## **STAFF REPORT**

#### **SUBJECT:**

Musco Olive Patterson Pass Preserve Dedication and Preserve Management Plan

#### **RECOMMENDED** ACTION:

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

#### **DISCUSSION:**

#### SUMMARY:

The Musco Olive Patterson Pass property under consideration totals 226 +/- acres which contains 25 +/- acres of grassland habitat under consideration for an easement dedication. The location of the property is southwest of the City of Tracy south of Patterson Pass Road adjacent to the Union Pacific rail line close to the county border in the Southwest Zone. The potential preserve is a short distance to the west of existing SJCOG, Inc. preserves and other easements in the Southwest Zone. The potential preserve is near existing SJCOG, Inc. preserves and other easements in the Southwest Zone. The potential preserve is near existing SJCOG, Inc. preserves and other easements in the Southwest Zone.



With the easement dedication, SJCOG, Inc. staff has written this draft PMP to be consistent with the existing grassland preserves in the Southwest Zone for management economies of scale for species under the SJMSCP. The easement will serve as habitat for various species while providing mitigation for the project impacts under the habitat plan at the project site in the Southwest Zone.

There are historical records in the California Natural Diversity Database (CNDDB) of California tiger salamander and other species on/near the property.

#### **RECOMMENDATION:**

A motion to

- 1) approve the conservation easement dedication and
- 2) approve the preserve management plan.

#### FISCAL IMPACT:

SJCOG, Inc. would be accepting approximately 25 +/- acres under the SJMSCP:

- Easement Dedication 25 +/- acres of grassland habitat dedicated by a project for impacts under the plan
- Endowment = **\$36,134.71** (8.15+/- acres impact x \$4,337.90 per acre for 2018 endowment)

#### **BACKGROUND:**



The Musco Olive Expansion Project of 8.15 acres requiring mitigation will be dedicating habitat in lieu of fees for the project impacts at the required 3:1 mitigation ratio for natural lands to equal 25+/- acres of dedication. The easement dedication is located south of Patterson Pass Road southwest of the City of Tracy adjacent to the Union Pacific rail line close to the western county border in the Southwest Zone. The

potential preserve is a short distance to the northwest of existing SJCOG, Inc. preserves and other easements in the Southwest Zone. The conservation easement, with some enhancements, covers existing grassland habitat to mitigate for the development impacts in the Southwest Zone under the SJMSCP.

The draft PMP (attachment 3), prepared by ICF, reflects the existing Preserve Management Plans for southwest grasslands in the Southwest Zone for economy of scale on long term monitoring activities. There are some 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 a few invasive species within the fields on premises to be removed.



#### Table 1 – Enhancements for Southwest Grassland Preserves

Enhancement Potential Under SJMSCP	Y	Ν	N/A
Use of Herbicides, pesticides and/or rodenticide in accordance with Sect. 5.4.5(M) & 5.4.7.1	Χ		
Create, expand or restore riparian area to enhance nesting		Х	
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		Χ	
Install bat boxes			Х
Maintain water quality within creeks and wetlands (e.g. red-legged frog habitat)			Х
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:**

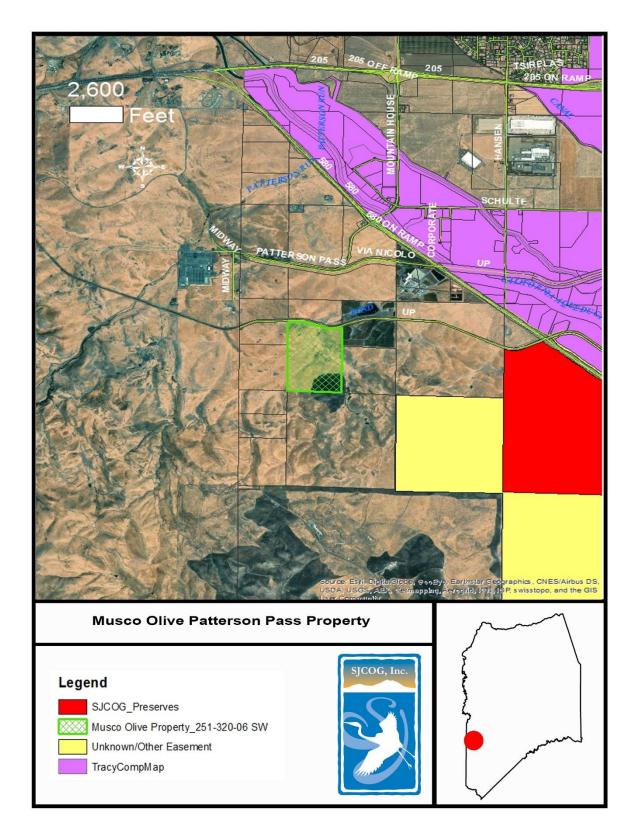
- Habitat Technical Advisory Committee: Recommended Approval
- SJCOG, Inc. Board Action Required

#### **ATTACHMENTS:**

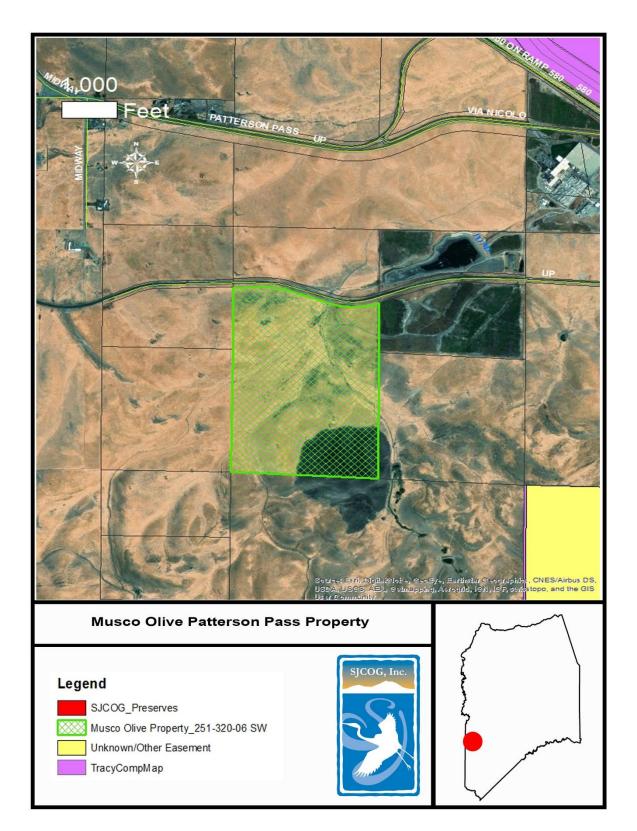
- Overview Preserve Location Map
   Preserve Location Map
   Preserve Management Plan

Prepared by: Steven Mayo, Program Manager

#### **ATTACHMENT 1**



#### **ATTACHMENT 2**



#### **ATTACHMENT 3**

## DRAFT PRESERVE MANAGEMENT PLAN FOR THE MUSCO OLIVE PATTERSON PASS ROAD 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

**November 8, 2018** 



ICF International. 2018. *Draft Preserve Management Plan for the Musco Olive Patterson Pass Road Preserve*. November. (ICF 00019.15) Sacramento, CA. Prepared for SJCOG, Inc., Stockton, CA.

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## **Acronyms and Abbreviations**

amsl	above mean sea level
CNDDB	California Natural Diversity Database
GIS	geographic information systems
HTAC	Habitat Technical Advisory Committee
MOPPRP	Musco Olive Patterson Pass Road 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 Musco Olive Patterson Pass Road Preserve (MOPPRP), owned by Musco Olive, on which a conservation easement is being placed. The single parcel is comprised of approximately 226 acres, 30 of which Musco Olive intends to dedicate a conservation easement on as land in lieu of fees. The preserve occurs on the south side of Patterson Pass road near the eastern border of San Joaquin County in the Southwest Zone of the SJMSCP (Figure 1). The MOPPRP is intended to offset impacts resulting from the conversion of grassland habitats within the Southwest Zone.

## **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 MOPPRP is located on the south side of Patterson Pass Road approximately 7 air miles southwest of the center of the City of Tracy, CA in western 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	251-320-06
Acreage	30 acres
SJMSCP Index Zone	Southwest
USGS 7.5-minute quadrangle	Midway
Township	3S
Range	4E
Section	4

Table 1. Musco Olive Patterson Pass Road Preserve Information

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

The MOPPRP is in close proximity to other conservation easements held by SJCOG, Inc, including the Tracy 50 Business Park Preserve and the Connolly Ranch Preserve (Figure 2).

## **1.3 Land Ownership and Management**

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

#### Landowner

Musco Olive Contact: Kelly Hegman 17950 Via Nicolo Road Tracy, CA 95377 Cell: 209.640.2964 Office: 209.229.7071 Email: kellyh@olives.com

#### **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 MOPPRP is an approximately 226-acre property owned by the Musco Olive. The easement consists of approximately 30 acres on a single parcel comprised entirely of dry pasture (Figure 3). The site was used for cattle grazing until June of 2018, although the fences on the property need repair. There are currently no ground squirrel control efforts being undertaken, and California ground squirrels appear to be plentiful, particularly near the entrance to the property. A burrowing owl was flushed from this are during the site visit in October. Grass height is currently low, with few weed issues apparent (Figure 4). The entire site is below 800 feet amsl in elevation with slopes generally less than 15%. There are two sets of large power transmission lines going through the property, one of which crosses the 30-acre easement from east to west (Figure 4). There are no stock ponds, vernal pools, or other water sources on the easement or the larger property, although there are nearby ponds on adjacent parcels.

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 MOPPRP. There are 28 records of Burrowing owl (*Athene cunicularia*) within 2 miles of the MOPPRP, in addition to 19 records of San Joaquin kit fox (*Vulpes macrotis mutica*), 10 records of California red-legged frog (*Rana draytonii*), 4 records of American badger (*Taxidea taxus*), 3 records of Blaineville's horned lizard (Phrynosoma blainvillii), 3 records of Alameda whipsnake (*Masticophis lateralis euryxanthus*) and 2 records of California tiger salamander (*Ambystoma californiense*). In addition, there are 3 records of California horned lark (*Eremophila alpestris actia*), 2 records of Big tarplant (*Blepharizonia plumosa*) and Ferruginous hawk (*Buteo regalis*), and 1 record each for California glossy snake (*Arizona elegans occidentalis*), Short-eared owl (*Asio flammeus*), California androsace (*Androsace elongata*), Northern harrier (*Circus hudsonius*), California linderiella (*Linderiella occidentalis*), San Joaquin coachwhip (*Coluber flagellum ruddocki*), Shining navarretia (*Navarretia nigelliformis spp. radians*), and Caper-fruited tropidocarpum (*Tropidocarpum capparideum*) (Figure 5).

# 2.1 Wildlife Habitat Associations Identified in the SJMSCP

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

- Valley grasslands (dry pasture).
- North-facing slopes on grasslands at elevations nearing the blue oak belt
- Poorly-drained, fine alkaline soils, sometimes near scrub.
- Presence of ground-nesting bees.
- Presence of ant colonies.
- Presence of loose, sandy, gravelly, or other easily crumbling soils.

- Presence of ground squirrel holes.
- Presence of rodent populations.
- Presence of grasshoppers, cicadas, lizards, other snakes.
- Short grasses, sometimes almost barren ground.

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

- Large-flowered fiddleneck (*Amsinckia grandiflora*)
- Recurved larkspur (*Delphinium recurvatum*)
- Moestan / Molestan blister beetles (*Lytta moesta/L. molesta*)
- Blainville's horned lizard
- Berkeley kangaroo rat (Dipodomys heermanni berkleyensis)
- San Joaquin pocket mouse (*Perognathus inornatus*)
- American badger
- San Joaquin kit fox
- Burrowing owl
- California tiger salamander
- San Joaquin whipsnake
- Golden eagle (*Aquila chrysaetos*)
- Ferruginous hawk
- Northern harrier
- White-tailed kite (*Elanus leucurus*)
- California horned lark
- Mountain plover (*Charadrius montanus*)
- Long-billed curlew (*Numenius americanus*)

The grasslands 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 California king snakes (*Lampropeltis getula*).

#### 2.2 Goal and Objectives of the Management Plan

The MOPPRP will be managed as a Grassland Preserve as described in Section 5.4.4.2(A) of the SJMSCP. The primary goal of this preserve is to maintain and enhance habitat values for the benefit species covered by the SJMSCP that depend to varying degrees upon habitat values provided by grassland and dry pasture 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,

SJCOG, Inc.

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. 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 MOPPRP will generally be managed according to the guidelines for Grassland Preserves as described in Section 5.4.4.2(A) of the SJMSCP. These guidelines express the desire to control noxious weed infestations, prevent soil erosion, maintain water quality, reduce fire hazards, and allow for the establishment and maintenance of populations of California ground squirrels. 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 MOPPRP have historically provided benefits for Burrowing owl and other SJMSCP-covered species. The property has until recently been used as dry pasture for cattle grazing. Best management practices will be used to ensure that noxious weeds remain under control and grass height is maintained at appropriate heights and densities (generally averaging less than 12 inches tall) to maintain the value of the range for grazing by cattle, sheep, goats, or other grazing animals, 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 MOPPRP Conservation Easement. *Landowner* refers to Musco Olive. *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 MOPPRP 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 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.

## 3.2.4 Grazing

Areas of livestock concentration and deposit of waste (e.g., salt licks, cattle/sheep/goat pens, feeding stations) shall be kept at least 45 feet from the banks of the low-flow stream channels. Mowing as a primary means of vegetation control is prohibited.

#### 3.2.5 Chemicals

Except for those pesticides, herbicides, fungicides, or fertilizers used in ongoing grazing practices, and as allowed under the SJMSCP, no chemicals will be used on the MOPPRP unless they are used for the specific purpose of controlling non-native weed species that may threaten natural or created habitats. All chemicals will be used, stored, and disposed of in strict compliance with labeling instructions and applicable laws.

#### 3.2.6 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.

#### 3.2.7 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.

## 3.2.8 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.

## 3.2.9 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.

#### 3.2.10 Pest Management

Rodent and predator control will not be practiced in the MOPPRP without prior written authorization from the HTAC. Furthermore, no disking, tilling, grading of the soil, or other activity that would destroy ground squirrel burrows (other than grading of existing unpaved access roads or repairing of slides affecting access roadways) will be conducted without first obtaining written authorization from the HTAC. Control of California ground squirrels by use of poison's is prohibited. If control of California ground squirrels should become necessary, it will be conducted by shooting with lead-free ammunition.

#### 3.2.11 Recreational Activities

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

#### 3.2.12 Roads

The construction of new roads is prohibited.

#### 3.2.13 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.

#### 3.2.14 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 MOPPRP 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 livestock grazing.

#### 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 MOPPRP 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, when necessary (Figure 3). The MOPPRP is currently protected by locked gates, but is not actively patrolled.

#### 3.4.2 Maintenance and Repair

SJCOG, Inc., in their capacity as holder of the conservation easement, 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 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 are currently being considered for the MOPPRP.

## 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. 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 grassland dependent SJMSCP-covered species.

This chapter describes the biological monitoring plan and reporting requirements for land management activities on the MOPPRP. This chapter also summarizes remedial measures that may be implemented should the property not provide the desired benefits for 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 management 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 populations of grassland dependent covered species 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, landcover 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 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 owl, or camera station surveys for San Joaquin kit fox and other grassland dependent species. All wildlife species detected, including SJMSCP-covered species, will be recorded.

The baseline habitat and focused species surveys will be updated on a regular basis by mapping changes in habitats/crop types found within a 2-mile radius of the preserve and repeating the focused nesting hawk surveys 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

No preserve enhancements are proposed for the MOPPRP. However, monitoring will be a requirement if preserve enhancements are installed in the future.

## 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 30 acres of designated grasslands are maintained in a suitable condition through the implementation of best management practices, 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 MOPPRP. 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 grassland dependent 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.

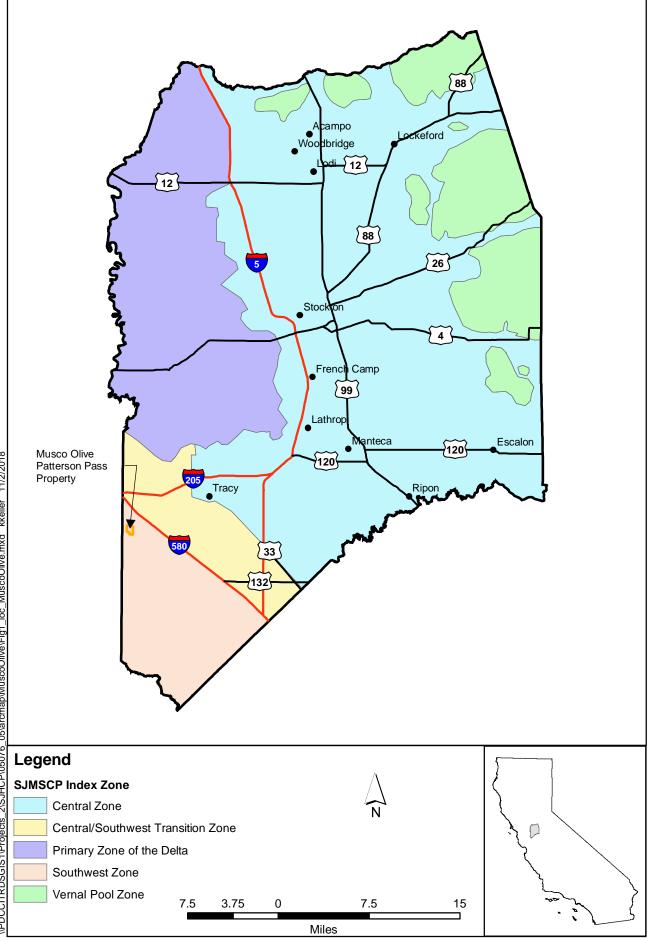
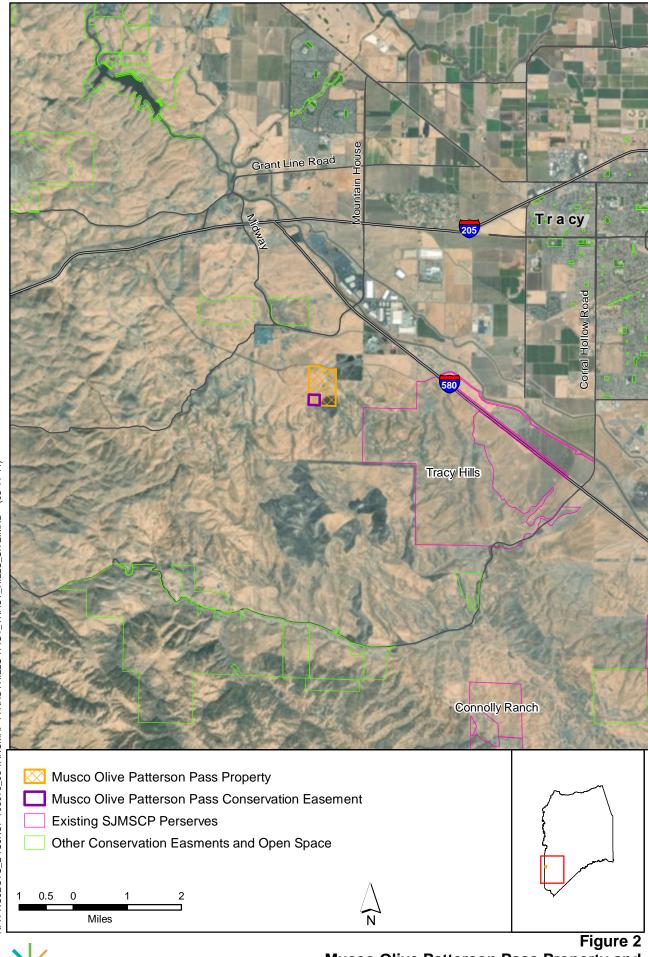




Figure 1 Musco Olive Patterson Pass Property



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Musco Olive Patterson Pass Property and Other Conservation Easements in the Vicinity

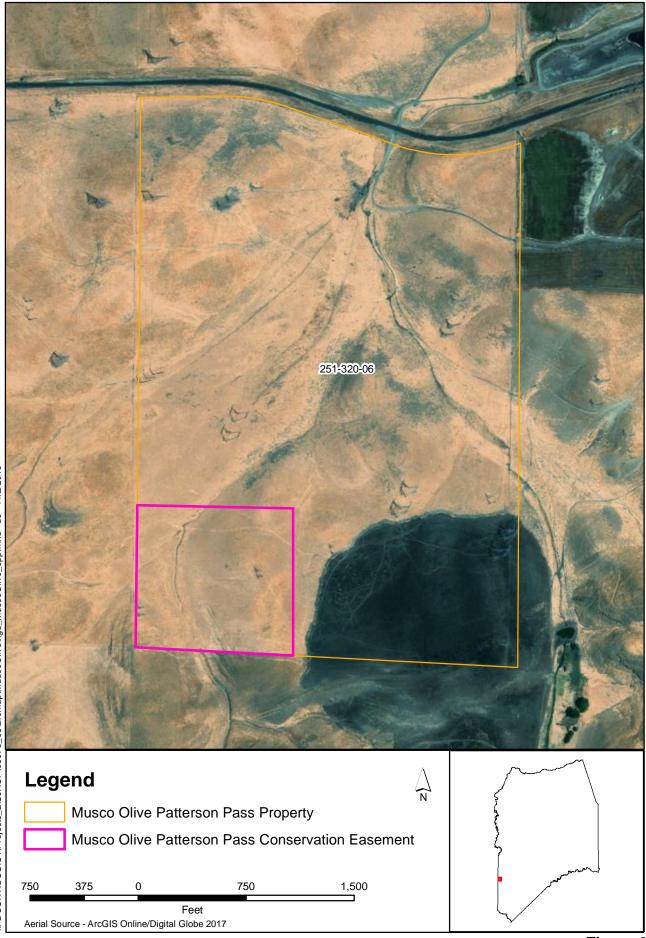


Figure 3 Musco Olive Patterson Pass Property



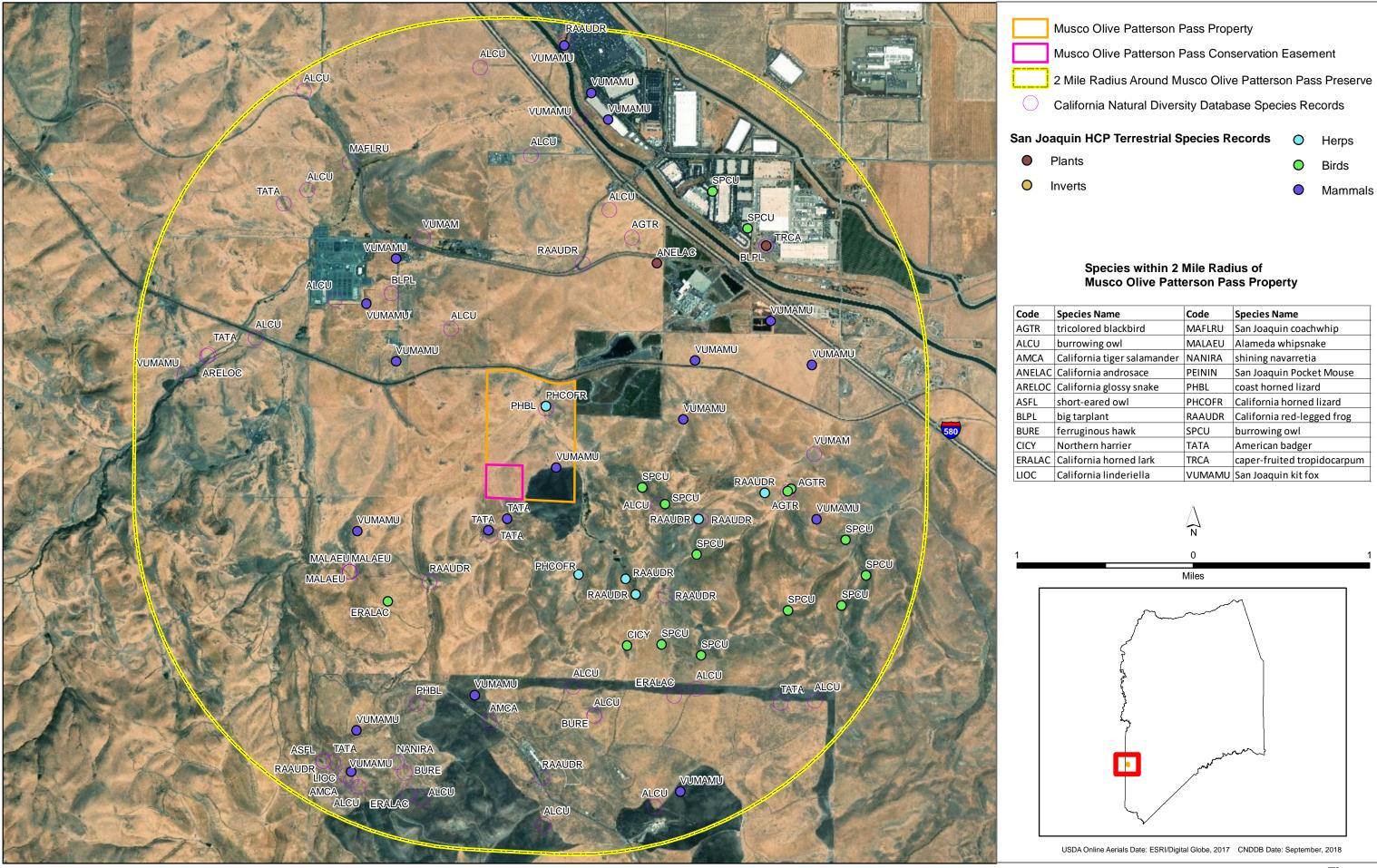
Photo 1. Typical Grassland Haibtats on the Musco Olive Conservation Easement.



Photo 2. Grasslands Under the Transmission Lines on the Musco Olive Conservation Easement.



Figure 4 Habitats Present on the Musco Olive Pattersone Pass Road Preserve



de	Species Name	Code	Species Name
STR	tricolored blackbird	MAFLRU	San Joaquin coachwhip
CU	burrowing owl	MALAEU	Alameda whipsnake
ЛСА	California tiger salamander	NANIRA	shining navarretia
IELAC	California androsace	PEININ	San Joaquin Pocket Mouse
ELOC	California glossy snake	PHBL	coast horned lizard
FL	short-eared owl	PHCOFR	California horned lizard
PL	big tarplant	RAAUDR	California red-legged frog
IRE	ferruginous hawk	SPCU	burrowing owl
CY	Northern harrier	TATA	American badger
ALAC	California horned lark	TRCA	caper-fruited tropidocarpum
C	California linderiella	VUMAMU	San Joaquin kit fox

Figure 6 **Documented Occurrences of SJMSCP-Covered Species** within 2 Miles of Musco Olive Patterson Pass Property