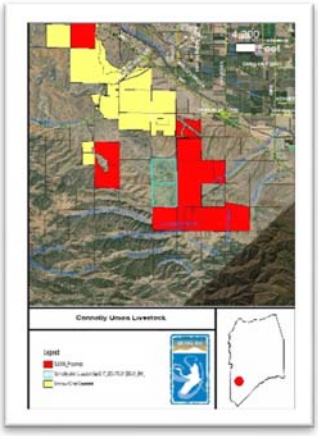
12/2020
SJCOG, Inc.

STAFF REPORT

SUBJECT: Connolly Union Livestock 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 Connolly Union Livestock Properties being considered are a total of 1,270 +/- acre. The landowner and SJCOG, Inc. contemplate an easement purchase under the habitat plan of approximately 1,200 +/- acres on the property for mitigation. The property is located west of the City of Tracy in the Southwest Zone. The potential preserve is adjacent to existing SJCOG, Inc. preserves in the Southwest 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 grassland habitat in the Southwest Zone for management economies of scale for species under the SJMSCP. The easement will serve for habitat for various species while providing mitigation for impacts under the habitat plan in the Southwest and Central Southwest Transition Zones.

There have been historical records of burrowing owl, San Joaquin kit fox corridor range, and other species on/near the property in the California Natural Diversity Database (CNDDB).

RECOMMENDATION:

A motion to the SJCOG, Inc. Board to

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

FISCAL IMPACT:

SJCOG, Inc. would accept a grasslands habitat easement on 1,200 +/- acres under the SJMSCP.

- Easement = **$1,200,000** (1,200 +/- acres x $1,000 per acre)

- Endowment = **$5,613,864 (**1,200 +/- acres x $4,678.22 per acre for 2020 endowment or amount at closing)

BACKGROUND:

The Connolly Union Livestock properties are located along the I-580 corridor west of the City of Tracy in the Southwest Zone. The properties consist of an active cattle operation that serves as habitat for several SJMSCP covered species. The conservation easement would cover 1,200 +/- acres of existing natural grassland habitat to mitigate for this project's development impacts in the Southwest and Central Southwest Transition Zone under the SJMSCP.

The draft PMP (attachment 3), prepared by ICF, reflects the existing Preserve Management Plans for grassland preserves in the Southwest Zone for economy of scale on long term monitoring activities. Their limited enhancements were planned to the landscape of the property other than squirrel abatement. Any additional future enhancements not displayed in Table 1 would be brought back as a supplemental PMP in cooperation with the 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:

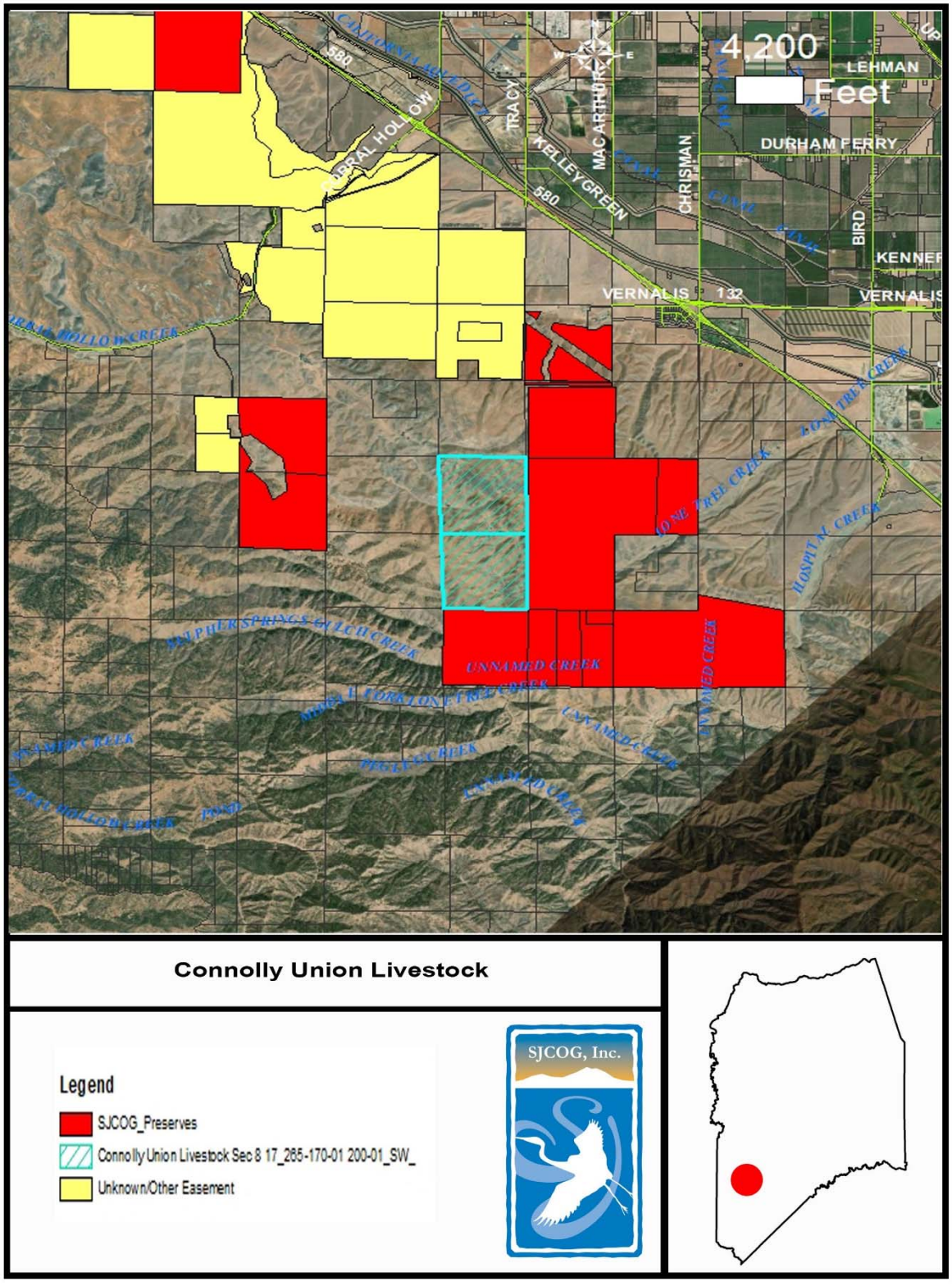
- Habitat Technical Advisory Committee: Recommended Approval
- SJCOG, Inc. Board – Action Required

ATTACHMENTS:

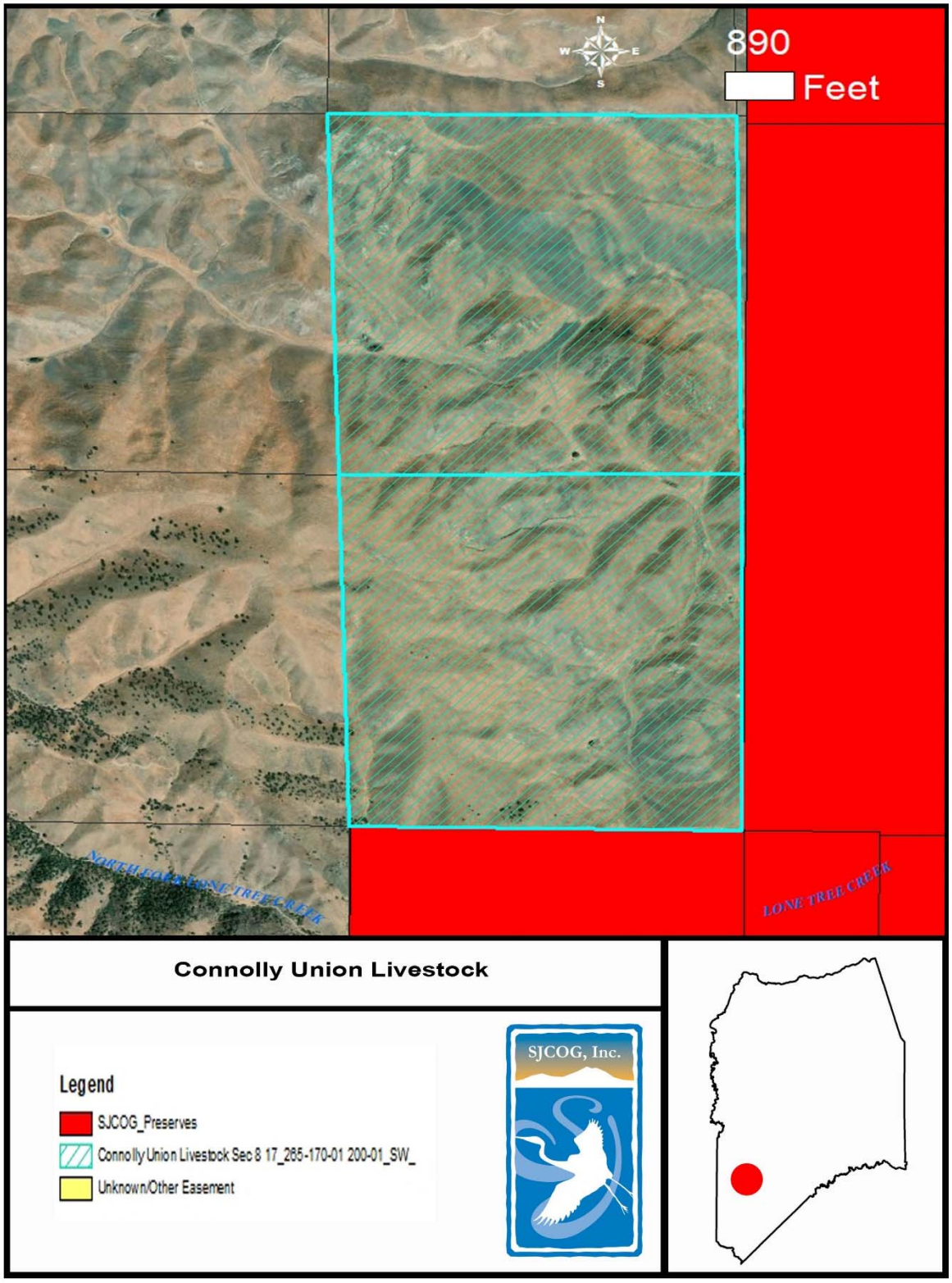
1. Overview Preserve Location Map
2. Preserve Location Map
3. Preserve Management Plan

Prepared by: Steven Mayo, Program Manager

ATTACHMENT 1



ATTACHMENT 2



ATTACHMENT 3

DRAFT PRESERVE MANAGEMENT PLAN FOR THE CONNOLLY UNION LIVESTOCK 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 19, 2020

ICF. 2020. *Draft Preserve Management Plan for the Connolly Union Livestock Property Preserve*. September. (ICF 00019.15) Sacramento, CA. Prepared for SJCOG, Inc., Stockton, CA.

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Figure 2 Connolly Union Livestock Property Preserve and Other Conservation Easements in the Vicinity

Figure 3 Connolly Union Livestock Property Preserve

Figure 4 Habitats Present on the Connolly Union Livestock Property Preserve

Figure 5 Habitats Present on the Connolly Union Livestock Property Preserve

Figure 6 Documented Occurrences of SJMSCP-Covered Species within 2 Miles of Connolly Union Livestock Property Preserve

Acronyms and Abbreviations

amsl	above mean sea level
CNDDB	California Natural Diversity Database
CULPP	Connolly Union Livestock Property Preserve
GIS	geographic information systems
HTAC	Habitat Technical Advisory Committee
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 Connolly Union Livestock Property Preserve (CULPP). The Connolly Union Livestock ranch is a relatively large ranch in southwestern San Joaquin and eastern Alameda Counties in the foothills of the Diablo Range. The Connolly Union Livestock Property Preserve (CULPP) is an approximately 1,200-acre portion of the ranch.

The preserve occurs approximately 2.7 miles southwest of Interstate 580 off Corral Hollow Road in southwestern San Joaquin County in the Southwest Index Zone of the SJMSCP (Figure 1).

The CULPP is intended to offset impacts resulting from the conversion of agricultural and natural lands primarily within the Southwest transition and Central Zones, 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 CULPP is located approximately 2.7 miles southwest of Interstate 580 off Corral Hollow Road in the foothills of the Diablo Range in southwestern San Joaquin County (Figure 1). Information pertaining to the property is provided in Table 1.

[1] San Joaquin County Council of Governments. 2001. *San Joaquin County Multi-Species Habitat Conservation & Open Space Plan*. Stockton, CA. Available: < https://ca-sjcog2.civicplus.com/DocumentCenter/View/5/Habitat-Planpdf?bidId= >. Accessed October 10, 2020.

Table 1. Connolly Union Livestock Property Preserve Information

Assessor's Parcel Numbers	265-17-01, 265-200-01
Acreage	1,200 acres
SJMSCP Index Zone	Southwest
USGS 7.5-minute quadrangle	Lone Tree Creek
Township	4S
Range	5E
Section	8 and 17

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

The CULPP encompassing most of sections 8 and 17 of the Lone Tree Creek USGS 7.5-minute topographic map (Figure 2). It is bordered by two additional conservation properties with easements purchased by SJCOG, Inc, the Rustan Preserve on the south and the McDonald (Elworthy) Preserve on the west (Figure 3). The Cubiburu, Connolly Ranch, and other preserves also occur in close proximity; therefore, purchase of this easement furthers the goal of consolidation and contiguity of conservation lands.

1.3 Land Ownership and Management

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

Landowner

Union Livestock
3400 S. Corral Hollow Road
Tracy, CA 95377
Contact: Hope Connolly
Phone: 209-835-7913

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

Chapter 2
Baseline Preserve Characteristics, Goals and Objectives

As noted above, the CULPP is an approximately 1,200-acre property owned by Connolly Union Livestock. SJCOG, Inc., intends to place a conservation easement on the property to maintaining extant habitat values which are currently achieved primarily through cattle grazing.

Elevations on the CULPP range from approximately 800 feet above mean sea level (amsl) in the valley bottom in the center of Section 8 to 1,400 feet amsl along the ridgetop that trends north to south in the southwest corner of Section 17. The vast majority of the preserve is comprised of slopes less than 40% (Table 2).

Table 2. Slope Analysis for the Connolly Union Livestock Property Preserve

Slope Classes (% slope)	Percent of Area
0–5	11
5–10	10
10–15	16
15–20	17
20–30	26
30–40	13
>40	7
Total	100

Both sections 8 and 17 are comprised almost entirely of non-native annual grasslands with gently rolling topography (Figure 4). A single ephemeral drainage is delineated on the 7.5- minute topographic map of the area, but it contains no vegetation to distinguish it from adjacent upland habitats. The amount and duration of surface water varies annually depending on annual precipitation, but ponding sufficient to support breeding habitat for California red-legged frog (*Rana draytonii*) or California tiger salamander (*Ambystoma californiense*) is unlikely to occur in most years (Figures 4 and 5).

California ground squirrels (*Otospermophilus beecheyi*) occur in patches throughout most of the lower elevations and slopes on the CULPP, which substantially increases habitat suitability for many SJMSCP covered species. Grazing intensity appears to be quite high, as the majority of annual grasslands, particularly at lower elevations, are comprised of grasses less than 2 inches high with low cover (Figure 4). Cattle distribution on the property is somewhat limited by the availability of water.

The CULPP is part of a large cow-calf operation and maintains cattle on the property year around, although cattle are moved among several distinct and pastures separated by cross fencing.

The majority of lands in the Southwest Index Zone are classified as Natural Lands. Lands surrounding the CULPP are used primarily for livestock grazing. Valley Grasslands occur for several miles in all directions, although Blue Oak–Conifer Savannah and Blue Oak–Conifer Woodland mixed with Valley Grassland occur a quarter to a half mile to the south-southwest.

There are a few scattered patches of non-native pepper trees originally planted to provide shade for cattle, and a scattering of oak tree (*Quercus sp*.) along the ridges at higher elevations (Figure 5).

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 CULPP. Thirty occurrence records of 10 species were identified: large-flowered fiddleneck (*Amsinckia grandiflora*) (2 records), coast horned lizard (*Phrynosoma coronatum*) (2 records), western spadefoot (*Spea hammondii*) (4 records), California red-legged frog (1 record), burrowing owl (*Athene cunicularia*) (5 records), golden eagle (*Aquila chrysaetos*), (1 record), San Joaquin pocket mouse (*Perognathus inornatus*) (1 record), Berkeley kangaroo rat (*Dipodomys heermanni berkeleyensis*) (2 records), Townsend's big-eared bat (*Corynorhinus townsendii*) (1 record), and San Joaquin kit fox (*Vulpes macrotis mutica*) (11 records). None of these occurrences are on the CULPP (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 CULPP are listed below.

- Valley Grassland with the following preserve elements
  - north-facing slopes on grasslands at elevations nearing the blue oak belt
  - Poorly-drained, fine alkaline soils, sometimes near scrub
  - 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, and other snakes
  - presence of short grasses, sometimes almost barren ground

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

- Large-lowered fiddleneck
- Recurved larkspur
- California horned lizard
- Berkeley kangaroo rate
- San Joaquin pocket mouse
- American badger
- San Joaquin kit fox
- Western burrowing owl

- San Joaquin whipsnake
- Golden eagle
- Ferruginous hawk
- Northern harrier
- White-tailed kite
- California horned lark
- Mountain plover
- Long-billed curlew

The annual grassland habitats on the preserve also benefit several other species, including resident and wintering raptors, songbirds; jackrabbits (*Lepus californicus*), California king snakes (*Lampropeltis getula*), and several species of reptiles.

2.2 Goal and Objectives of the Management Plan

The CULPP 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 of SJMSCP-covered species, including San Joaquin kit fox, burrowing owl, coast horned lizard, and other species associated with upland habitats in the southwest grassland index zone. ***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 CULPP is primarily comprised of dry pasture, the primary goal of the preserve is to provide habitat for San Joaquin kit fox and other species dependent upon upland grassland habitats.

To achieve this goal, the objectives of controlling noxious weed infestations, preventing soil erosion, maintaining water quality, reducing fire hazards, and allowing for the establishment and maintenance of populations of California ground squirrels must be achieved. These objectives can be achieved primarily through implementation of best range management practices designed to maintain ecosystem health and rangeland conditions of maximum value by controlling vegetation height through grazing. Other management actions include the cessation of rodent control.

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 CULPP will generally be managed according to the guidelines for Southwest Zone Grassland Preserves outlined in section 5.4.8.3(A) of the SJMSCP. These guidelines state that best range management practices be implemented to avoid under or overgrazing to maintain cover for rodents that provide a food and burrow source for SJMSCP-covered species.

3.1 Grazing Management Practices

Grazing management practices for conservation and management of valley grassland habitat will be based primarily on maintaining appropriate grass height and vegetation density through livestock grazing and a cessation of rodent control. 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.

To maintain optimum habitat values, average grass height should be maintained in the range of 3–12 inches year-round, with 4–7 inches being optimal. The maximum grass height of 12 inches is acceptable for short periods during the growing season, if necessary, if such a height is the result of the infeasibility of increasing stocking rates due to excessive spring grass growth in unusually wet years.

Herbaceous plant growth in California is limited by lack of soil moisture in summer and by cold temperatures in winter. This pattern results in rapid herbaceous plant growth in fall after the first rains, slow winter growth, and rapid growth again in spring, ending as plants die or become dormant in summer. The basic pattern is similar from year to year, but the timing and amount of growth varies. Accordingly, grazing should be conducted from at least November 1 to May 31, a period of 7 months. Grazing is also permitted in summer, if necessary, and if the grazing management standards are achieved.

Grazing during the wet season could cause wet soils and stream banks to become more vulnerable to compaction and erosion during times of higher than normal precipitation. During winter and spring, the relatively more nutritious herbaceous forage normally attracts grazing animals to the uplands, limiting impacts on stream banks.

Taller vegetation is to be expected on the upper slopes because these areas are usually grazed less heavily. The average grass height is usually less on the lower slopes than the upper slopes due to livestock preference for grazing the lower slopes.

The actual livestock numbers and grazing period will be adjusted by the landowner as necessary to achieve the vegetation height performance standard. The landowner will base the stocking rate and grazing period on the mix of cows and calves, the age and weight of the animals, planned seasonal

adjustments, and experience with forage demands of the livestock to be used. A change in livestock type will require concurrence from the SJCOG Habitat Technical Advisory Committee (HTAC).

Periods of drought could cause forage reductions that would require the landowner to find alternative grazing locations, provide supplemental feed, or both. In the event of emergency loss of forage on the property, the landowner will move the cattle off the property to the extent possible. Supplemental feeding will be allowed on the property as needed as long as the feeding stations (areas of livestock concentration and deposit of waste) are at least 45 feet from the banks of the low-flow stream channel.

3.2 Prohibited Uses and Activities

This section identifies prohibited uses of the preserve under the CULPP Conservation Easement. *Landowner* refers to Union Livestock. *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, including the preserve land manager and representatives of the HTAC under the direction of SJCOG, Inc..

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 CULPP 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 CULPP from grazing land to other agricultural uses or other land uses that are not compatible with providing valley grassland habitats for SJMSCP covered species 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 routine maintenance of existing cattle watering infrastructure or installation of preserve enhancements approved by the HTAC.

3.2.4 Chemicals

Except for those pesticides, herbicides, fungicides, or fertilizers used in ongoing grazing practices 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

(other than fossorial mammals) 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. except commercial hunting pursuant to programs administered by the California Department of Fish and Wildlife or its successor, such as the Private Lands Management Program which the landowner is currently investigating and may wish to participate in. Such limited commercial hunting is allowed conditioned on compliance with the terms of said program, and only if such hunting is consistent with the Goals and Objectives of this Preserve Management Plan. No 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

Rodent and predator control will not be practiced in the CULPP until such time as robust populations of California ground squirrel have become established, and then only with 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—should it become necessary and as approved by the HTAC—will be conducted using shooting only with lead-free ammunition.

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.
- Lighting.
- 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 CULPP Conservation Easement. Although some activities may be permitted under the Conservation Easement and/or 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 cattle 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 or is conducted in such a manner that it could result in the take of 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.

3.3.3 Structures

The installation of new water pipelines and associated water troughs along with additional cross fences to be installed for the purposes of better regulating and distributing grazing activity are permitted.

3.4 Affirmative Obligations

This section identifies the affirmative obligations of the landowner under the CULPP 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 Corral Hollow Road when necessary (Figure 3). The CULPP is currently protected by locked gates, and is 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 track the condition of the rangelands, 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 CULPP. However, if habitat capable of supporting large flowered fiddleneck or other SJMSCP-covered plant species is identified, preserve enhancements may be considered in the future.

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 SJMSCP-covered species that occur in valley grassland habitats.

Chapter 4
Monitoring and Adaptive Management

This chapter describes the biological monitoring plan and reporting requirements for land management activities on the CULPP. 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 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).

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. However, additional surveys to map potential habitat for SJMSCP-covered plant species may become necessary.

Baseline surveys to determine presence of SJMSCP covered species will be conducted within the first few years of acquisition. The surveys will likely consist of periodic surveys to document the distribution and abundance of California ground squirrel colonies, periodic surveys to determine presence of burrowing owls, and periodic camera station surveys to detect San Joaquin kit fox, although surveys for other species may also be conducted.

The results of all surveys will be documented 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

Although no preserve enhancement are currently propose for the CULPP, monitoring preserve enhancements would be required to ensure that the goals of the preserve enhancements are realized should they be implemented at some point 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 1200 acres of designated natural lands are maintained in suitable condition 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 CULPP. 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 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 burrowing owl, San Joaquin kit fox, 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.

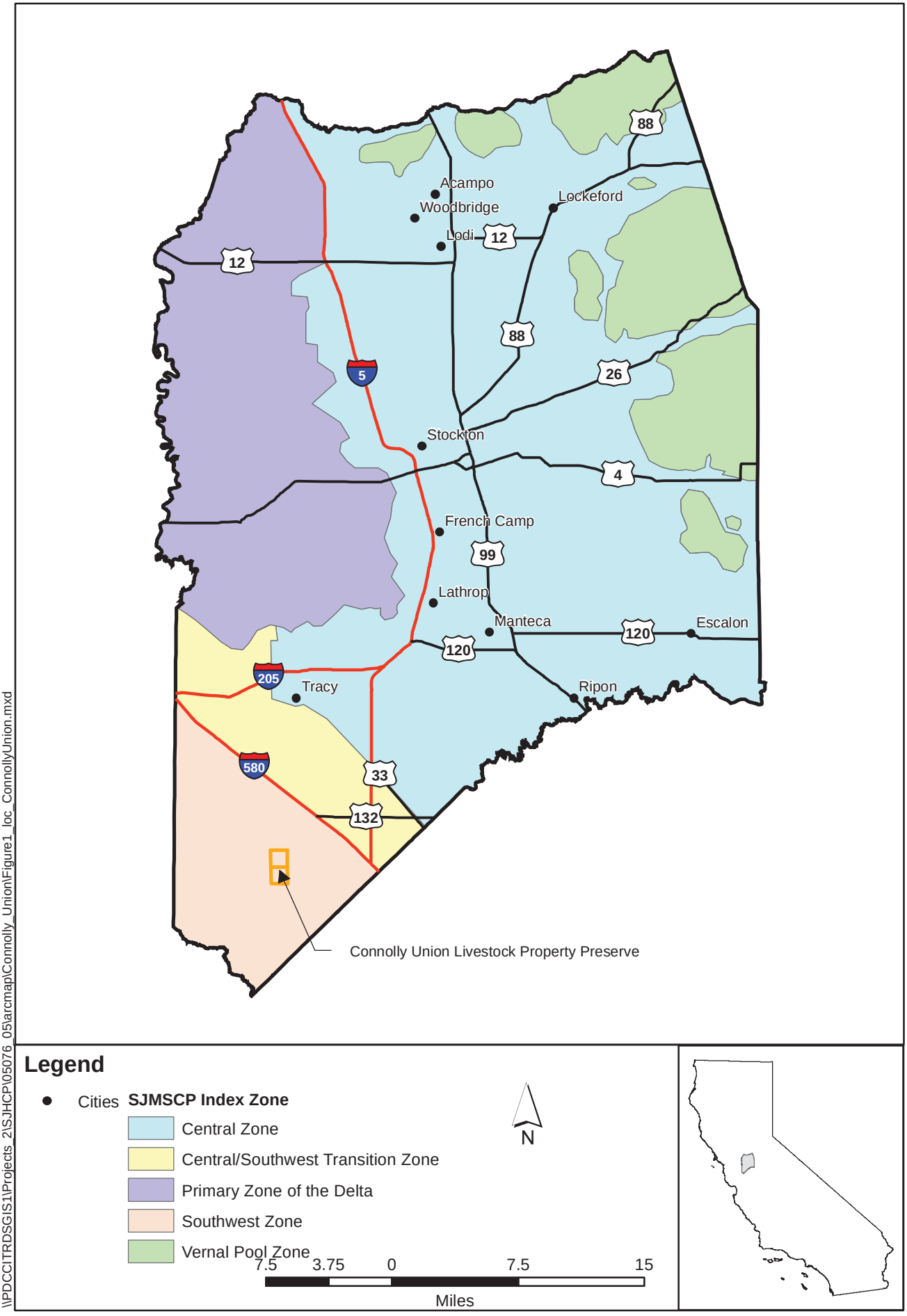

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Figure 1
Connolly Union Livestock Property Preserve
San Joaquin County

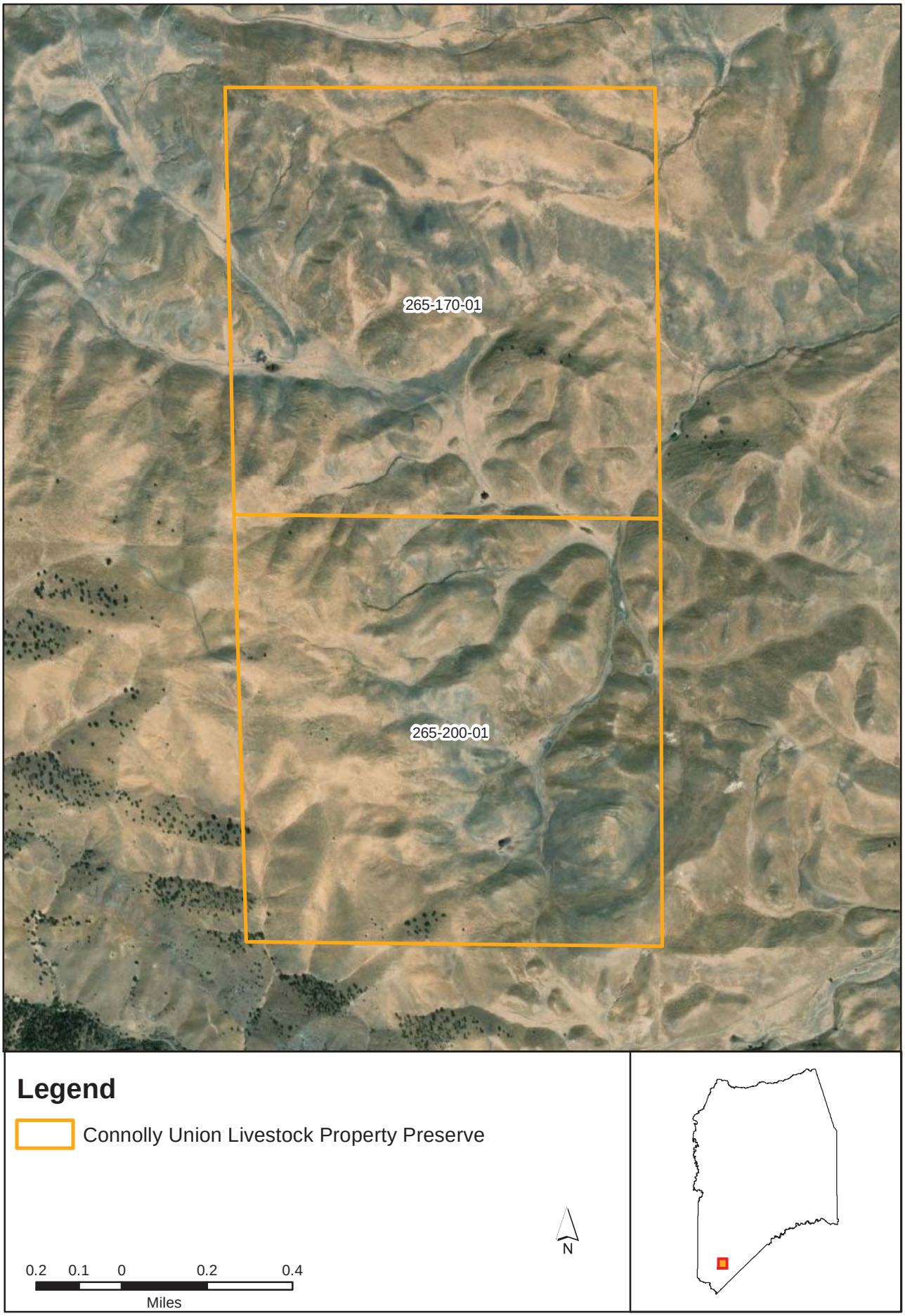

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Figure 2
Connolly Union Livestock Property Preserve

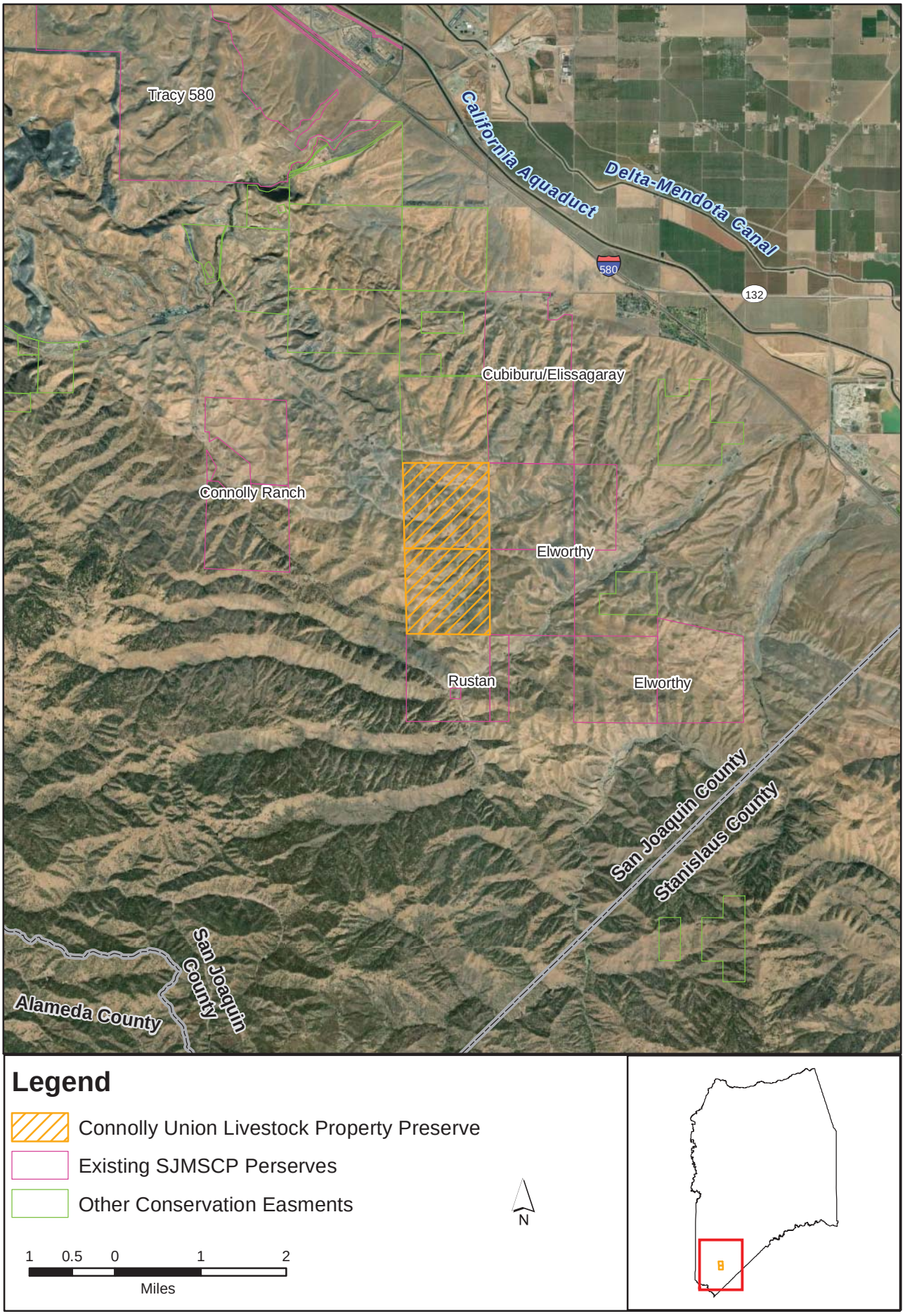

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Figure 3
Connolly Union Livestock Property Preserve and Other Conservation Easements in the Vicinity

Photo 1. Heavily grazed valley grassland habitats typical of those found on the property.

Photo 2. Habitat near the ephemeral drainage identified on the topographic map.

Graphics... 00019.15 (5-17-2016) TG

ICF INTERNATIONAL

Figure 4
Habitats Present on the Connolly Union Livestock Property Preserve

Photo 1. Non-native trees planted to provide shade for cattle.

Photo 2. Ponded habitat and scattered oak trees that occur at the highest elevations.

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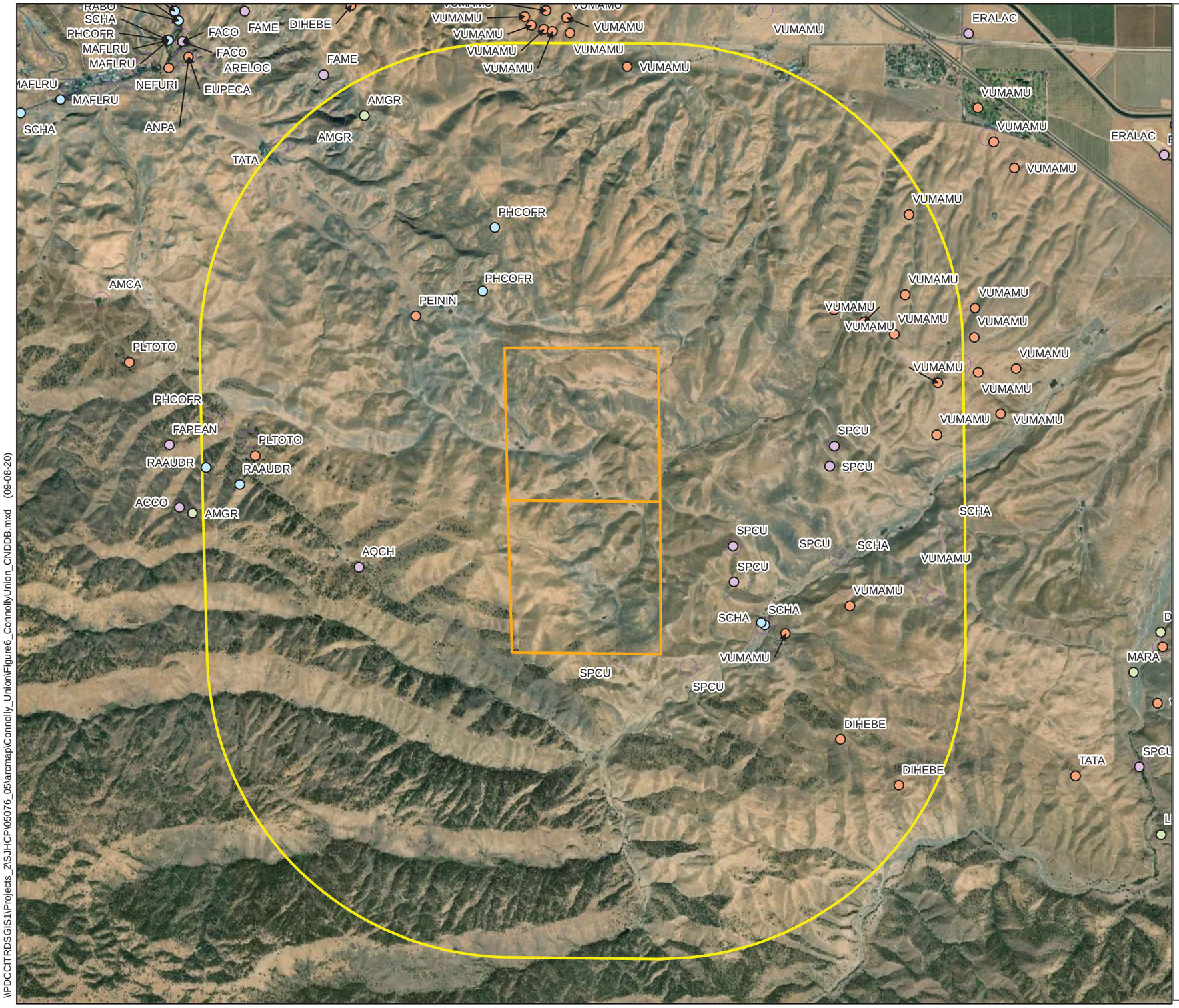
Figure **5**
Habitats Present on the
Connolly Union Livestock Property Preserve



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Connolly Union Livestock Property Preserve

Connolly Union Livestock Property Preserve 2-Mile Buffer

California Natural Diversity Database Species Records

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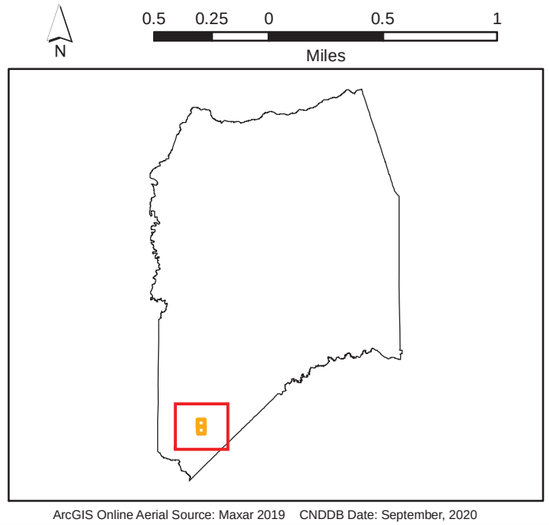
- Plants
- Invertebrates
- Amphibians and Reptiles
- Birds
- Mammals

pe ies ithin Mile a ius o
Connolly nion ivesto Property Preserve

Code	Species Name	Code	Species Name
AMCA	California Tiger Salamander	NEFURI	Riparian Wood Rat
AMGR	Large Flowered Fiddleneck	PEININ	San Joaquin Pocket Mouse
ANPA	pallid bat	PHCOFR	California Horned lizard
ARELOC	California glossy snake	PLTOTO	Townsend's Big Eared Bat
DIHEBE	Berkeley Kangaroo Rat	RAAUDR	California Red-legged Frog
ERALC	California horned lark	RABO	Foothill Yellow-Legged Frog
EUPECA	Western mastiff bat	SCHA	Western Spadefoot Toad
FACO	Merlin	SPCU	Burrowing Owl
FAME	Prairie Falcon	TATA	American Badger
MAFLRU	San Joaquin Whipsnake	VUMAMU	San Joaquin Kit Fox
MARA	Showy Madia		



ArcGIS Online Aerial Source: Maxar 2019 CNDDB Date: September, 2020

Figure **6**

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