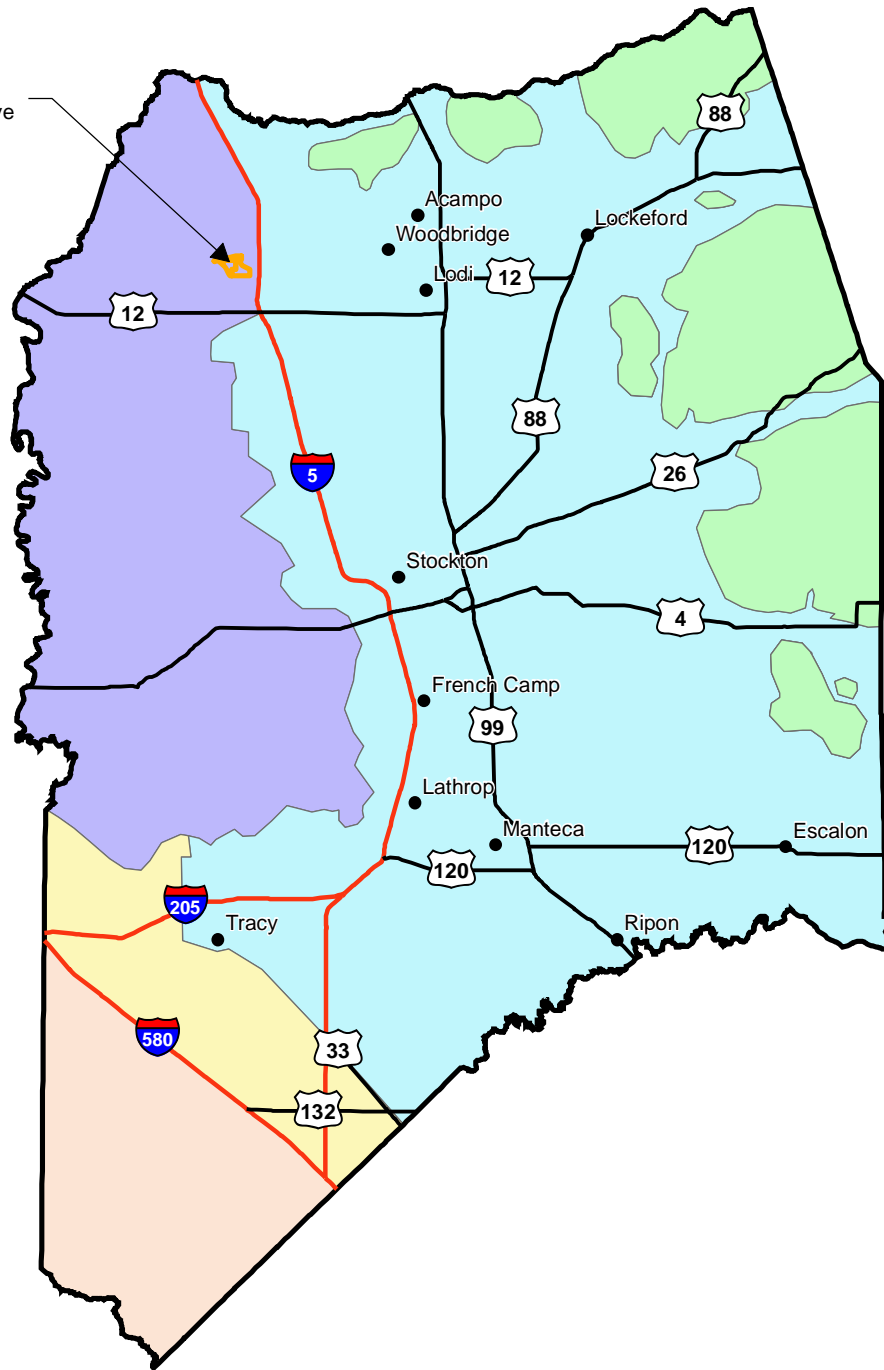
This chapter summarizes the adaptive management provisions of the SJMSCP as they pertain to the CRPP. Adaptive management is a systematic process for continually improving management policies and practices by learning from the outcomes of operational programs. The principle of adaptive management recognizes that the resources being managed are dynamic systems and that the state of knowledge regarding natural resource management is constantly improving. Adaptive management, by definition, does not include predetermined actions, but rather identifies new responses based on the outcome of management activities.

In the context of preserve management, monitoring activities are undertaken to assess the progress of management activities toward achieving the stated management goals. The information collected can then be used to improve management activities, if change is warranted. However, there will be no alteration of management activities that adversely affect permitted agricultural uses of the land without the agreement of the landowner.

Results of monitoring will be used to determine the effectiveness of the measures outlined in the SJMSCP and this PMP in providing habitat for Swainson's hawk and other SJMSCP-covered species. If substantial changes in populations of covered species occur, or evidence suggests the operating conservation program outlined in the SJMSCP is not meeting the goals and objectives outlined in the SJMSCP, then adaptive management procedures may be warranted. Such measures would include a review of the terms of the conservation easements and a review of the cropping patterns, crop types, monitoring requirements, and other management or monitoring activities on SJMSCP preserves.

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Cotta Road
Property Preserve



Legend

SJMSCP Index Zone

- Central Zone
- Central/Southwest Transition Zone
- Primary Zone of the Delta
- Southwest Zone
- Vernal Pool Zone

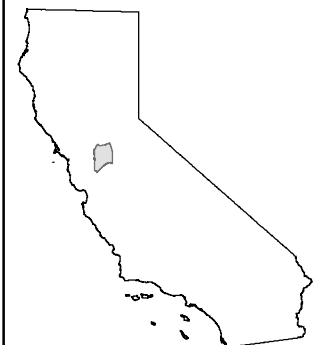


Figure 1
Cotta Road Property Preserve
San Joaquin County

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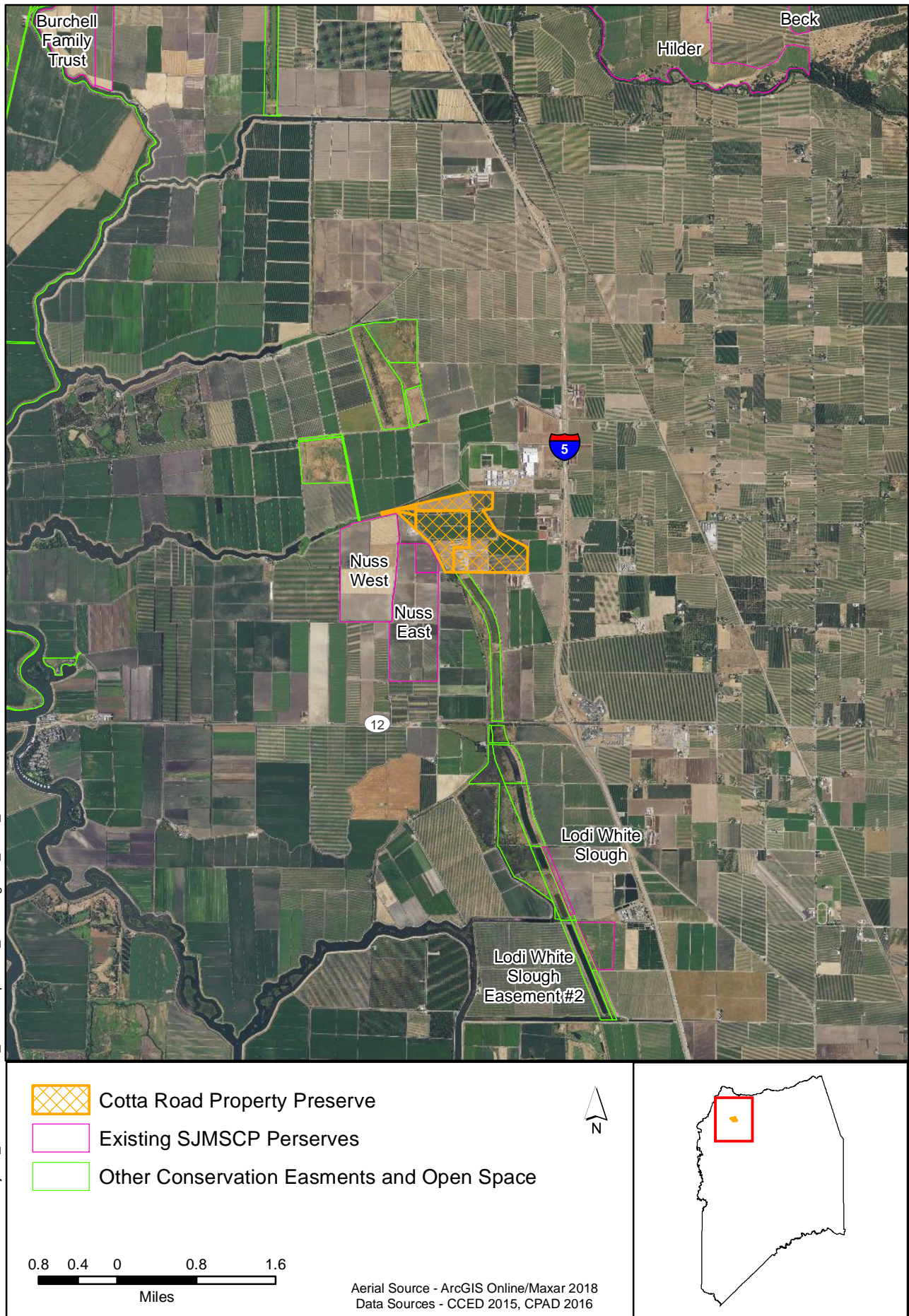


Figure 2
Cotta Road Property Preserve and
Other Conservation Easements in the Vicinity

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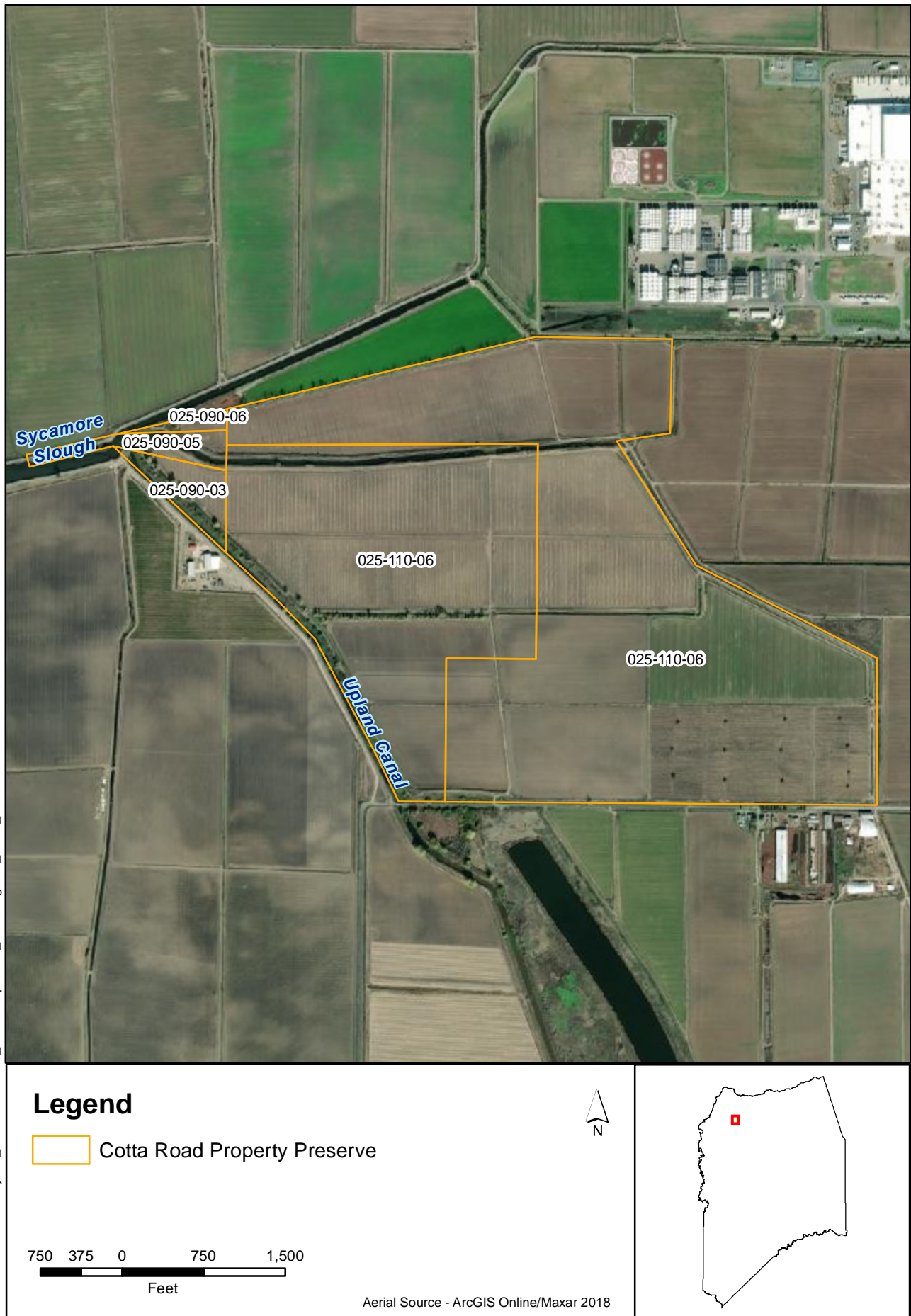




Photo 1: Looking West Down the South Branch of Sycamore Slough.



Photo 2: Wetland Habitat in the Drainage Ditch on the South Side of the Property.

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Photo 1: Riparian Habitats along the Upland Canal Looking North from the Southwest end of the Preserve.



Photo 2: Riparian Habitat in the Upland Canal from the North Side Looking South.

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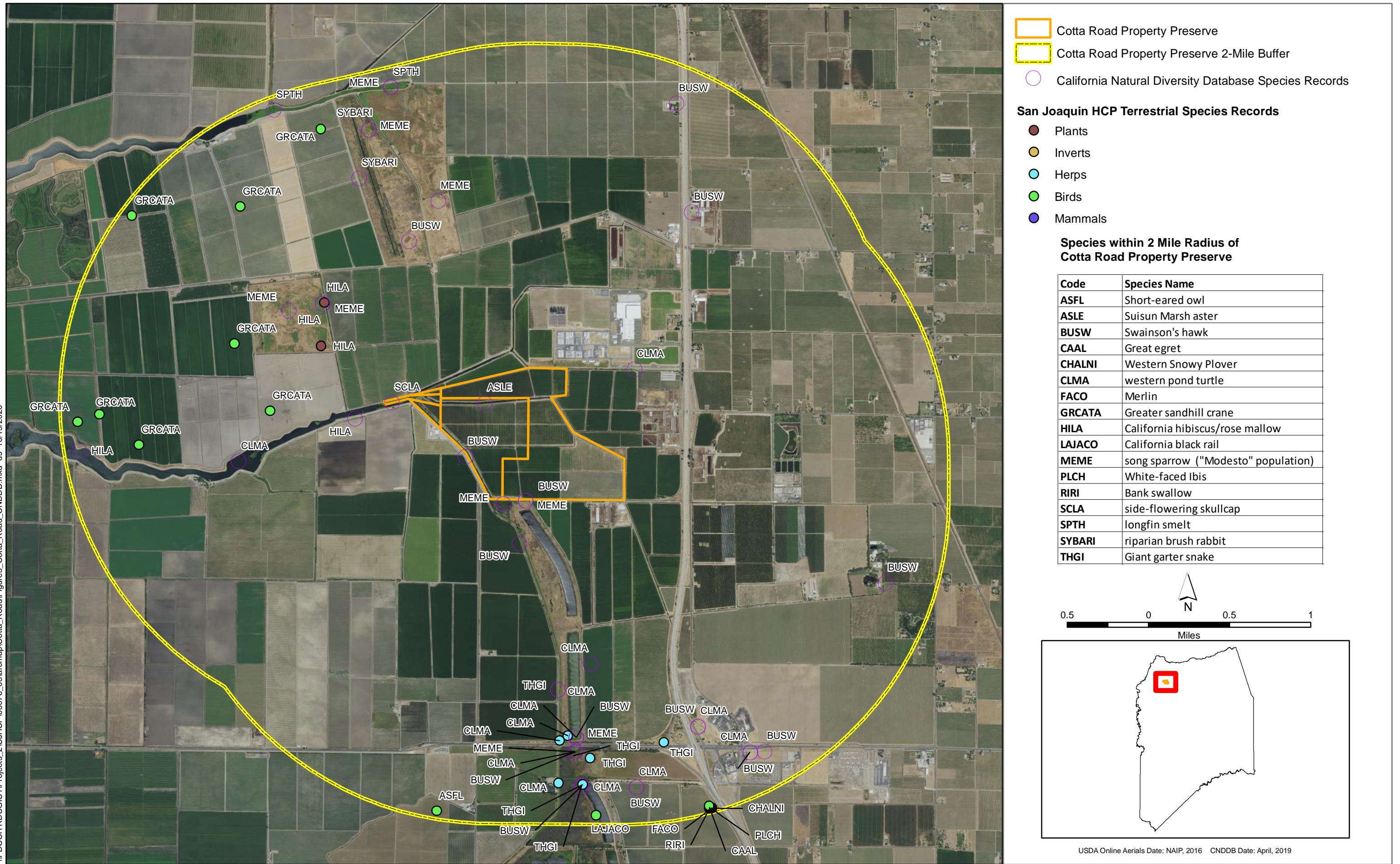


Figure 6
Documented Occurrences of SJMSCP-Covered Species within 2 Miles of Cotta Road Property Preserve