

Annual Monitoring Report (2010-11)

# 4S Ranch Specific Plan Habitat Management Plan Area



SEPTEMBER 2011

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**ANNUAL MONITORING REPORT (2010–2011)**  
**for the**  
**4S RANCH SPECIFIC PLAN**  
**HABITAT MANAGEMENT PLAN AREA**

**San Diego County Department of Planning and Land Use**  
**Specific Plan 95-001**

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**SEPTEMBER 2011**



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## **EXECUTIVE SUMMARY**

This report summarizes the results of the monitoring and habitat management activities within the 4S Ranch Specific Plan Area for the 2010–11 monitoring period. The Specific Plan Area includes open space preserve areas in the northerly, central, and southerly sections of the 2,891-acre 4S Ranch development area. The development includes residential neighborhoods, estate lots and a mixed-use district. The monitoring and long term habitat management work for this project is being conducted in accordance with the *4S Ranch Habitat Management Plan* (RMA Consultants, revised September 1999).

A total of approximately 547 acres of open space area comprises the 4S Ranch Specific Plan Area. Of that amount, 312 acres are located in the northern portion of the project, adjacent to the Ralphs Family Ranch Preserve Section. A second open space area totaling 5 acres is located within the center of the project, associated with Artesian Creek, adjacent to Camino Del Norte. This area contains a wetland mitigation site that was completed in July 2006. This area, while part of the overall development open space area, is not technically part of the Habitat Management Plan (HMP) management area, nor part of the Lake Hodges Segment of the County's Multiple Species Conservation Plan (MSCP) Subarea Plan, due to its relative isolation from other major natural preserve areas. This area is managed by the 4S Ranch Master Home Owner Association (HOA). A third open space area totaling 230 acres is located in the southerly portion of the site, within La Jolla Valley, surrounding the Lusardi Creek riparian corridor.

The northerly portion of the open space area is being preserved and managed as a natural habitat area. Two designated trails are located in this area, associated with pipeline corridors to water tanks on the easterly and westerly hillsides.

The southern portion of the open space area includes a portion of Lusardi Creek, two manmade reservoirs, and surrounding habitat. The area includes a wetland mitigation site between the two reservoirs along the Lusardi Creek riparian corridor. The wetland mitigation area encompasses approximately 7.3 acres of land wherein riparian habitat was established on either side of Lusardi Creek. The wetland mitigation area completed its monitoring program in late 2009 and was accepted by the resource agencies in February 2010.

Newland California/4S Kelwood General Partnership has been responsible for the long-term management of the Specific Plan Preserve Sections of 4S Ranch. However, responsibility for the long-term management of the southern and northeastern sections was transitioned to the HOA in July 2011. The southern and eastern portions of the 4S Ranch Specific Plan Area will be managed by the HOA from July 2011 onward. Newland California/4S Kelwood General Partnership will continue to manage the northwestern portion of the 4S Ranch Specific Plan Area

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until they have completed the landscaping in the northern 4S Ranch development area and have deeded that lot to the HOA.

The Ralphs Family is responsible for the Ralphs Family Ranch Preserve section of the project, which encompasses approximately 1,065 acres. Separate reporting for this preserve section is being conducted by the Ralphs Family.

The northerly portion of the Specific Plan Area continues to recover from the Witch Creek Fire that burned this portion of the preserve area on October 20–21, 2007. The vegetation has recovered well from the wildfire and many shrubs have nearly reached their pre-fire stature.

In the southern open space areas surrounding the upper lake, Newland California/4S Kelwood General Partnership is working on dam maintenance activities to replace the outlet structure, as required by the California Division of Safety of Dams (DSOD). Anticipated temporary impacts to the preserve habitats have been fully evaluated and permitted through the County of San Diego and regulatory agencies. The project requires habitat restoration after completion of the dam repairs.

Invasive weed control within the native habitat open space areas is ongoing. Invasive weed control has been prioritized for areas with higher ecological value. For example, maintenance efforts have been focused on the thread-leaved brodiaea (*Brodiaea filifolia*) preserve area in the southwest corner of the preserve, as well as the Lusardi Creek riparian corridor. Weed species observed within the preserve areas that are of primary concern that will require on-going control include artichoke thistle (*Cynara cardunculus*), salt cedar (*Tamarisk* sp.), fennel (*Foeniculum vulgare*), tree tobacco (*Nicotiana glauca*), and gum tree (*Eucalyptus* sp.). Newland California/4S Kelwood G.P. has hired a contractor to control invasive plant species, but due to their pervasive nature, ongoing control efforts will be required.



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## **1.0 PROJECT INFORMATION**

The 4S Ranch development is a 3,525-acre project located within the west-central unincorporated portion of San Diego County, west of Interstate 15 and Rancho Bernardo, and northeast of Rancho Peñasquitos (Figures 1 and 2). Out of the total 3,525 acres within the project boundaries, 634 acres located along the easterly boundary have been under development since 1987 and include commercial/industrial facilities and residential housing.

The remaining 2,891 acres of 4S Ranch have been under development over the last eight years pursuant to a General Plan Amendment and a Specific Plan Amendment (SPA 95-001). The total project is composed of four residential neighborhoods, a mixed-use district, and an estate lot area in the northerly portion of the site known as the “Ralphs Family Ranch.” Environmentally sensitive/constrained areas were preserved throughout the development, including upland habitats and the Artesian Creek and Lusardi Creek riparian/wetland habitat areas which are being preserved in conserved open space, as part of the Specific Plan Area.

Wetland impacts resulting from the 4S Ranch project were mitigated for under permits with the U.S. Army Corps of Engineers (ACOE) and the California Department of Fish and Game (CDFG), in both the Artesian Creek and the Lusardi Creek drainages. Mitigation for wetland impacts was implemented in two phases: the first mitigation phase was implemented within the Artesian Creek development area, Phase 1, which reached the end of the five-year maintenance and monitoring period in April 2006. The implementation of the second phase of the mitigation within the Lusardi Creek development area completed the five-year maintenance and monitoring period in late 2009, and was accepted by the resource agencies in February 2010.

Newland California/4S Kelwood General Partnership has been responsible for the long-term management of the Specific Plan Preserve Sections of 4S Ranch. However, responsibility for the long-term management of the southern and northeastern sections was transitioned to the HOA in July 2011. Newland California/4S Kelwood General Partnership will continue to be responsible for the management of the northwestern portion of the 4S Ranch Specific Plan Area until they have completed the landscaping in the northern 4S Ranch development area and have deeded that lot to the HOA.

Dudek is serving as the biological monitor for the northwestern portion of the 4S Ranch Specific Plan Area on behalf of the owner, Newland California/4S Kelwood General Partnership. The representatives for the project at Dudek are John Minchin (Landscape Architect #2225/Habitat Restoration Specialist) and Andy Thomson (Biologist/Restoration Ecologist). The southern and eastern portions of the 4S Ranch Specific Plan Area will be managed by the HOA from July 2011 onward.

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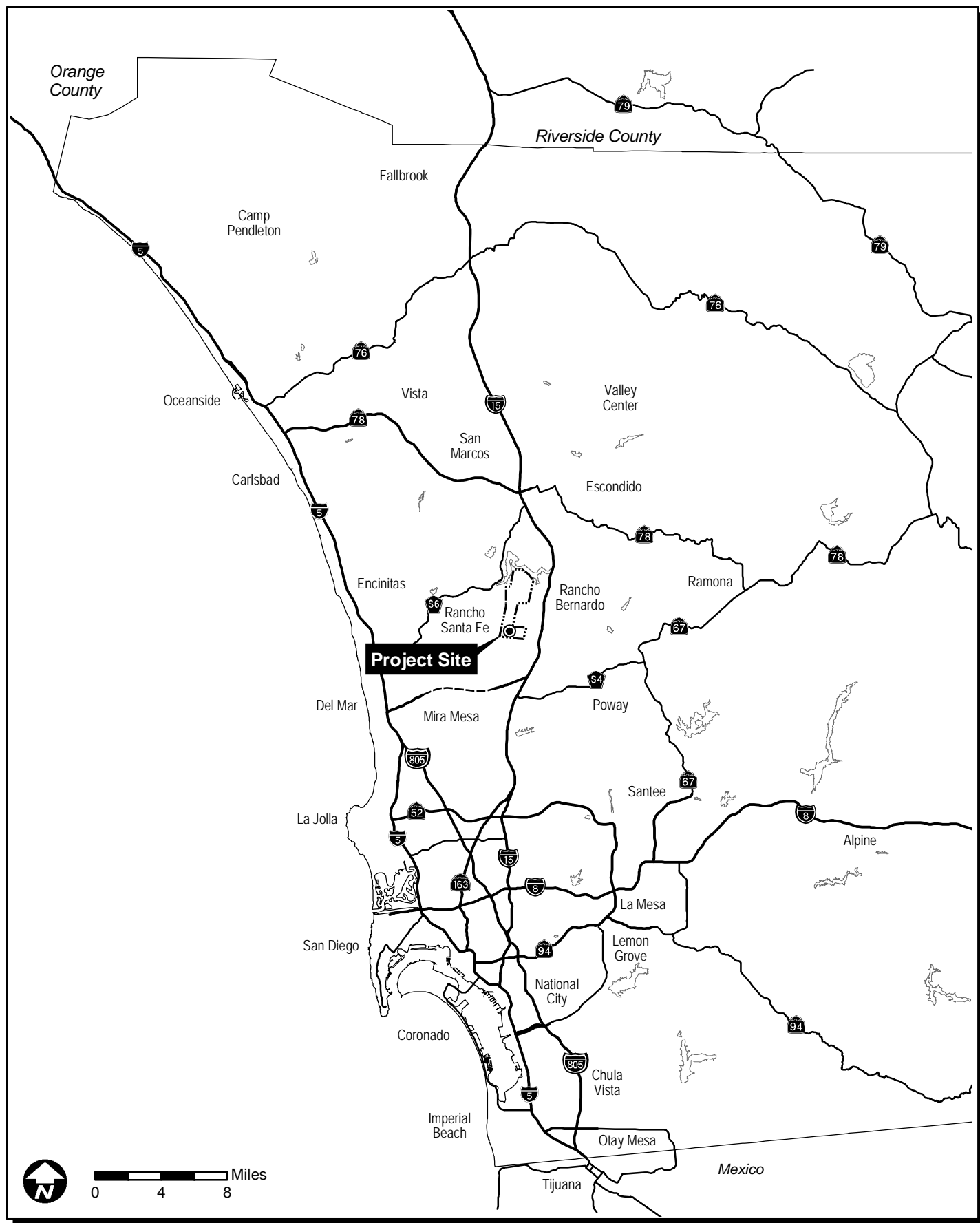
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## **2.0 SITE INFORMATION**

A total of approximately 547 acres of open space area comprise the 4S Ranch Specific Plan Area. Of that amount, 312 acres are located in the northern portion of the project, adjacent to the Ralphs Family Ranch Preserve Section. A second open space area totaling 5 acres is located within the center of the project, associated with Artesian Creek (i.e., part of the overall open space area, but not technically part of the Specific Plan Preserve Section areas). A third open space area totaling 230 acres is located in the southerly portion of the site, within La Jolla Valley, surrounding the Lusardi Creek riparian corridor. Figure 3 shows the overall open space habitat preserve sections and the various habitats/plant communities within the 4S Ranch Specific Plan Area. Figure 4 shows the locations of sensitive species within the open space habitat preserve areas.

The southerly open space portion of the Specific Plan area is located within La Jolla Valley and includes the Lusardi Creek wetland mitigation project area, which is 7.3 acres in size. The mitigation areas are situated south of Dove Canyon Road and Bernardo Center Drive, as shown on Thomas Bros. Map 1169:G5-F5, in San Diego County, California. The sites are now bisected by Carmel Valley Road. The project site is located on the U.S. Geological Survey (USGS) 7.5-minute Escondido quadrangle; T13S, R2W. The Assessor's Parcel Nos. are 312-284-01 and 312-285-01. Elevations on site range from approximately 470 feet above mean sea level (AMSL) to 540 feet AMSL.

Lusardi Creek is a USGS "Blueline Stream," with the headwaters and watershed originating in the Rancho Bernardo area. There are two man-made historic reservoirs on this portion of Lusardi Creek within the project boundaries, which have been preserved. Lusardi Creek is a secondary tributary feeding the San Dieguito River and discharges west of Lake Hodges Dam.



4S Ranch Specific Plan Habitat Management Plan Area - Annual Monitoring Report (2010-11)  
**Regional Map**

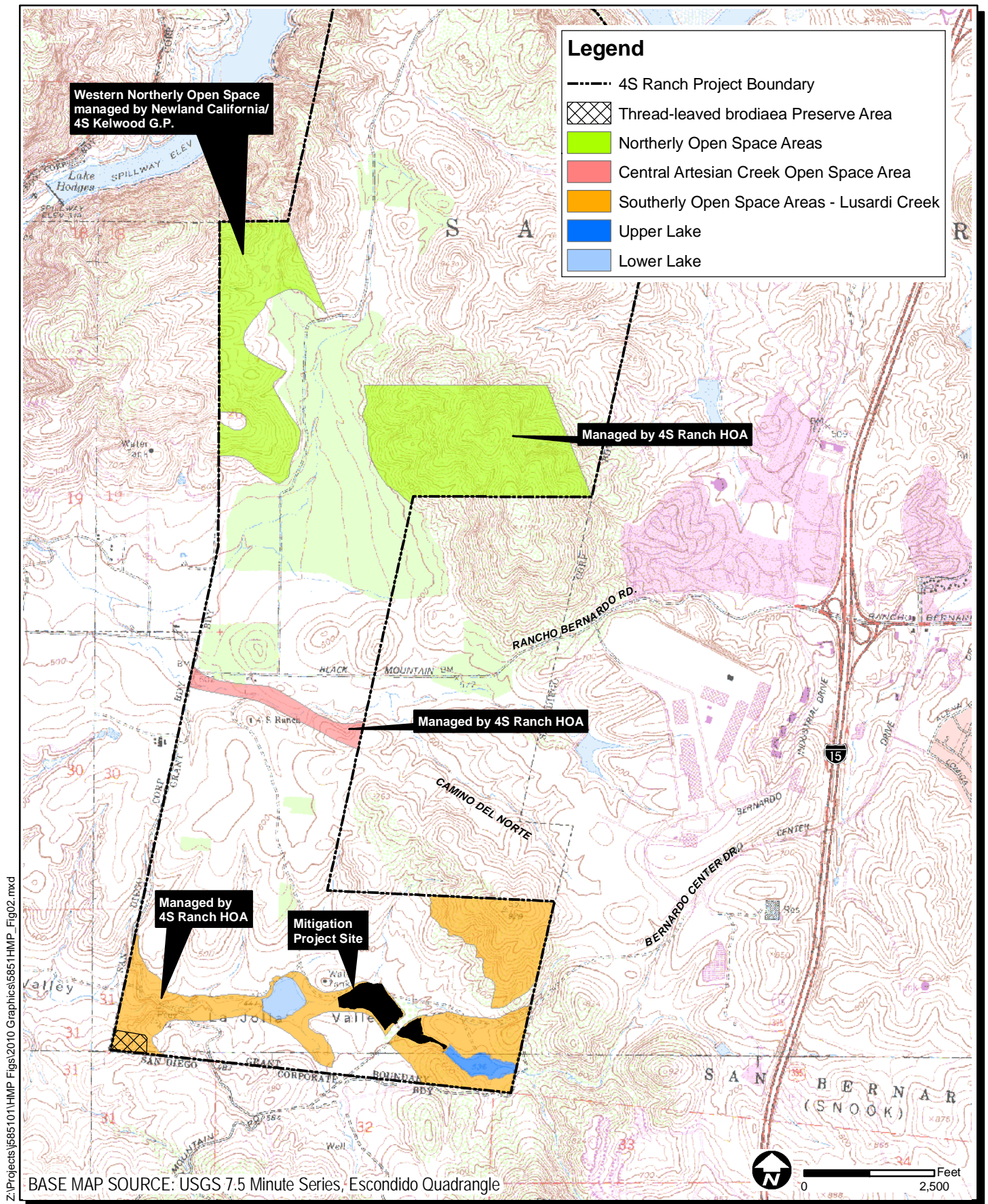
**FIGURE**  
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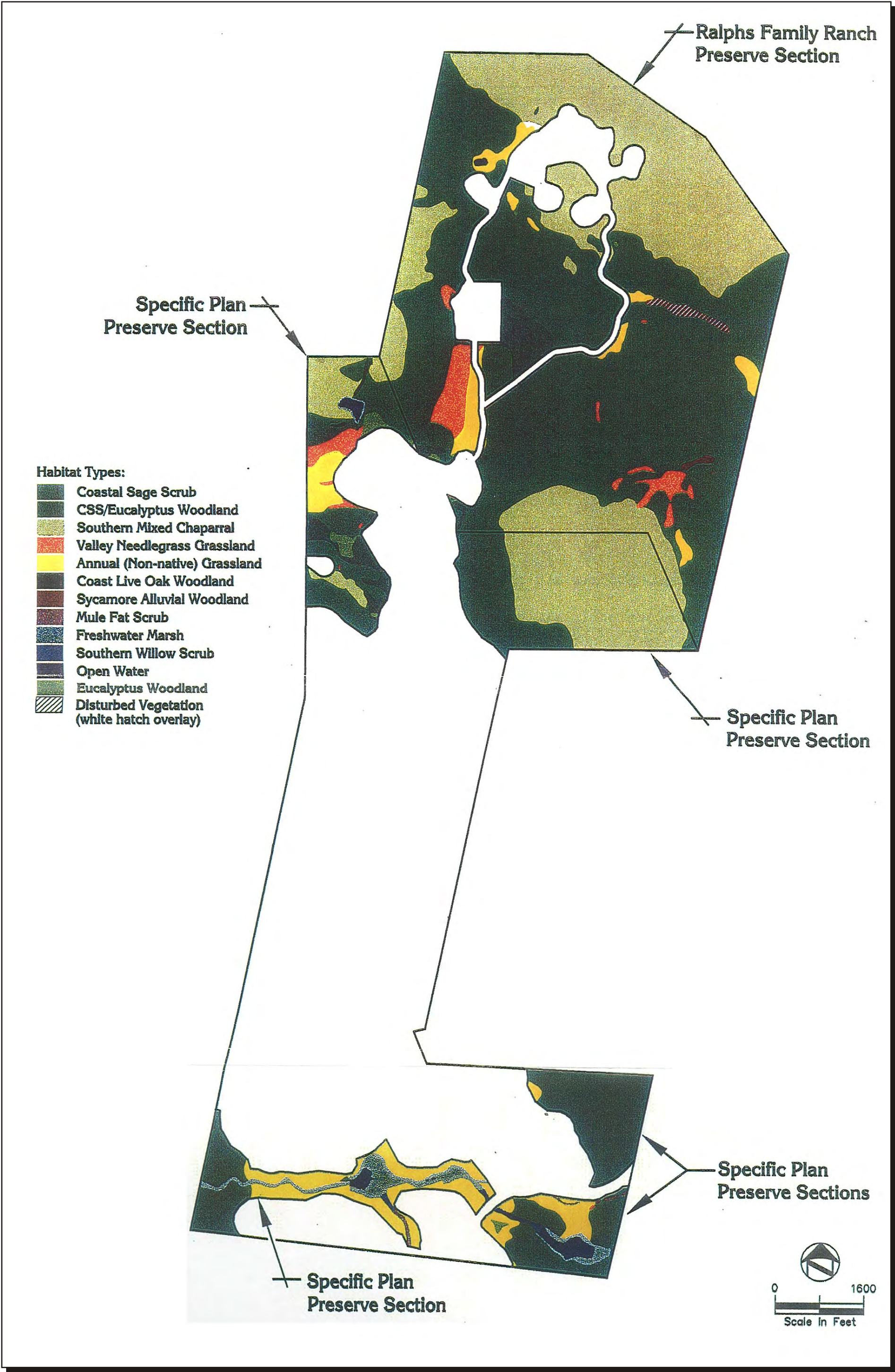
4S Ranch Specific Plan Habitat Management Plan Area - Annual Monitoring Report (2010-11)  
**Vicinity Map**

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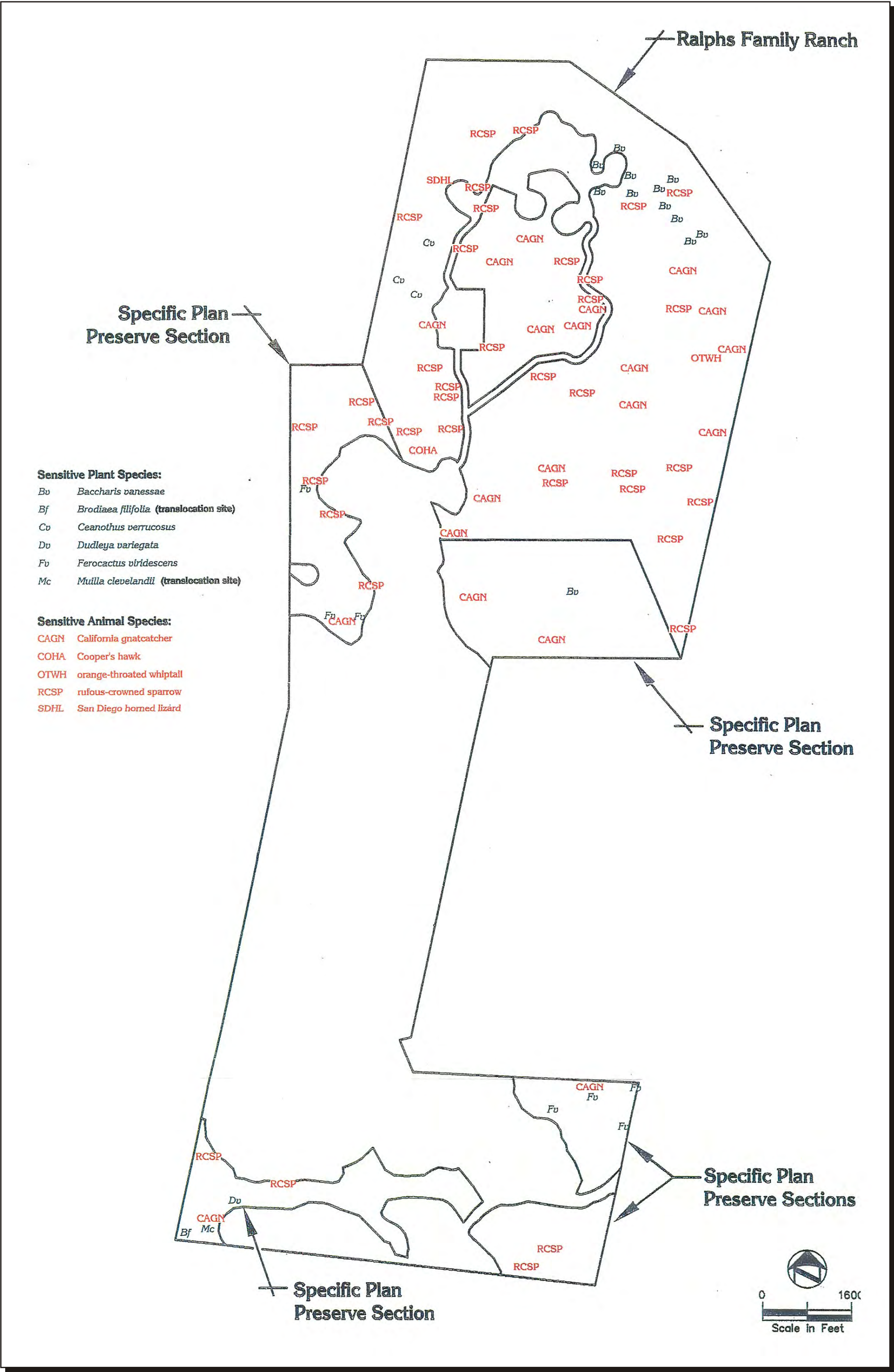


4S Ranch Specific Plan Habitat Management Plan Area - Annual Monitoring Report (2010-11)  
**Overall Open Space Preserve Area Reference Map**

**FIGURE**  
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4S Ranch Specific Plan Habitat Management Plan Area - Annual Monitoring Report (2010-11)  
**Open Space Preserve Area Sensitive Species Locations**

**FIGURE**  
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### **3.0 MONITORING RESULTS**

#### **Monitoring Methods**

Monitoring of the open space area consisted of field monitoring visits conducted periodically throughout the year to provide a general qualitative (i.e., visual) assessment of the open space areas. Management and monitoring visits included qualitative assessments of the open space areas to document the status of the areas and to address various management issues including:

- Protection of the open space areas from unauthorized vehicular access
- Assessments of vandalism
- Unauthorized access by the public
- Maintenance status of established trails
- Status of signage and fencing
- Trash and debris accumulation and removal
- Maintenance of utilities and existing facilities
- Protection of mitigation areas
- Removal of non-native invasive plant species
- Protection of sensitive habitats and species
- Implementation of adaptive management strategies to address changing site conditions.

Monitoring visits were conducted at the following intervals:

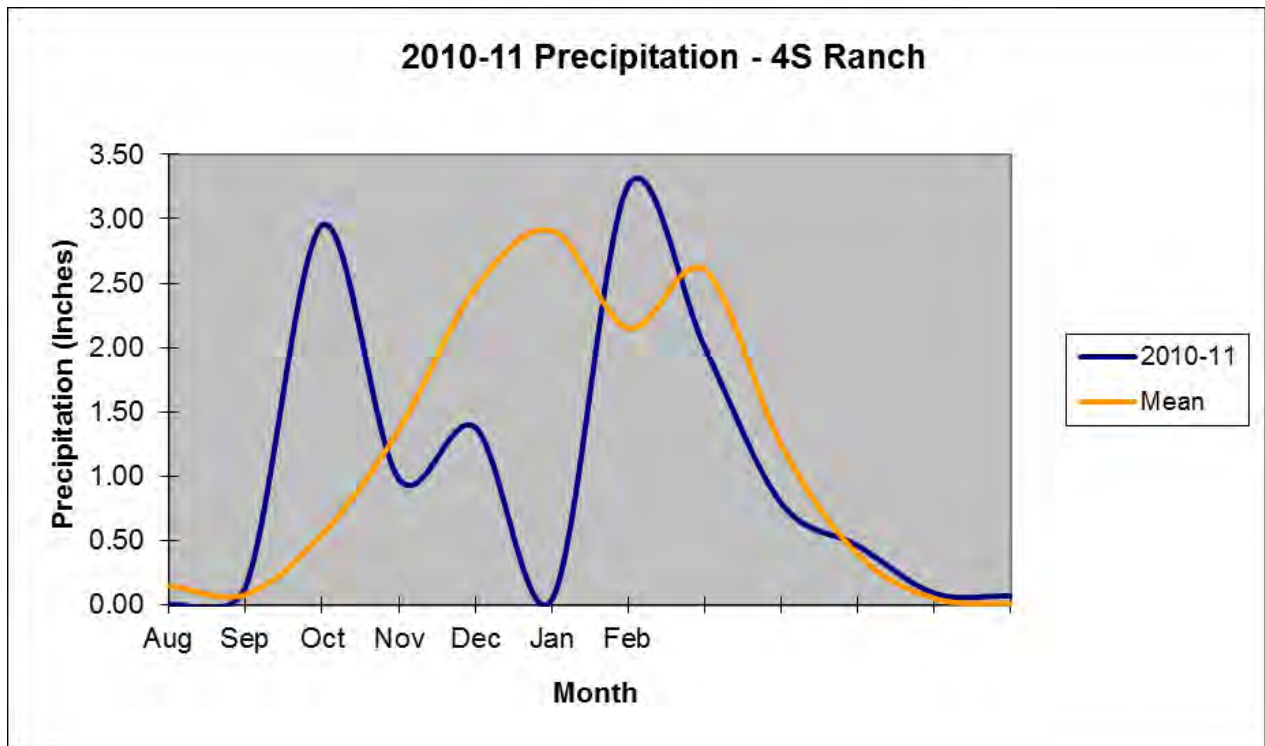
- Dudek monitored the overall open space areas on several occasions as indicated below
  - March 4, 2010: General preserve assessment and site meeting with maintenance contractor
  - April 13, 2010: Monitoring weed control efforts within thread-leaved brodiaea preserve area
  - September 28, 2010: General preserve monitoring and weed prevalence assessment
  - April 19, 2011: General preserve monitoring
  - August 31, 2011: General preserve monitoring in northern portions of preserve.

Representative photographs showing the various open space areas are shown on Figures 5 and 6.

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Precipitation received during 2010-11 was slightly below average overall, with most of the precipitation falling in October and February (CIMIS 2011). The rainfall total for the rainy season (August–July) equaled 12.16 inches (CIMIS 2010), which is below the average annual precipitation amount of 13.95 inches (WRCC 2010).

**Chart 1**  
**2010-11 Precipitation – 4S Ranch**







**Photo 1:**  
View of the northerly preserve area (April 2011)



**Photo 2:** Typical view of the habitat in post-fire recovery (August 2011)



**Photo 3:** Area where there has been trash and debris dumped into preserve (August 2011)



**Photo 4:**  
View of the western portion of the northerly preserve area in need of artichoke thistle control (September 2010)



**Photo 5:**  
View of habitat in the western portion of the southerly preserve area (September 2010)



**Photo 6:** View of the habitat in the thread-leaved brodiaea preserve area (April 2011)



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### Monitoring Results

The general condition of the overall 4S Ranch Specific Plan open space preserve areas during the monitoring period was excellent with some localized exceptions. As described in the 2009 report, the October 2007 Witch Creek Fire had a considerable effect on the character of the vegetation in the northerly portion of the Specific Plan Area, burning most vegetation to the ground. The post-fire vegetation recovery has been excellent since the fire, with almost immediate recovery of annual grasses and forbs and vigorous new growth from trees and shrubs. In general, the vegetation has recovered quickly from the fire helping to stabilize soils and minimize sediment loss.

Weed control efforts were initiated in summer 2009, spring 2010 and again in spring 2011 within the thread-leaved brodiaea preserve area. The primary targeted weed was artichoke thistle (*Cynara cardunculus*), which continues to invade the site from the surrounding fields. Despite the presence of the invasive weeds, thread-leaved brodiaea continues to appear healthy.

There are several species of perennial, invasive weeds that occur in localized areas within the preserve. Observed invasive weeds included artichoke thistle, salt cedar (*Tamarisk* sp.), fennel (*Foeniculum vulgare*), Pampas grass (*Cortaderia selloana*), tree tobacco (*Nicotiana glauca*), palms (*Washingtonia robusta*), gum trees (*Eucalyptus* sp.) and castor bean (*Ricinus communis*).

An area near the water tank in the western portion of the northerly areas has been used for dumping trash and debris. Access into the preserve at this location is from the road that leads to the water tank.

Vegetation clearing associated with the planned dam maintenance project at the upper dam in the southeast portion of the preserve was conducted in summer 2011 in anticipation of project grading. Clearing occurred within the planned limits of project disturbance only, which are fenced with orange construction fencing. Newland California/4S Kelwood General Partnership is working on dam maintenance activities to replace the outlet structure, as required by the California DSOD. Temporary impacts to the preserve habitats have been fully evaluated and permitted through the County of San Diego and regulatory agencies. The project requires habitat restoration after completion of the dam repairs.

### 4.0 SUMMARY OF MAINTENANCE ACTIONS

JMD Landscape was hired in 2009, 2010 and 2011 to control invasive weeds in the southerly preserve area along the Lusardi Creek riparian corridor and within the thread-leaved brodiaea preserve. In summer 2011 JMD also began working on control of artichoke thistle in the western portion of the northerly areas.

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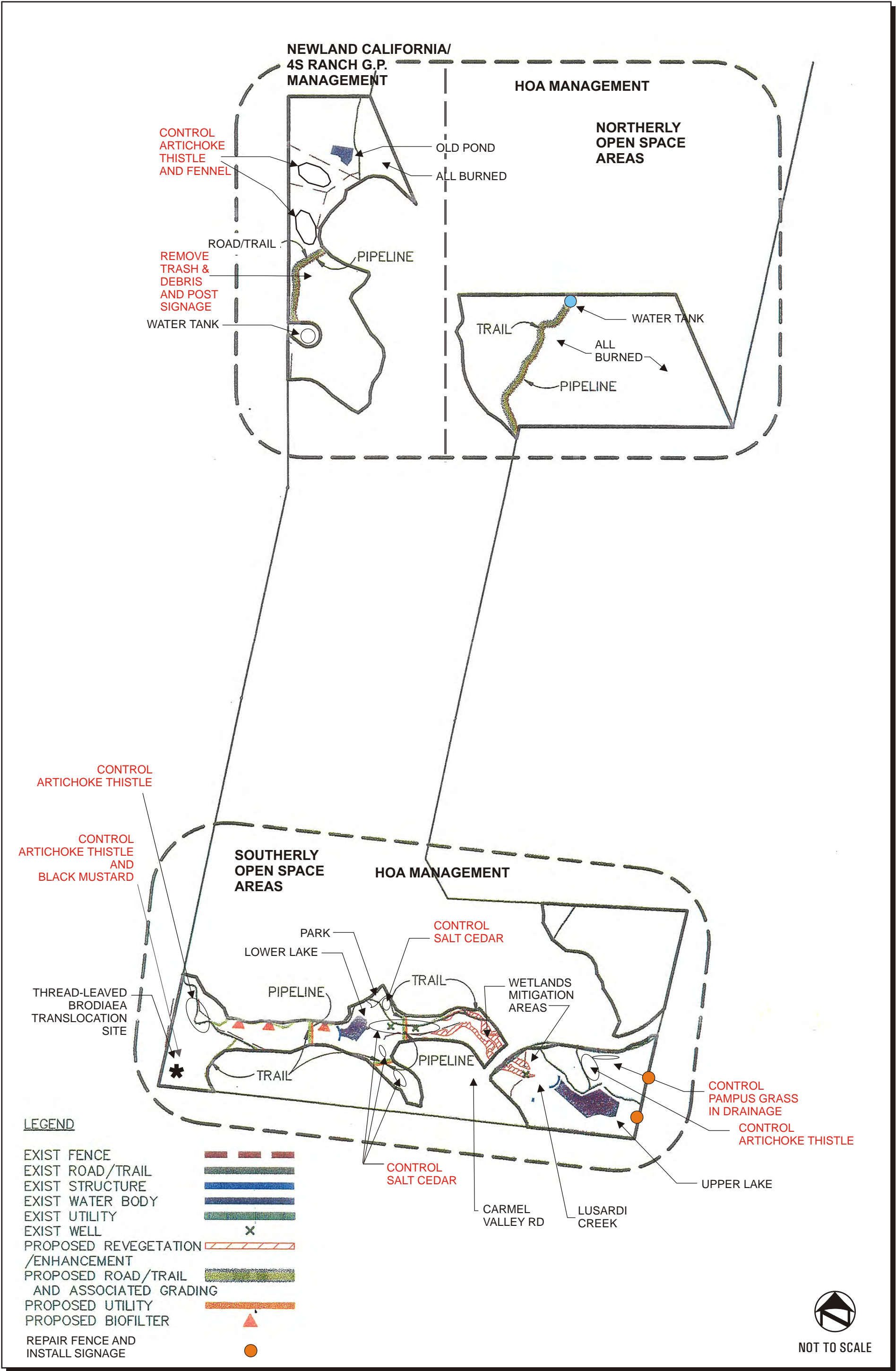
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### **5.0 ACTION STRATEGY FOR THE 2011-12 MONITORING PERIOD**

The maintenance and monitoring obligations for most of the preserve areas have been transferred to the 4S Ranch HOA. For the 2011–12 monitoring period, Dudek will only be monitoring the western portion of the northerly areas. A map with maintenance recommendations is included in Figure 6. The action strategy for the 2011–12 monitoring period includes the following:

1. Address invasive weed problems within the western portion of the northerly open space areas. Specifically, continue to target artichoke thistle, which continues to re-establish within the preserve area. Black mustard (*Brassica nigra*) and fennel are also abundant here and should also be controlled. Due to the presence of sensitive species at this location, it is critical that any maintenance efforts to control weeds in this area are conducted by a qualified, experienced landscape contractor, with the assistance of a biological monitor, to avoid impacts to sensitive species.
2. Monitor for illegal off-road vehicle access problems and install protective fencing and/or barricades and signage where necessary to preclude access
3. Remove debris dumped into the preserve area near the access road to the water tower. Post signage indicating that the area is within a preserve and that unauthorized public access is not allowed
4. Continue to monitor the recovery of the native habitat burned in the northerly open space areas and document overall species presence/recovery.





4S Ranch Specific Plan Habitat Management Plan Area - Annual Monitoring Report (2010-11)  
**Maintenance Work Reference Map**

**FIGURE  
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### **6.0 REFERENCES**

CIMIS (California Irrigation Management Information System) 2011. South Coast Valleys, Escondido Station SPV #153 and Miramar Station #150). Online. Accessed September 28, 2011.

RMA Consultants. 1999. *4S Ranch Habitat Management Plan*. Revised September.

WRCC (Western Regional Climate Center)) 2010. Hodges Dam California Station (#044014). Online. Accessed June 29, 2010.

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