# **STAFF REPORT**

#### **SUBJECT:**

Razzano Preserve Purchase and Preserve Management Plan

#### **RECOMMENDED ACTION:**

Motion to 1) Approve the Conservation Easement Purchase and 2) Approve the Preserve Management Plan (PMP) for the Preserve Site

#### **DISCUSSION:**

#### SUMMARY:

The Razzano property under consideration totals of 138 +/- acres. The land owner and SJCOG, Inc. contemplate an easement purchase under the habitat plan of approximately 130+/- acres on the property. The property is located on the east side of Kennefick Road bordered by Dry Creek to the north and Liberty Road to the south in the Central and Vernal Pool Zones. The potential preserve is near an existing SJCOG, Inc. preserve in the Central Zone area, also shown in the attachment 1 and 2.

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



There have been historical records of California tiger salamander 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 conservation easement purchase, and
- 2) approve the preserve management plan.

#### **FISCAL IMPACT:**

SJCOG, Inc. would purchase an agricultural habitat easement on 130+/- acres under the SJMSCP.

- Easement = **\$975,000** (not to exceed \$7,500 per acre) plus closing costs
- Endowment = **\$563,927** (130+/- acres x \$4,337.90 per acre for 2018 endowment amount)

#### **BACKGROUND:**



The Razzano property is on the east side of Kennefick Road bordered by Dry Creek to the north and Liberty Road to the south in the Central Zone and the Vernal Pool Zone. The property consists of active cattle grazing operations which serves as foraging habitat for several SJMSCP covered species. The conservation easement, with some enhancements, covers existing pasture lands to mitigate for prior development impacts in the Central Zone under the SJMSCP.

The draft PMP (attachment 3), prepared by ICF, reflects the existing Preserve Management Plans

for grazing land preserves in the Central Zone for economy of scale on long term monitoring activities. There are no extensive enhancements planned to the landscape. However, any additional future enhancements not displayed in Table 1 would be brought back as a supplemental PMP in cooperation with the land owner. The land owners display very good stewardship practices and there are very few invasive species within the fields on premises.



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# Table 1 – Enhancements for Row and Field Crop/Riparian Preserves Enhancement Potential Under SIMSCP

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

#### **COMMITTEE ACTIONS:**

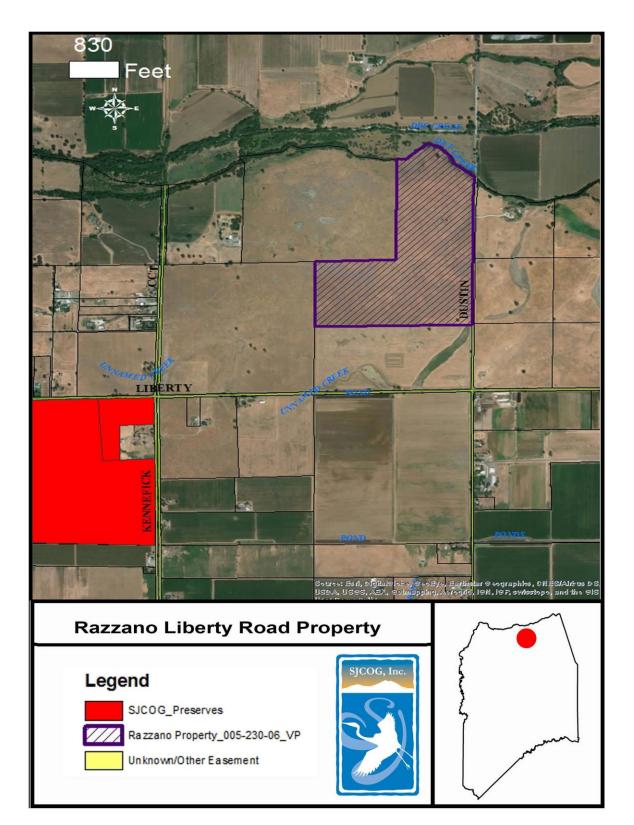
- Habitat Technical Advisory Committee: Recommended Approval
- SJCOG, Inc. Board Action Required

#### **ATTACHMENTS:**

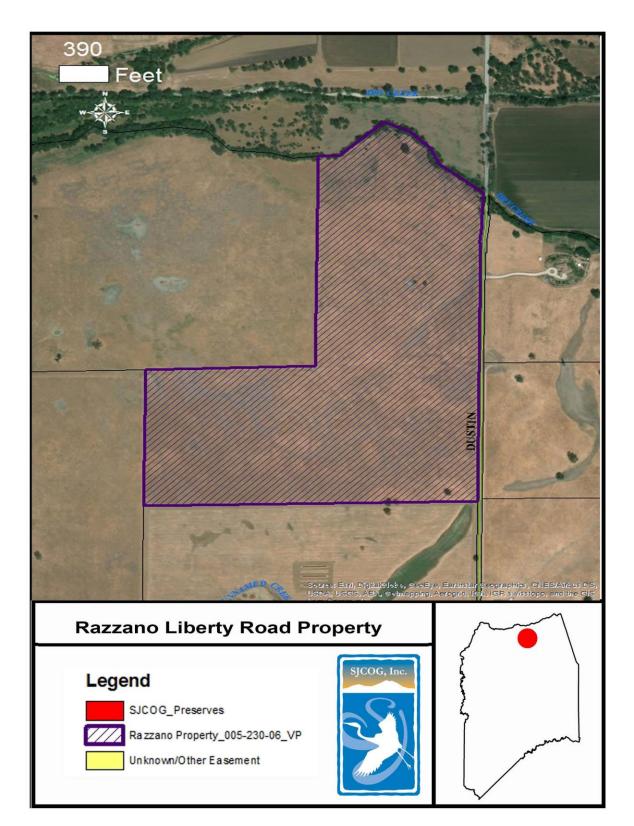
- 1. Overview Preserve Location Map
- 2. Preserve Location Map
- 3. Preserve Management Plan

Prepared by: Steven Mayo, Program Manager

#### **ATTACHMENT 1**



#### **ATTACHMENT 2**



**ATTACHMENT 3** 

# PRESERVE MANAGEMENT PLAN FOR THE RAZZANO LIBERTY ROAD PROPERTY PRESERVE

#### **PREPARED FOR:**

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

**PREPARED BY:** 

ICF International 630 K Street, Suite 400 Sacramento, CA 95814 Contact: Doug Leslie 916.737.3000

April 30, 2018



ICF International. 2018. *Preserve Management Plan for the Razzano Liberty Road Property Preserve*. April. (ICF 00019.15) Sacramento, CA. Prepared for SJCOG, Inc., Stockton, CA.

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Table 1	Razzano Liberty Road Property Preserve Parcel Information	

#### Figures appear at end of document

- Figure 1 Razzano Liberty Road Property Preserve San Joaquin County
- Figure 2 Razzano Liberty Road Property Preserve and Other Conservation Easements in the Vicinity
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- Figure 4 Habitats Present on the Razzano Liberty Road Property Preserve
- Figure 5 Documented Occurrences of SJMSCP-Covered Species within 2 Miles of Razzano Liberty Road Property Preserve

# **Acronyms and Abbreviations**

amsl	above mean sea level
CNDDB	California Natural Diversity Database
GIS	geographic information systems
HTAC	Habitat Technical Advisory Committee
RLRPP	Razzano Liberty Road Property Preserve
SJCOG	SJCOG, Inc.
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
USGS	U.S. Geological Survey

SJCOG, Inc., is currently implementing the *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan* (SJMSCP)<sup>1</sup> (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 Razzano Liberty Road Property Preserve (RLRPP), owned by Robert and Rose Marie Razzano, on which a conservation easement is being placed. There are approximately 138 acres in the parcels addressed in this PMP, approximately 130 of which SJCOG Inc. intends to purchase a conservation easement. The preserve occurs just northeast of the Erman Liberty Kennefick Roads Property Preserve and adjacent to the proposed Brooks Liberty Road Property Preserve in San Joaquin County near the border with Sacramento County on the edge of the Central and Vernal Pool zones (Figure 1). The RLRPP 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 conservation practices and management policies by learning from the outcomes of operational programs.

# **1.2 Preserve Location**

The RLRPP is located on Dustin Road approximately 2.9 miles east of State Route 99 in northern San Joaquin County, CA (Figure 1). Information pertaining to the property is provided in Table 1.

<sup>&</sup>lt;sup>1</sup> San Joaquin County Council of Governments. 2001. *San Joaquin County Multi-Species Habitat Conservation & Open Space Plan*. Stockton, CA. Available: <a href="http://www.sjcog.org/sections/habitat/sjmscp">http://www.sjcog.org/sections/habitat/sjmscp</a>. Accessed August 28, 2009.

Assessor's Parcel Numbers	005-230-06
Acreage	130 acres
SJMSCP Index Zone	Central
USGS 7.5-minute quadrangle	Lockeford
Township	5N
Range	7E
Section	32

#### Table 1. Razzano Liberty Road Property Preserve Information

SJMSCP = San Joaquin County Multi-Species Habitat Conservation and Open Space Plan; USGS = U.S. Geological Survey

The RLRPP is in close proximity to the Erman Liberty Kennefick Roads Property Preserve and the proposed Brooks Liberty Road Property Preserve in northern San Joaquin County near the Dry Creek (Figure 2).

## **1.3 Land Ownership and Management**

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

#### Landowner

Robert and Rose Marie Razzano Contact: Mike Razzano 612344 Plum Lane Wilton, CA 95693 916.687.6427

#### **Conservation easement holder**

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

#### Land manager

ICF International 630 K Street, Suite 400 Sacramento, CA 95814 Contact: Doug Leslie Phone: 916.737.3000

## Chapter 2 Baseline Preserve Characteristics, Goals and Objectives

As noted above, the RLRPP is an approximately 130-acre portion of the property owned by Robert and Rose Marie Razzano. The easement consists of a single parcel bordered by Dry Creek to the north, Dustin Road to the east, and the Brooks Liberty Road Property Preserve on the West. The entire property is currently in dry pasture used to graze cattle (Figure 3).

The northern border of the property is Dry Creek, an intermittent stream comprised primarily of valley oaks (*Quercus lobate*) with occasional cottonwoods (*Populus fremontii*), Box elder (*Acer negundo*), black walnut (*Juglans californica*), and a relatively open understory (Figure 4). Most of the creek is fenced off from cattle. The remainder of the property is vernal grasslands with vernal swales and pools. There are a few large, remnant valley oaks scattered throughout the property (Figure 4). At the time of the site visit in April 2018, there were no ground squirrels detected on the property, but several of the vernal swales and pools still contained water. The property is used primarily to graze cattle, typically from November through May, although small numbers of cattle are occasionally grazed during the summer months. No part of the property is irrigated, although the landowner indicates that a portion of the property was used to grow alfalfa approximately 50 years ago but has not been tilled or seeded subsequently. There is a single water trough for cattle that is supplied through a groundwater pump. Control of non-native, invasive plants such as Yellow star thistle (*Centaurea solstitialis*) and milk thistle (*Silybum marianum*) through the use of herbicides is required to maintain the pasture and habitat values.

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 RLRPP. Over 20 records of nesting Swainson's hawk (*Buteo swainsonii*) occur within 2 miles of the RLRPP, including one record on the RLRPP. There are two records of California tiger salamander (*Ambystoma californiense*), several records of vernal pool fairy shrimp (*Branchinecta lynchi*), one record of vernal pool tadpole shrimp (*Lepidurus packardi*), and several records of tricolored blackbird (*Agelaius tricolor*) near the property (Figure 5). A pair of Swainson's hawks was documented nesting in a Cottonwood tree in Dry creek at the northern end of the property during the site visit in April 2018.

# 2.1 Wildlife Habitat Associations Identified in the SJMSCP

The habitats and preserve elements described in the SJMSCP and currently present on the RLRPP are listed below.

- Row and field crop (pastureland).
- 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 snags or trees with a moderate canopy, preferably near riparian areas.
- Presence of small birds.
- Presence of vernal pools / swales

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

- Swainson's hawk
- Northern harrier (*Circus cyaneus*)
- White-tailed kite (*Elanus leucurus*)
- Merlin (Falco columbarius)
- Long billed curlew (*Numenius americanus*)
- Horned lark (*Eremophila alpestris actia*)
- Great blue heron (Ardea herodias)
- Great egret (Ardea alba)
- Loggerhead shrike (*Lanius ludovicianus*)
- Red bat (*Lasiurus borealis*)
- Cooper's hawk (Accipiter cooperii)
- Sharp-shinned hawk (Accipiter striatus)
- California tiger salamander
- Vernal pool fairy shrimp

The pasturelands on the preserve can also benefit several other common bird species, including resident and wintering raptors, songbirds, and neotropical migrants 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 RLRPP will be managed as a Row and Field Crop 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. In addition, due to the presence of vernal pool/swale habitats, the preserve will be managed to maintain habitat values for California tiger salamander and vernal pool invertebrates. *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 RLRPP is devoted to agricultural production, the primary goal of the preserve is to provide nesting and foraging habitat for SJMSCP-covered species. 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 RLRPP will generally be managed according to the guidelines for Central Zone Row and Field Crop Preserves outlined in the SJMSCP. These guidelines state that the key management practice is to grow only those crops having attributes that do not mechanically prevent foraging by raptors or other species covered under the SJMSCP. However, because of the presence of vernal pool /swale habitats, conversion of the property from pastureland to row and field crops is prohibited with prior permission from the Habitat Technical Advisory Committee (HTAC).

# 3.1 Agricultural Practices

Land management practices on the RLRPP have historically provided benefits for Swainson's hawk and other SJMSCP-covered species. The property is currently being used as dry pasture for cattle grazing. Best management practices will continue to be used to ensure that noxious weeds remain under control and grass height is maintained at appropriate heights and densities to maintain the value of the range for cattle grazing, reduce fire hazards, and maintain habitat values.

Vineyards, orchards, blueberries, and other permanent or semi-permanent crops are prohibited without permission from the SJCOG, Inc., HTAC).

# 3.2 Prohibited Uses and Activities

This section identifies prohibited uses of the preserve under the RLRPP Conservation Easement. *Landowner* refers to Robert and Rose Marie Razzano. *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 RLRPP 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 by the landowner.

## 3.2.2 Agricultural Conversion

The conversion of the preserve from pasture or other hay crops to other agricultural uses 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 stated endangered species acts is permitted.

## 3.2.7 Vegetation Removal or Destruction

The removal of any natural vegetation (such as riparian habitats or mature oak trees, with the exception of trimming such vegetation for access purposes) 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.

Control of California ground squirrels by use of poison's is prohibited.

## 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 RLRPP 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.

### 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 RLRPP 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 Dustin Road, when necessary (Figure 3). The RLRPP 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 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. 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

No preserve enhancements have been proposed for the RLRPP property because extensive riparian, grassland, vernal pool/swale, and Oak woodland already occur on the property.

# 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, the HTAC, and SJCOG, Inc. The landowners and SJCOG, Inc., intend that the property be preserved and maintained in perpetuity by permitting only those agricultural practices that are consistent with maintaining habitat values for nesting raptors and California tiger salamander and vernal pool invertebrates. The current and agricultural practices are beneficial to these species.

This chapter describes the biological monitoring plan and reporting requirements for land management activities on the RLRPP. 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 annual site visit(s) to the preserve and discussions with the landowner(s) to document changes in agricultural practices or other factors such as drought conditions, market conditions, etc. that could affect the conservation and 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.

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 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 will also include focused surveys for California tiger salamander and vernal pool invertebrates, and may include surveys for other covered species such as burrowing owls or loggerhead shrikes. 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 preserve enhancement become well established and to determine if remedial actions need to be taken to achieve the goals of the enhancement. However, preserve enhancements are not currently proposed for this property.

# 4.4 Success Criteria

Two criteria were identified to determine the success of land use and management. Preserve management will be considered successful if the entire 130 acres of designated agricultural lands are maintained in suitable pasture each year, and all terms and conditions of the conservation easement are adhered to.

# 4.5 Adaptive Management

This chapter summarizes the adaptive management provisions of the SJMSCP as they pertain to the RLRPP. 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, monitoring requirements, and other management or monitoring activities on SJMSCP preserves.