

**APPENDIX J**

**TRAIL CONSTRAINTS AND RECOMMENDATIONS  
FOR  
SANTA YSABEL OPEN SPACE PRESERVE WEST**

April 25, 2008

Jennifer Haines  
County of San Diego  
Department of Parks and Recreation  
9150 Chesapeake Drive, Suite 200  
San Diego, CA 92123

**Subject: Trail Constraints and Recommendations for Santa Ysabel Open Space Preserve West.**

Dear Jennifer,

Technology Associates (TAIC) and ASM Affiliates, Inc. (ASM) performed an analysis of the current ranch roads on the Santa Ysabel Open Space Preserve West (SYOSP West) with the goal of identifying any biological or cultural resources constraints for recreational trail routes, trail construction and management recommendations. The SYOSP West is currently not open to recreational public use and no officially designated recreational trails exist on the Preserve. However, a series of ranch roads and smaller trail systems traverse the Preserve. These existing ranch roads vary in width between 8 and 12 feet. The County is planning to open the Preserve for passive recreational activities.

The trail system on SYOSP West will follow the alignment of current ranch roads as much as practicable to avoid impacts to cultural or biological resources. Variance to the existing ranch road alignments may be required to overcome a steep downhill grade approaching Santa Ysabel Creek, the construction of a stream crossing over Santa Ysabel Creek, and to create a new trail segment connecting the northern loop trail within the Preserve if the County cannot secure appropriate access permits to neighboring properties. Recreational trails should be 8 feet wide at a minimum to accommodate multi use access, including hiking, mountain biking, and equestrian use, and not exceed a width of 12 feet, if practicable, to avoid disturbing sensitive cultural or biological resources, as detailed below.

Cultural resources inventories were conducted during the months of December 2007 through February 2008. General biological resource inventories were performed between the years 2000 and 2004 by the U.S. Geological Survey (2004), Virginia Moran (2003), and Conservation Biology Institute (2000). However, no specific focused biological surveys have been conducted for the planning or construction of a trail system on SYOSP West.

It is our recommendation to maintain the existing ranch roads to the extent feasible to create a functional loop trail system and avoid creating new trails, unless absolutely necessary. Rerouting the trail along the natural contours of a steep drop toward Santa Ysabel Creek, just south of the creek, is proposed; no cultural or sensitive biological resources are known from this area. Potentially occurring resources and details of our recommendations are discussed below.

## Cultural Resources

None of the cultural resources located within SYOSP West has been evaluated for eligibility for inclusion in the California Register or the National Register; therefore, it is assumed that they should be treated as eligible. Both the California Register and the National Register include criteria for evaluation of eligible resources. These are described below.

From information collecting during basic field inventories conducted for this project, the prehistoric archaeological sites within SYOSP West appear to meet, Criterion 1 of the San Diego County Local Register of Historical Resources and the California Register, and Criterion A of the National Register, and Criterion 4 of the San Diego County Local Register of Historical Resources and the California Register, and Criterion D of the National Register. Formal eligibility evaluations will require additional field research, analysis, and documentation.

The County's criteria for the Local Register are comparable to the California and National Registers, except significance is evaluated at the local level.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) consisting of the following:

- (1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
- (2) It is associated with the lives of persons important to local, California, or national history; or
- (3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- (4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The National Register of Historic Places criteria mirror the California Register criteria. The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (a) that are associated with events** that have made a significant contribution to the broad patterns of our history; or
- (b) that are associated with the lives of persons** significant in our past; or
- (c) that embody distinctive characteristics** of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) that have yielded, or may be likely to yield, information** important in prehistory or history.

Criteria 1/A and 4/D reflect the traditional importance of the Santa Ysabel area and the archaeological site diversity and quantity found on the property as a result of the survey. These sites may be associated with the traditional cultural landscape of the Santa Ysabel and Mesa Grande Reservations, representing seasonal occupation and use of the grasslands and meadows. These areas have also been identified as sensitive by Native Americans for their cultural values. As archaeological sites, the resources also contain information important to the prehistory of the San Diego region. The integrity of these resources is very good, since access has been restricted. Further investigation is needed prior to making eligibility recommendations; therefore, these resources will be treated as eligible for the purposes of this project.

The sites also appear to be covered by the County of San Diego's Resource Protection Ordinance (RPO), since they are "one of a kind, locally unique, or regionally unique cultural resources which contain a significant volume and range of data or materials." They may also be considered of ritual, ceremonial, or sacred value to local Native Americans.

No historic-era archaeological or structural resources were identified. Corrals and guzzlers on the property are recent.

Existing ranch roads proposed for use as trails cross archaeological sites in several locations. Continued use and maintenance of these roads will result in incremental damage to these sites. While the footprint of the segment of road that crosses the site is small relative to the size of SYOSP West, the destruction of important and sensitive cultural material over time could be significant (Hector et al., 2006).

#### Trail Recommendations for Cultural Resources:

The County has stated that the project will not result in any ground disturbance. If new trail segments are proposed by the County, additional field surveys and impact analyses will be necessary. To further protect the cultural resources, the following impact avoidance measures are recommended:

1. Actively protect archaeological sites.
  - a. The County of San Diego, Department of Parks and Recreation, will determine if damage is noted at the sites. If damage is noted, the County may cap the sites to protect them from further damage. The County will determine the manner and extent of capping in site areas.
  - b. Limit road/trail maintenance within the site boundaries, lifting the equipment blade so that no grading occurs. If periodic grading or maintenance is required, an archaeologist and Native American monitor should be present to ensure that the site is not damaged. This alternative may be successful and used instead of capping in areas that are relatively level and require minimal maintenance.
  - c. Install fencing and/or barricades to restrict access to site areas. The County of San Diego, Department of Parks and Recreation, will determine the location and extent of fencing to protect sites. Appropriate signage may be added, as long as it does not reference locations of archaeological sites or cultural resources. Replace the barricades as they become damaged and worn.
  - d. Monitor site condition once a year. Photodocument the site condition so that comparisons can be made over time. More aggressive measures may be needed if vandalism and damage continue or increase.
  - e. Interpretive signage describing the prehistoric and historic use of the Santa Ysabel area may be provided by the County. The signage should not describe specific site locations or reference a particular site, and should be placed away from recorded sites. An appropriate location for interpretive signage would be the entry area and parking area.
2. The County has established a staging area by only removing grass to define the area. The staging area will be maintained by mowing and should not require grading or ground disturbance. The location of the staging area was selected by the County to avoid impacts to cultural resources. If

additional staging areas are planned, archaeological sites should be avoided. If this mitigation measure is not feasible, the portions of a site impacted by the staging or parking areas should be tested for significance, and if significant, a data recovery program should be implemented by the County.

3. Consult with Native Americans, at a minimum the Santa Ysabel tribe, to identify concerns about trails and trail use. The consultation process should be established as an ongoing relationship.

Figure 1 shows the recommendations for trail segments that are located within archaeological sites. It is recommended that fencing be installed to restrict access to the archaeological sites. If impacts to the sites are detected, the County may implement a capping program.

## Biological Resources

### Plants

No federally or state threatened or endangered plants have been reported from SYOSP West. Sensitive plants have been reported (Moran 2003) adjacent to and in the vicinity of the existing ranch road system, including the following plants (Figure 2; note that the figure only shows sensitive plant locations where spatial data are available, and is not a realistic depiction of all sensitive plant locations in the Preserve) listed as List 1 B (rare, threatened or endangered in California) by the California Native Plant Society (CNPS):

- Hall's gumweed (*Grindelia hirsutula* var. *hallii*)
- Descanso milkvetch (*Astragalus oocarpus*).

Engelmann oak (*Quercus engelmannii*), which is a CNPS List 4 species, is the dominant tree species on SYOSP West and individual oaks occur next to the trails.

Currently, only one sensitive biological resource has been recorded from the existing ranch roads within SYOSP West. Hall's gumweed likes to grow in disturbed areas including old dirt roads and is common in many of the dirt roads on SYOSP West (Moran 2003).

Other CNPS listed plants that may have historically occurred on SYOSP West or its vicinity are:

- Banner dudleya (*Dudleya saxosa aloides*, CNPS List 1 B)
- Cleveland sage (*Salvia clevelandii*, no listing)
- Jewelflower (*Caulanthus heterophyllus heterophyllus*, CNPS List 1 B)
- Prostrate spineflower (*Chorizanthe procumbens*, no listing)
- Sierra skullcap (*Scutellaria bolanderi* ssp. *austromontana*, CNPS List 1 B).

Sierra skullcap has been recorded adjacent but outside SYOSP West boundaries, and has not been reported from within SYOSP West; however, it could potentially occur on SYOSP West in chaparral and foothill woodland habitats (as shown from CNDDB records in Figure 2).

### ***Animals***

The SYOSP West entrance includes potential habitat for the federally and state endangered Stephens' kangaroo rat (SKR, *Dipodomys stephensi*, CBI 2002); however, no focused trapping surveys have been conducted and the species was not detected during small mammal trapping surveys conducted by USGS (USGS 2004). The federally endangered arroyo toad (*Bufo californicus*), and the western spadefoot (*Spea hammondi*), which is a state species of special concern, are also present in and around Santa Ysabel Creek, including the area where the current ranch road crosses Santa Ysabel Creek (Figure 3).

### **Trail Recommendations for Biological Resources:**

The following trail routing and impact avoidance measures are recommended:

1. Maintain existing ranch roads in the current configurations as much as feasible to avoid impacting sensitive biological resources, including sensitive plants and animals. Avoid the drip line (edge of canopy and root zone) of oaks, specifically Engelmann oaks, during road maintenance.
  - a. Trail signs warning of potential trail hazards (e.g., steep grade, potential flooding) should be installed at specific locations. Maintenance roads and areas containing sensitive biological resources should be clearly labeled (e.g., "Sensitive Resources – Please Stay on Trail"). Interpretive signage illustrating the biological and landscape resources of the Preserve should also be installed at strategic points. These locations should be determined following a site specific survey taking into consideration trail experience, vistas, and such points of interests as fire scars, historic cattle grazing and gathering sites, groves with Engelmann oaks, riverine ecosystem associated with Santa Ysabel Creek, etc.
2. The only new trail alignments or trail connectors planned for SYOSP West at this time include switchbacks to align the trail across the steep grade toward Santa Ysabel Creek (going north), and a crossing over Santa Ysabel Creek. In addition, if the County cannot secure access from neighboring property owners, the proposed northern loop trail may need to be located on County property. New trail or crossing construction would require the following measures:
  - a. The width of new trail construction corridors extending through sensitive habitats (e.g., oak woodlands and wetlands) shall be minimized to the extent practicable. Trail construction shall be conducted to minimize grading and soil disturbance.
  - b. If wetlands cannot be avoided for proposed crossing over Santa Ysabel Creek, regulatory review under sections 401 and 404 of the Federal Clean Water Act, and Section 1600 of the California Fish and Game Code may be required, and permits may need to be acquired from the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board, and CDFG.
  - c. New trails or trail connectors may require review under the California Environmental Quality Act (CEQA). If sensitive species or their habitats have been identified in areas of new trail/staging area construction, trail connectors, or crossing over Santa Ysabel Creek, site specific biological surveys should be performed. Avoidance of sensitive biological resources should be considered when determining the trail alignment.
  - d. A qualified biologist should monitor construction in areas supporting potentially sensitive habitats or species adjacent to the new trail construction limits and crossing over Santa Ysabel Creek.

- e. Ideally, any required vegetation removal in association with new trail construction or creek crossing should occur outside the bird breeding season. If the removal of native vegetation and/or mature trees within the new trail construction limits is proposed during the breeding season for sensitive nesting migratory birds (February 15 through August 30) or during the raptor breeding season (generally between January 1 and July 30), a survey for active nests should be conducted prior to vegetation/tree removal; active nests should be avoided; and temporary orange construction fencing will be installed to maintain the following buffer distances around the nests, until the young birds have fledged: up to 500 feet for raptors and 100 feet for all other sensitive breeding bird species.
  - f. Trail construction noise that may affect sensitive biological resources should be limited to the non-breeding season.
  - g. Vegetation outside the approved construction limits should not be cut or sprayed with herbicide unless specifically authorized through an invasives removal program.
  - h. Construction personnel should park private vehicles in designated areas within the approved construction limits.
  - i. During clearing, grading, excavation, construction, or hauling of excavated materials, water trucks or sprinkler systems should be used as necessary to reduce airborne dust.
  - j. Where practicable, disturbed areas should be recontoured to be compatible with the surrounding topography and revegetated with native species occurring in the vicinity of the project site.
3. Trail maintenance in the potential SKR area should be limited to the existing trail footprint. If periodic grading or maintenance is required, the following steps may be necessary:
- a. a biological monitor should search the area for burrows;
  - b. if burrows are found, a certified biologist should conduct a focused trapping survey of the area prior to road maintenance (grading) to determine that SKR do not occupy the edge of the road that may be affected by road maintenance (SKR tend to burrow in loose soil/spoils created at road edges from grading);
  - c. if SKR occupy the site, impacts to the species by road maintenance activities shall be assessed. The USFWS and CDFG should be consulted to ascertain need for "take" permits for SKR under federal and state endangered species acts for the purpose of road maintenance. Any negative affect on the species will require mitigation, including conservation and management of extant SKR populations and potential translocation of the individuals affected by road maintenance.
4. Currently, the ranch road crosses Santa Ysabel Creek along an unmodified crossing. A formal crossing over the creek will need to be installed for public trail use considering the following options:
- a. keeping the crossing unmodified (soft surface "Arizona" crossing);
  - b. constructing a stabilized "Arizona" crossing (decomposed granite or hard surface improvement);
  - c. installing culvert(s) under the trail/road; and
  - d. constructing a span bridge avoiding sensitive biological and wetlands resources.

Site-specific planning, environmental review under the California Environmental Quality Act (CEQA), focused species surveys (if needed) and resources agency permits (listed species take

permits and wetlands permits) would be required for the construction of any creek crossing, including when maintaining the status quo of using an unmodified crossing, as follows:

- i. A site-specific analysis under CEQA will be required for the construction of a stream crossing over Santa Ysabel Creek. The type and extent of CEQA review will need to be determined through an Initial Study based on the nature of the proposed crossing and the associated environmental impacts.
- ii. Biological resources surveys may need to be performed following provisions detailed above (including focused arroyo toad surveys pursuant to USFWS protocol).
- iii. A wetlands delineation following the latest USACE guidelines (e.g., 1987 Wetlands Manual and Arid Lands Supplement) and wetlands determination using CDFG-accepted Cowardin (1975) should be conducted to determine wetlands jurisdictional boundaries.
- i. Avoiding USACE and CDFG wetlands jurisdiction is highly advisable when planning a bridged crossing. The bridge should span from upland areas outside wetlands jurisdictions; the bridge end points should be located in upland habitat void of sensitive biological resources.

The least environmentally damaging alternative should be selected for crossing Santa Ysabel Creek, including siting the crossing to avoid sensitive biological and wetlands resources. We recommend that Santa Ysabel Creek be crossed using a bridged crossing to avoid disturbing amphibian egg masses during the breeding season by recreational use of the trail and crossing.

In summary, sensitive cultural and biological resources should be identified and avoided when planning new trails, trail connections, creek crossings, and the maintenance of trails and staging areas.

## References

- Conservation Biology Institute (CBI). 2002. Stephens' kangaroo rat survey and management recommendations for the Santa Ysabel Open Space Reserve, San Diego County, California.
- CBI. 2000. Conservation Planning Analysis, Santa Ysabel/Mesa Grande Focused Planning Area, Eastern San Diego Mountains Project. Prepared for The Nature Conservancy. June 5.
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- Hector, Susan M., Daniel G. Foster, Linda C. Pollack, Gerrit L. Fenenga, and J. Charles Whatford. 2005. A Charmstone Discovery in the Redwood Forests of Mendocino County, California. Report prepared for the California Department of Forestry and Fire Protection. ASM Affiliates, Inc.
- Moran, Virginia. 2003. Rare Plant and Vegetation Surveys 2002 and 2003. Ecological Outreach Services.
- Technology Associates International Corporation. 2007. Adaptive Habitat Management/Livestock Grazing Plan, Santa Ysabel Open Space Preserve East and West. Prepared for County of San Diego Department of Parks and Recreation.
- USGS. 2004. Baseline Biodiversity Surveys for Santa Ysabel Open Space Preserve. Prepared by Stacie Hathaway, Robert Fisher, Carlton Rochester, Chris Haas, Mark Mendelsohn, Greta Turschak,

Drew Stokes, Melanie Madden-Smith, Ed Ervin, Krista Pease, and Chris Brown for The Nature Conservancy and the County of San Diego Department of Parks and Recreation.

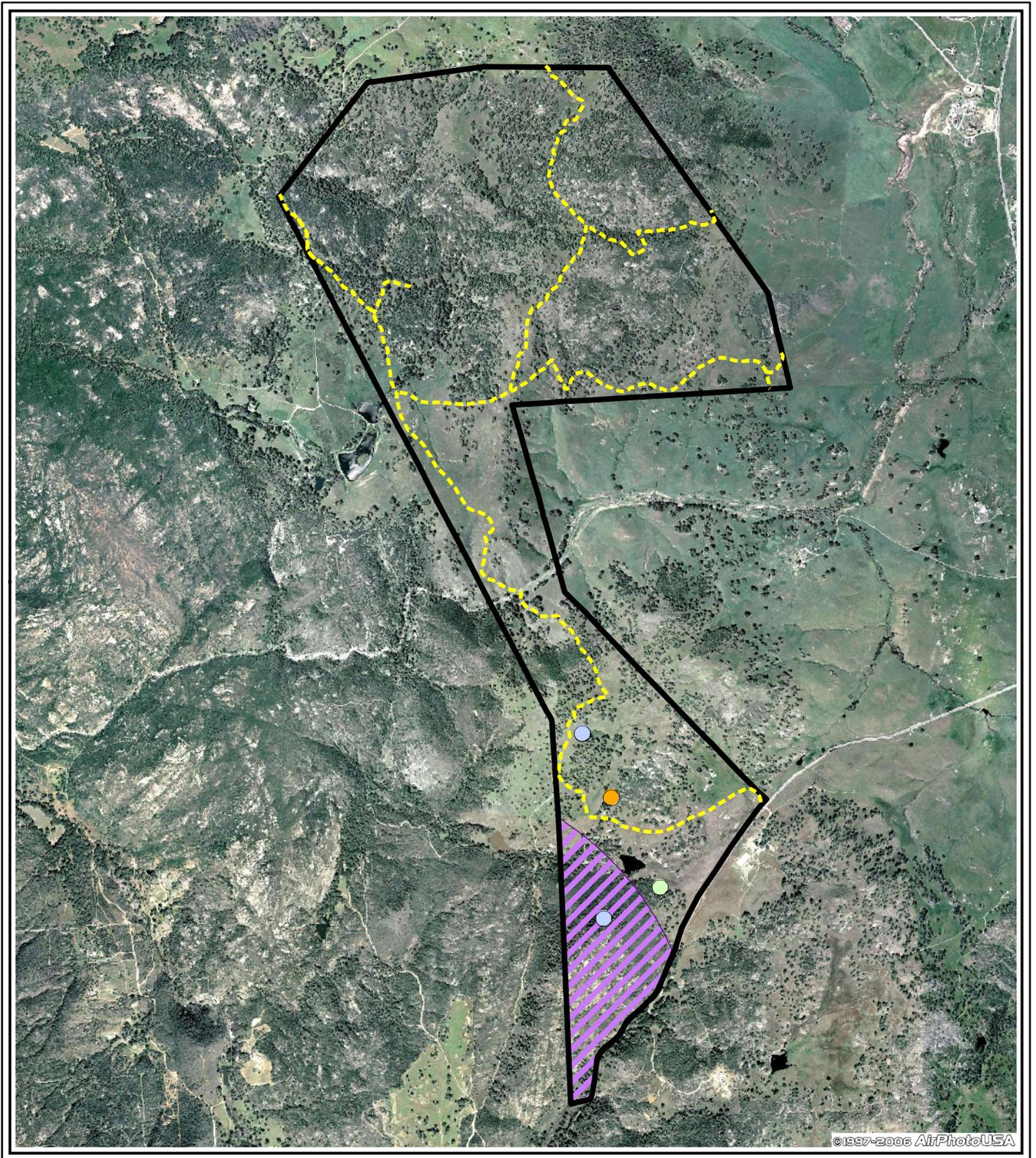
Please feel free to contact Christina Schaefer at (858) 300-2346 ext. 111 or email [cschaefer@taic.net](mailto:cschaefer@taic.net), or contact Susan Hector at (760) 804-5757 or email [shector@asmaffiliates.com](mailto:shector@asmaffiliates.com) if you have any questions regarding the findings and recommendations in this report.

Sincerely,

A handwritten signature in black ink, appearing to read 'Christina Schaefer', written over a rectangular box.

**Christina Schaefer**  
**Project Manager**

Attachments (graphics)



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**Legend**

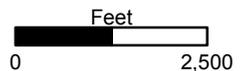
- *Astragalus oocarpus*
- *Grindelia hirsutula var. hallii*
- *Quercus engelmannii*

Potential occurrence of

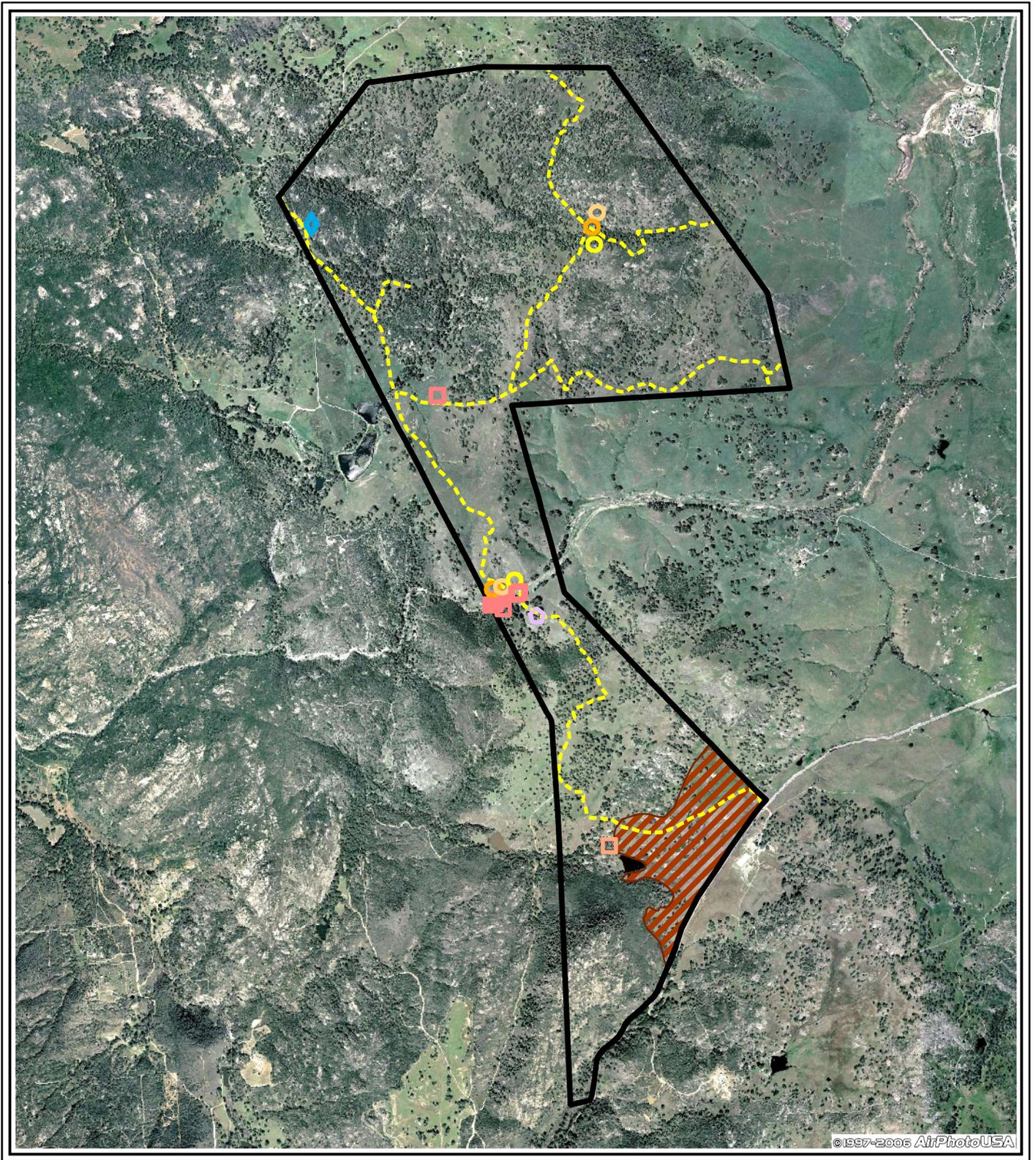
- Scutellaria bolanderi ssp. austromontana*  
and *Grindelia hirsutula var. hallii*

**Basemap Legend**

- Santa Ysabel Preserve
- Ranch Road



Source: CNDDB, San Diego Plant Atlas, and County of San Diego



**Legend**

**Target or Sensitive Species\***

- Arroyo Toad
- Western Spadefoot
- California Myotis
- Western Small-footed Myotis
- Yuma Myotis
- Yellow Warbler
- Two-striped Garter Snake

- Potential Stephen's Kangaroo Rat Habitat

**Basemap Legend**

- Santa Ysabel Preserve
- Ranch Road



Source: Animal species data provided by USGS, 2002-2005.  
 \* Overlapping data points were shifted for display purposes.

**Santa Ysabel Open Space Preserve  
 Sensitive Wildlife Species in Western Preserve**

**Figure 3**