

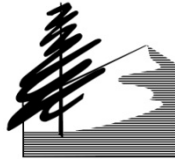
**Whelan Ranch
Habitat Conservation Area
(CNLM No: S007)**

Annual Report
October 2008 - September 2009

Prepared for:

U.S. Fish and Wildlife Service
California Department of Fish and Game
City of Oceanside

Prepared by:



Jessica Vinje
The Center for Natural Lands Management
215 West Ash Street
Fallbrook, CA 92028-2904
(760) 731-7790

December 2009

Table of Contents

I. Introduction	1
II. Capital Improvements.....	4
III. Biological Surveys	4
IV. Habitat Restoration and Maintenance	7
V. Public Service	10
VI. Reporting.....	10
VII. Summary & Discussion	11
VIII. References	11

Table of Figures

Figure 1 - HCA Overview Location	2
Figure 2 - HCA Location.....	3
Figure 3 - Sensitive Animal and Plant Locations - 2009- Whelan Ranch.....	6

Table of Tables

Table 1- Whelan Ranch Sensitive Plants	5
Table 2 – Habitat Conservation Area Threats Summary	9

Table of Appendices

Appendix A - Coastal Sage Scrub Restoration Photographs.....	12
---	-----------

I. Introduction

This report summarizes the management activities carried out on the Whelan Ranch Habitat Conservation Area (HCA) during the fiscal year of October 1, 2008 to September 30, 2009. The tasks and objectives discussed below are those derived from the *Whelan Preserve Five Year Management Plan: 1998-2003* (CNLM 1998), and from the *Whelan Preserve 2008-2009 Annual Workplan* (CNLM 2008a).

The Whelan Ranch HCA is located north of the City of Oceanside golf course, east of the sewage treatment plant and south of Marine Corps Air Base Camp Pendleton in the City of Oceanside, California (Figures 1 and 2). The HCA is just over 123 acres and is comprised of Diegan coastal sage scrub, nonnative grassland and a small amount of riparian vegetation located on the eastern edge of Whelan Lake. The dominant plant community is nonnative grassland as portions of the HCA were graded at one time for development and the HCA was also historically used for cattle grazing. The HCA supports the federally-listed as threatened coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher).

In the summer of 2003, the entire endowment was paid to the Center for Natural Lands Management (Center) for long-term management. Therefore, the Center will not receive any additional funding. Funds are extremely limited, with a 2008-2009 budget of less than \$4,000.

Management at the HCA includes capital improvements, biological surveys, habitat restoration, public services and reporting. Each of these activities and their results are summarized below and are described within this report.

2008-2009 CENTER ACTIVITY SUMMARY

- Protocol United States Fish and Wildlife Service (FWS) gnatcatcher surveys were conducted.
- In 2006, approximately 0.05-acre of coastal sage scrub habitat was restored. The 0.05-acre site was maintained and monitored during the past year.
- Nonnative plants including fennel (*Foeniculum vulgare*), black mustard (*Brassica nigra*), Australian saltbush (*Atriplex semibaccata*), Russian thistle (*Salsola tragus*), and nonnative grasses (*Avena* spp., *Bromus* spp.) were treated with herbicide and/or weed whipped in the 0.05-acre coastal sage scrub restoration area.
- About 5 acres of nonnative grasslands were treated with herbicide, ripped, imprinted with native seed and treated several more times with herbicide for weeds through funding received from the FWS Partner's for Fish and Wildlife (PFW) Grant Program in 2007.
- Another grant application for the FWS PFW Grant Program was prepared in spring 2009 and \$10,000.00 was awarded to the Center for further coastal sage scrub enhancement and restoration.
- A grant application for the Wildlife Habitat Improvement Program (WHIP) through the Natural Resources Conservation Service (NRCS) was prepared to restore approximately 15 acres of coastal sage scrub habitat in areas currently dominated by nonnative

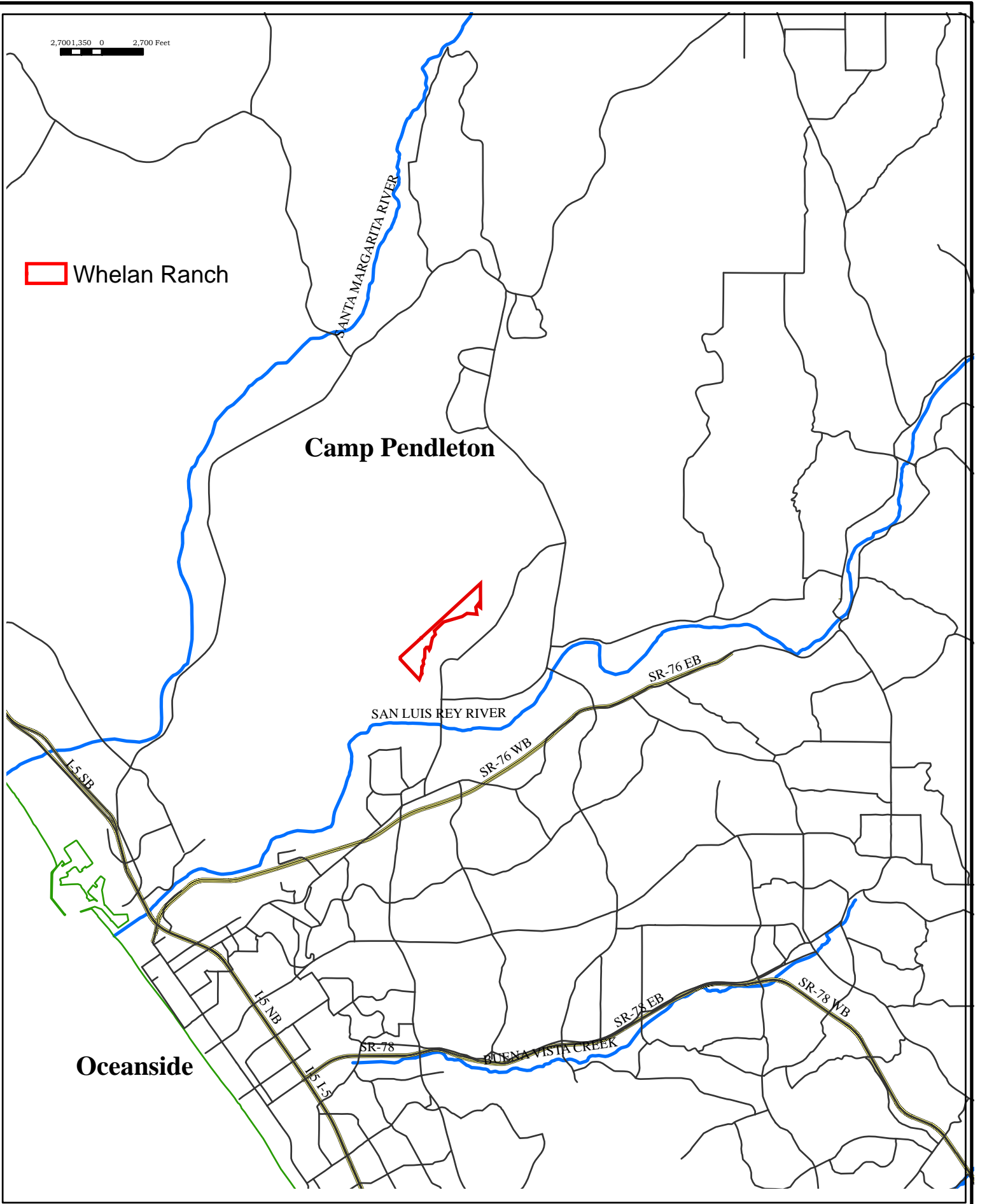


Figure 1
Preserve Vicinity
Whelan Ranch Habitat Conservation Area - Oceanside, CA



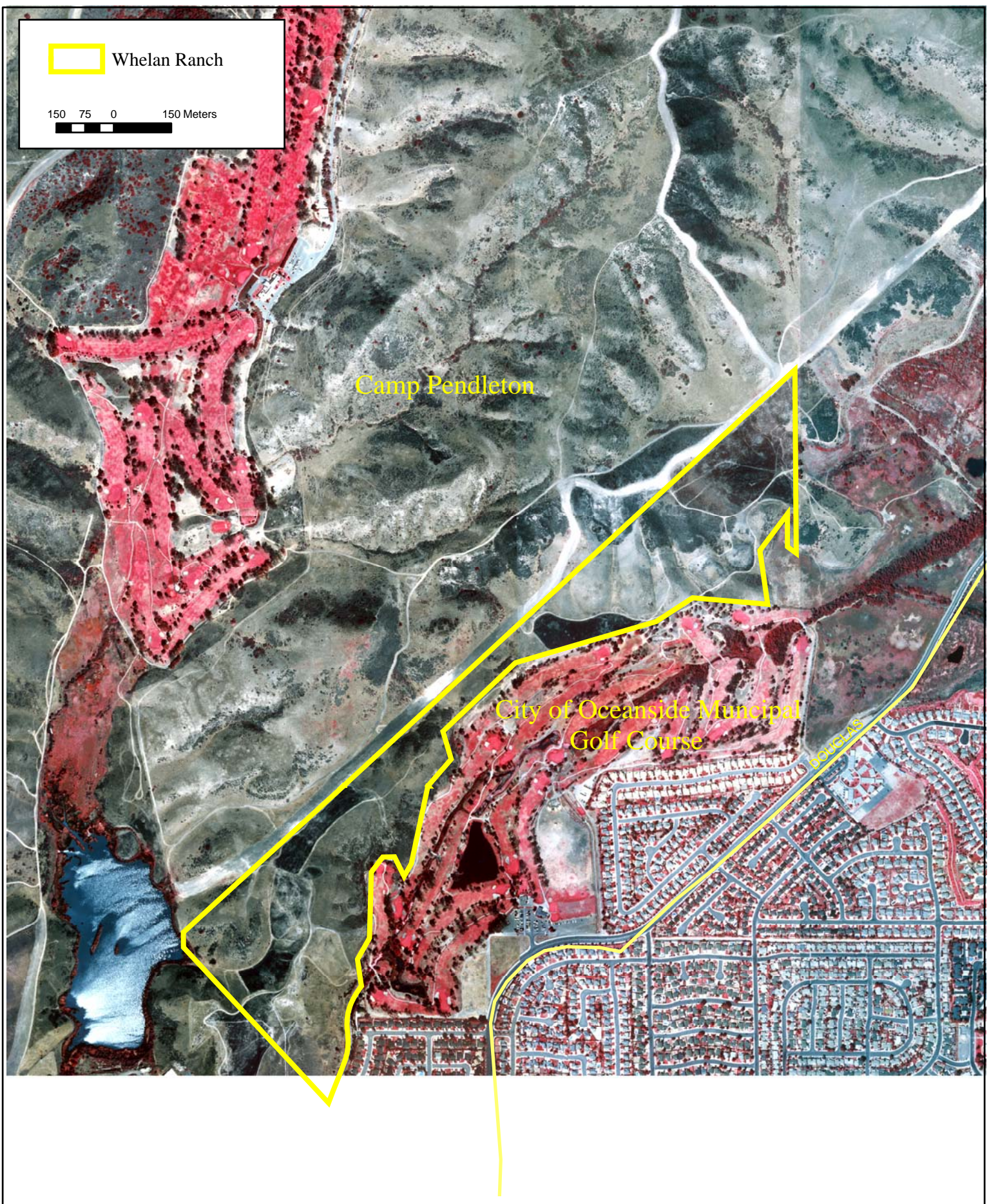


Figure 2
Preserve Location
Whelan Ranch Habitat Conservation Area - Oceanside, CA

- grassland. Approximately \$50,000.00 was awarded to restore the 15 acres and to install raptor perches on the HCA.
- Fuel breaks were mowed and cleared of dead woody vegetation.
- The HCA was patrolled and trash was removed during each patrol.
- Fences were repaired and maintained on the southern boundary of the HCA.

II. Capital Improvements

The Center has installed about 30 signs along the periphery and at main access points to the HCA. The signs state that the area is a habitat conservation area and describes what activities are allowed or prohibited. No new signs were installed this past year as none were removed or vandalized. The existing barbed wire fence located on the southern boundary of the HCA was repaired several times, but no new fence was installed in the HCA.

III. Biological Surveys

The *Five Year Management Plan* (CNLM 1998) outlines the goals of biological monitoring at the HCA. Monitoring includes traversing the HCA to monitor the avian community, focused surveys for the coastal California gnatcatcher, and vegetation community analysis. Monitoring also involves noting other plant and animal species anecdotally during surveys. Due to a limited budget, only a limited set of monitoring activities outlined in the *Management Plan* are being accomplished from year to year.

United States Fish and Wildlife Service Protocol gnatcatcher surveys were conducted this past year.

1. Reptiles

No focused surveys for reptiles were conducted, nor planned, but reptiles were noted during site visits, habitat maintenance activities and regular patrolling of the HCA. Reptiles observed were gopher snake (*Pituophis melanoleucus*), orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), and the southern pacific rattlesnake (*Crotalus viridis helleri*).

2. Mammals

No directed surveys for mammals were conducted, nor planned, but mammals and/or their sign, were noted during site visits. The species observed (or sign observed) included California ground squirrel (*Spermophilus beecheyi*), California mule deer (*Odocoileus hemionus californicus*), cottontail rabbit (*Sylvilagus audubonii*), and coyote (*Canis latrans*).

3. Birds

Gnatcatcher surveys were conducted this past year and three pair of gnatcatcher were located in the HCA (Figure 3). Other sensitive bird species observed during the surveys and HCA related activities included: grasshopper sparrow (*Ammodramus savannarum*), a western burrowing owl (*Athene cunicularia*), and a pair of white-tailed kites. Other bird species observed during the surveys and HCA activities include American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), Bewick's wren (*Thryomanes bewickii*), black phoebe (*Sayornis nigricans semiatra*), bush tit (*Psaltriparus minimus melanurus*), California thrasher (*Toxostoma redivivum*), California towhee (*Pipilo crissalis senicula*), Cassin's kingbird (*Tyrannus vociferans*), cliff swallow (*Petrochelidon pyrrhonota tachina*), common raven (*Corvus corax clarionensis*), common yellowthroat (*Geothlypis trichas*), greater roadrunner (*Geococcyx californianus*), house finch (*Carpodacus mexicanus*), mourning dove (*Zenaida macroura marginella*), red-tailed hawk (*Buteo jamaicensis*), song sparrow (*Passerella melodia*), spotted towhee (*Pipilo maculatus*), turkey vulture (*Cathartes aura meridionalis*), violet-green swallow (*Tachycineta thalassina*), white-crowned sparrow (*Zonotrichia leucophrys*), and wrentit (*Chamaea fasciata*).

4. Invertebrates

The following butterfly species were observed during the gnatcatcher surveys Behr's metalmark (*Apodemia virgulti*), cabbage white (*Pieris rapae*), common ringlet (*Coenonympha tuilla*) mourning cloak (*Nymphalis antiopa*), Pacific orangetip (*Anthocharis sara*), painted lady (*Vanessa cardui*), pygmy blue (*Brephidium exilus*) and Western tiger swallowtail (*Papilio rutulus*).

5. Vegetation Sampling and Plant Surveys

No sensitive plant surveys or vegetation sampling was conducted or planned during this past year; however, a new patch of western dichondra (*Dichondra occidentalis*), was located on the southwestern boundary of the HCA (Figure 3). Table 1 depicts the sensitive plants located thus far in the HCA, the year the plant population was located, the associated population numbers, and the species location.

Table 1- Whelan Ranch Sensitive Plants

Species	Year	Population	Location
Southwestern Spiny Rush (<i>Juncus acutus</i> ssp. <i>leopoldii</i>)	2003	~10	Southwestern edge near Whelan Lake
Western Dichondra (<i>Dichondra occidentalis</i>)	2009	One large patch	In coastal sage scrub patch located on the southwestern edge of the HCA

Legend

- Whelan Ranch Habitat Conservation Area Boundary
- Coastal California Gnatcatcher
- ▲ Grasshopper Sparrow
- Greater Roadrunner
- ◆ Orangethroat Whiptail
- ★ Western Burrowing Owl
- + White-tailed Kite
- ◆ Western Dichondra



Figure 3
Sensitive Animal and Plant Locations - 2009 - Whelan Ranch
Whelan Ranch Habitat Conservation Area, San Diego County, CA



IV. Habitat Restoration and Maintenance

1. Coastal Sage Scrub Restoration

a. 0.05-acre Area

During the 2006-2007 fiscal year, an approximate 0.05-acre area was cleared of all nonnative plants and planted with fifty-three 2 x 8 inch plant bands (Appendix A, Photos 1, 2, 3, and 4). The plant bands consisted of California sage (*Artemisia californica*), purple needle grass (*Nassella pulchra*), deerweed (*Lotus scoparius*), coyote bush (*Baccharis pilularis*), and laurel sumac (*Malosma laurina*). Native plant seed was also hand broadcast and raked into the open spaces between the plants.

The plant bands were hand watered throughout the 2006-2007 and the 2007-2008 fiscal years. The restoration site was also weed whacked and treated with herbicide several times over the past several years to reduce the level of nonnative annual grasses and forbs. Nonnative plants treated in the restoration area included, fennel, black mustard, Australian saltbush, Russian thistle, and nonnative grasses. As of March, 2009, approximately thirty of the plant bands were alive and none of the hand broadcast seed had germinated (it is very likely that the seed had very low viability prior to seeding the restoration site, as the seed was donated to the Center and had been in storage for over 1 year).

The restoration site is considered successful as the majority of the plant bands survived and overall, the site has a low nonnative plant cover. The restoration site blends in very well with the surrounding established coastal sage scrub (see photos). In time, the restoration area will bridge a small gap between two larger patches of coastal sage scrub that support one pair of coastal California gnatcatcher. The Center hopes to increase the coastal sage scrub acreage in the HCA and to eventually restore/create enough habitat to support additional coastal California gnatcatcher pairs.

b. United States Fish and Wildlife Service's Partners for Fish and Wildlife Grant (2007 Application)

During the 2006-2007, Center staff obtained a grant from the FWS PFW Program to restore approximately 5 acres of coastal sage scrub on the northwestern mesa adjacent to the 0.05-acre restoration area. The 5-acre area was dominated primarily by nonnative grasses with an association of nonnative annual forbs comprising the community. During 2007 and 2008, the 5-acre area was treated with Fusilade II and RoundUp Pro. These herbicide treatments were very effective and almost all of the nonnative annual grasses and forbs were killed (Appendix A; Photos 5 through 9).

During this past year, the 5-acre site was ripped and imprinted with native seed. The seed palette was comprised of the following native species: purple needle grass, California sage, California buckwheat (*Eriogonum fasciculatum*), deerweed, fiddleneck (*Amsinckia menziesii* var. *intermedia*), popcorn flower (*Cryptantha intermedia*), and tarweed (*Deinandra fasciculata*). The site was also treated again with Fusilade II and spot treated with RoundUp Pro. Additionally

nonnative plants, such as black mustard (*Brassica nigra*) and Saharan mustard (*Brassica tournefortii*), were hand pulled, weed whipped, or dug out of the ground using a shovel.

The imprinted annual seed sprouted vigorously and quickly dominated the 5-acre site, except for an approximate 1-acre area that received too high a dosage of Fusilade II, thus killing all native sprouting annual plants (Appendix A; Photo 10). The contractor that applied the Fusilade II has agreed to replant the 1-acre area at no cost to the Center. This planting will occur in Fall 2009. The remainder of the site supported a thick cover of annual plants, primarily comprised of popcorn flower and the fiddle neck (Appendix A; Photos 11 through 15). The perennial plants, including California sage and California buckwheat did not sprout as anticipated. This likely occurred because the annual plants outcompeted the perennial seedlings. It is possible, based on discussions with restoration experts that the perennial plants will sprout this upcoming year (Winter-Spring 2010).

Many native plants were observed in the restoration site that were not observed prior to the restoration activities. Additionally, a new plant community now exists in the area that was once dominated by nonnative grasses. Native annual species observed included: miniature lupine (*Lupinus bicolor*), shining peppergrass (*Lepidium nitidum* var. *nitidum*), plantain (*Plantago erecta*), pygmy weed (*Crassula connata*), redmaids (*Calandrinia ciliata*), doveweed (*Croton setigerus*), coast deerweed (*Lotus strigosus*), and owls clover (*Castilleja exserta*). Perennial seedlings located included coyote bush, California sage, California buckwheat and deerweed, although their cover contribution was extremely low.

c. Natural Resources Conservation Service Wildlife Habitat Conservation Program and the United States Fish and Wildlife Service's Partners for Fish and Wildlife Joint Grant (2009 Application)

During the spring of this past year, CNLM prepared a joint coastal sage scrub restoration grant application for the NRCS WHIP and FWS PFW Program. The proposal is to restore approximately 15 acres adjacent to the 5-acre restoration site and to enhance the 5-acre restoration site.

2. Fuel Break Mowing and Brush Removal

The fuel break was mowed this past year, as is done every year and brush was removed and nonnative annual grasses and forbs were weed whipped in the stretch of habitat located in between a brow ditch and our fence line on the southern portion of the HCA. Refer to the 2007-2008 annual report for a detailed description and photographs of this fuel zone (CNLM 2008b).

3. HCA Threats

In 2008, the Center developed an HCA threats table (Table 2). This table lists, describes and discusses management actions for all potential threats encountered in the HCA. The threats remain unchanged at this time, except that the level of nonnative grasses has been slightly reduced with the implementation of the restoration project discussed in Sections 1a. and 1b.

Table 2 – Habitat Conservation Area Threats Summary

Threats to the HCA	Location	Size or Severity	Management Actions during 2008-2009	Future Planned Actions
Weeds				
Australian Saltbush (<i>Atriplex semibaccata</i>) M (G, CSS, F)	Throughout the HCA	Severity is low	Individuals treated in and adjacent to the CSS restoration areas	Continue to treat individuals as they appear in and adjacent to the CSS restoration areas
Fennel (<i>Foeniculum vulgare</i>) H (G, CSS, F)	Throughout the HCA	Very large; thousands of plants located on the HCA	Individuals treated in and adjacent to the CSS restoration areas	Treat all known individuals in the CSS restoration areas and adjacent to these restoration areas
Nonnative Forbs: Black Mustard (<i>Brassica nigra</i>) M; Tocalote (<i>Centaurea melitensis</i>) M; Mustard (<i>Hirschfeldia incana</i>) L; wild radish (<i>Raphanus sativus</i>) L; and other nonnative forbs to a lesser degree (G, CSS, F)	Throughout the HCA	Severity is high; acreage unknown. Mixed in with nonnative grassland acreage	Individuals treated in and adjacent to the CSS restoration areas	Use seed imprinter to seed CSS species into the 15 acre area and apply herbicide applications to nonnative forbs as they return
Nonnative Annual Grasses: Rip-gut Brome (<i>Bromus diandrus</i>) M, Red Brome (<i>Bromus madritensis</i> ssp. <i>rubens</i>) H, Soft-chess Brome (<i>Bromus hordeaceus</i>) L, wild oats (<i>Avena fatua</i> and <i>A. barbata</i>) M, and other nonnative grasses to a lesser degree (G, CSS, F)	Throughout the HCA	Severity is high	Approximately 5 acres treated with two herbicide applications	Use seed imprinter to seed CSS species into the 15 acre area and apply herbicide applications to nonnative grasses as they return
Rose Clover (<i>Trifolium hirtum</i>) M (CSS, G, F)	Located in the furthest southwestern CSS vegetation patch	Severity is low	None taken	None planned at this time
Russian Thistle (<i>Salsola spp</i>) L (G, CSS, F)	Throughout the HCA	Severity is low	Individuals treated in and adjacent to the CSS restoration areas	Individuals will be treated in and adjacent to the CSS restoration areas
Saltcedar (<i>Tamarix spp.</i>) H (R)	Northwestern corner of Whelan Lake	Several large trees	None taken	Cut with a chainsaw and stump spray
Tree tobacco (<i>Nicotiana glauca</i>) M (G, CSS, F)	Throughout the HCA, but primarily in the middle of the HCA	Hundreds occur throughout the HCA	None taken	Cut and stump spray where found, disallow seed production
Other	Unwanted trespass and vandalism	Severity is low	Repaired existing fencing	Continue to repair existing fencing and install new fences in strategic locations

H, M, L refer to California Invasive Plant Council rankings, and potential severity of plants, if present. H=high, M=moderate, L=limited. Letters in parentheses represent what habitats these invasive plants threaten in the HCA: G= native grassland, R=riparian, CSS=coastal sage scrub, F= native forb vegetation associations

- **High** – These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.
- **Moderate** – These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.
- **Limited** – These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic

V. Public Service

Public service activities have mostly centered on patrolling to assess any illegal trespass or dumping. The entire HCA is being patrolled approximately every two months, usually during other site activities. During the year, no major issues were noted or observed in the HCA. Only a very small amount of trash was removed and no trespass was observed.

VI. Reporting

Reporting activities include report writing, all data analysis, geographic information system (GIS) data management, meetings and regional coordination, and photo documentation activities.

Annual Work Plan. An annual work plan and budget for the upcoming fiscal year was prepared and submitted to the City of Oceanside and the wildlife agencies in October of 2009.

Annual Report. This report represents the eleventh annual report for the HCA and will be submitted to the City of Oceanside and the wildlife agencies.

Management Plan. Due to a lack of funds during the last six or so years, the management plan has not been revised since 1998. CNLM intended to prepare an updated management plan this past year, but due to a steep decrease in our endowments associated with the economic recession, the management plan was not revised. CNLM is not able to predict when the management plan will be revised.

Photo documentation stations. Permanent photo documentation stations were established during the 2003 fiscal year. During 2002-2003 a number of photographs were taken to document site condition, both at the photo stations and other areas of the HCA. These photo viewpoints were updated in 2005-2006. No funds are available to update these photo viewpoints; however, photos will be taken this upcoming year during HCA activities.

Finally, the Preserve manager has maintained all necessary agency permits to allow the continued monitoring of the HCA's biota.

Expenditures for this past year were \$8,000 from a planned budget of \$5,954. We went overbudget as we had to spend almost \$1,000 to finally record a Conservation Easement in favor of the California Department of Fish and Game and about \$1,000 to write a grant (for which we received \$60,000). The total funds available as of August 31, 2009 are \$114,824. As of just a year ago, the endowment was keeping up with inflation (Table 3). However, the endowment has declined in the last year as a result of the current financial crisis in the United States. The Center is working at cutting budgets to ensure that there will be sufficient funds for future management.

Table 3 - Endowment Status

Project	Inception Date	Original Endowment	Endowment as of 4/30/07	Endowment as of 8/31/09	Total Preserve Funds	Inflation Adjusted Endowment as of 8/31/09
Whelan	12/1998	\$122,872	\$155,339	\$114,824	\$114,824	\$151,959

VII. Summary & Discussion

This years management at the Whelan was successful at protecting the HCA from human encroachment, current and ongoing coastal sage scrub restoration, protecting the HCA and homeowners from fire, and developing a better understanding of the HCA and its regional context. HCA management in the upcoming year will be similar to the previous year, with the final implementation of the coastal sage scrub restoration. A detailed work plan for the upcoming fiscal year has been developed for this purpose.

VIII. References

CNLM 2008a. Whelan Habitat Conservation Area Annual Work Plan October 2008-September 2009. Center for Natural Lands Management. October 2008.

CNLM 2008b. Whelan Ranch Habitat Conservation Area Annual Report October 2007 – September 2008. December 2008.

CNLM 1998. Whelan Ranch Mitigation Bank Five-Year Management Plan. Center for Natural Lands Management. August 1998.

Appendix A - Coastal Sage Scrub Restoration Photographs



Photograph 1: 0.05-acre restoration area prior to restoration.



Photograph 2: 0.05-acre restoration area after plant band installation.



Photograph 3: 0.05-acre restoration area with plant band growth.



Photograph 4: 0.05-acre restoration area with established coastal sage scrub plants.



Photograph 5: 5-acre Restoration Area - after Fusilade application, looking southwest.



Photograph 6: 5-acre Restoration Area - after RoundUp Pro application, looking southwest.



Photograph 7: 5-acre Restoration Area - after Fusilade application, looking west.



Photograph 8: 5-acre Restoration Area - After RoundUp Pro application, looking west.



Photograph 9: 5-acre Restoration Area - After RoundUp Pro application and imprinting of native seed, looking west, different location.



Photograph 10: 5-acre Restoration Area - The left-hand side of the photograph depicts the area where Fusilade II was applied correctly and the right-hand side of the photograph depicts where too high of a concentration of Fusilade II was applied to the restoration site.



Photograph 11: 5-acre Restoration Area - Dominance of fiddle neck (*Amsinckia menziesii* var. *intermedia*) at the restoration site.



Photograph 12: 5-acre Restoration Area - The left-hand side of the photograph depicts where restoration did not occur (site conditions without restoration efforts dominated by nonnative grasses) and the right-hand side of the photograph depicts where restoration occurred (herbicide application, ripping, and imprinting with site dominated by native annuals).



Photograph 13: 5-acre Restoration Area - The site conditions in June, 2009. The site is dominated by tarweed (*Deinandra fasciculata*).



Photograph 14: 5-acre Restoration Area - Looking at the restoration site from the south. Yellow patch of tarweed (*Deinandra fasciculata*) is the restoration site. All other areas are dominated by nonnative grasses.



Photograph 15: 5-acre Restoration Area - Contractor crew digging out black mustard (*Brassica nigra*) using shovels.