

Annual Report

City of Carlsbad Habitat Management Plan

Year 5, November 2008 – October 2009



Prepared for:


CITY OF
CARLSBAD
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December 31, 2009
Revised April 9, 2010

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I certify that, to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of this report, the information submitted is a true, and accurate representation of the information currently available.

City of Carlsbad Planning Director

Date

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Acronyms and Definitions

Annual Reports – Preserve-specific annual reports, which summarize management and monitoring activities, threats, and monitoring results, are due in November of every year. Pre-HMP preserves are generally not required to prepare annual reports unless stipulated in previously negotiated agreements with the City and/or Wildlife Agencies. HMP-wide annual reports (e.g., the current report) are due to the Wildlife Agencies in December of every year. HMP annual reports summarize gains and losses in the HMP preserve system, current status of individual preserves and species, management and monitoring activities, etc. Every third year, the HMP annual report includes an analysis of species monitoring data. The latest three-year report was prepared as part of the 2007/2008 HMP annual report.

ASMD – Area Specific Management Directive.

BLF – Batiquitos Lagoon Foundation

California Gnatcatcher Core Area – An area identified in the MHCP that is considered critical to the recovery of the coastal California gnatcatcher. Approximately 500 acres of core habitat must be conserved by the MHCP jurisdictions as a condition of coverage for gnatcatcher. Although the core area is located outside of the City of Carlsbad, the City is responsible for 307.6 acres.

Caltrans – California Department of Transportation. Caltrans is responsible for the design, construction, maintenance, and operation of the California State Highway System and Interstate Highway segments within the state's boundaries.

City – City of Carlsbad.

CDFG – California Department of Fish and Game.

CNDDDB – California Natural Diversity Database.

CNLM – Center for Natural Lands Management.

Compliance Monitoring – Monitoring to determine if the HMP is being properly implemented pursuant to the Implementing Agreement (IA) and state and federal take authorizations/permits.

Conservation Easement (as defined in California Civil Code Section 815.1) – Any limitation in a deed, will, or other instrument in the form of an easement, restriction, covenant, or condition, which is or has been executed by or on behalf of the owner of the land subject to such easement and is binding upon successive owners of such land, and the purpose of which is to retain land predominantly in its natural, scenic, historical, agricultural, forested, or open-space condition.

Critical Location – An area that must be conserved substantially for a particular species to be adequately conserved by the MHCP. Critical locations often coincide with major populations, but not all major populations are considered critical.

Edge Effects – Impacts to natural open space resulting from adjacent, contrasting environments, such as developed or disturbed land. When an edge is created, the natural ecosystem is affected for some distance in from the edge.

Effectiveness Monitoring – Monitoring habitat and species to determine if the HMP is protecting sensitive biological resources as predicted.

EMP – SANDAG’s TransNet Environmental Mitigation Program, a funding allocation category for the costs to mitigate habitat impacts for regional transportation projects. Funding grants from this program may be used for habitat acquisition, management, and monitoring activities as needed to help implement the Multiple Habitat Conservation Program (MHCP).

ESA – Endangered Species Act.

Existing Hardline Areas – Natural habitat open space areas, such as Ecological Reserves and Dawson-Los Monos Reserve that were preserved prior to final approval of the HMP.

FPA – Focused Planning Area.

GIS – Geographic Information System.

Habitrak – A GIS-based tool that was developed for habitat accounting. The tool calculates the acreage, type, and location of vegetation communities that are gained (conserved), or lost (impacted) from the HMP planning area.

HCC – Helix Community Conservancy. Update: HCC changed its name to the San Diego Habitat Conservancy in February of 2009.

HCP – Habitat Conservation Plan.

HMP – Habitat Management Plan; serves as the MHCP Subarea Plan for the City.

HOA – Home Owners’ Association

IA – Implementing Agreement. The legal agreement between the City of Carlsbad and the Wildlife Agencies that ensures implementation of the Carlsbad Habitat Management Plan (HMP), binds each of the parties to perform the obligations, responsibilities, and tasks assigned, and provides remedies and recourse should any of the parties fail to perform.

Landowner – The landowner owns the land in fee-title. The landowner has the ultimate responsibility to ensure that preserve management is secured prior to habitat impacts. Often, the management responsibility is contracted to a third party.

LFMZ – Local Facility Management Zone.

Major Population – A population considered sufficiently large to be self-sustaining with a minimum of active or intensive management intervention (especially for plants) or that at least supports enough breeding individuals to contribute reliably to the overall metapopulation stability of the species (especially for animals). Also includes smaller populations that are considered important to long-term species survival.

Management Unit – Groupings of adjacent or nearby preserve parcels that have similar management needs.

MHCP – Multiple Habitat Conservation Program.

NCCP – Natural Community Conservation Planning Program.

Non-wasting Endowment – An endowment with sufficient principal such that, through investment returns, it will provide for the set up costs and management/monitoring of a preserve in perpetuity. Furthermore, the endowment is designed to increase in value over time in order for the generated revenues to increase, and thus keep pace with inflation. Pre-HMP preserves generally did not require endowments to fund management, unless specified in a previously negotiated agreement with the City and/or Wildlife Agencies.

OSMP – Open Space Management Plan, which serves as the Preserve Management and Monitoring Plan, which is referenced in Section 12.3 of the Implementing Agreement.

PAR – Property Analysis Record, a type of cost analysis conducted to estimate the cost of a specific preserve in perpetuity. It is based on user-defined parameters, allows an objective cost/benefit analysis for each line item, and adjusts for inflation.

PMP – Area-specific Preserve Management Plan, the permanent management plan developed for a particular preserve within the Preserve System. The City has contracted Center for Natural Lands Management to develop a single PMP for all City-owned preserves; however, this PMP addresses each preserve individually.

Preserve – Land conserved with a conservation easement, restrictive covenant, deed restriction or transfer of fee title to the City or California Department of Fish and Game that is being managed to HMP and MHCP standards.

Preserve Manager – The entity responsible for monitoring and managing the preserve. The majority of preserve lands are owned/managed by the City, CDFG, CNLM, or private

Homeowner's Associations (HOAs). Pursuant to State due-diligence legislation that took effect January of 2007, preserve managers must be certified by either the City or CDFG before they can begin managing lands in the City.

Priority Species – Species that have site-specific permit conditions, which require populations to be tracked individually through GIS.

Proposed Hardline Areas – Areas identified in the HMP as natural habitat open space that were proposed for permanent conservation and perpetual management during the design phase of development projects but not completed prior to final approval of the HMP.

SANDAG – San Diego Association of Governments. SANDAG is the San Diego region's primary public planning, transportation, transit construction, and research agency, providing the public forum for regional policy decisions about growth, transportation planning and transit construction, environmental management, housing, open space, energy, public safety, and binational topics.

Standards Areas – Areas that were included in the MHCP Focused Planning Area (i.e., considered high priority for inclusion into the Preserve System), but for which projects had not been proposed prior to HMP approval. Because potential protected habitat areas had not been delineated, a set of zone-specific conservation standards were established as a condition of future project approval.

TAIC – Technology Associates International Corporation.

Take – As defined in the federal Endangered Species Act; to harm, harass, pursue, hunt, shoot, wound, kill, trap, capture, or collect a listed species or attempt to do so.

TransNet - the local half-cent sales tax for transportation improvements first approved by the voters in 1988 and extended in 2004. The Environmental Mitigation Program is a component of TransNet that will fund habitat related environmental mitigation activities required to implement projects identified in the Regional Transportation Plan, including a funding allocation for habitat acquisition, management, and monitoring activities as needed to help implement the Multiple Species Conservation Program (MSCP) and the Multiple Habitat Conservation Program (MHCP).

USFWS – U.S. Fish and Wildlife Service.

Wildlife Agencies – Term used collectively for the California Department of Fish and Game and U.S. Fish and Wildlife Service.

Executive Summary

This is the fifth annual HMP summary report, covering the period of November 1, 2008 to October 31, 2009. This report summarizes the preserve status, implementation activities, and preserve gains and losses that have occurred during the current reporting period. Highlights of HMP activities are summarized below.

Current Status of Preserves

During the reporting period, all City-owned properties previously categorized as Proposed Hardline in the HMP became Existing Hardline when the contract with the Center for Natural Lands Management (CNLM) for permanent management was finalized (December 2008). In addition, the Wildlife Conservation Board authorized the California Department of Fish and Game (CDFG) to take on management of five bankruptcy properties in Carlsbad previously owned and managed by The Environmental Trust (TET). Quitclaim deed documentation is expected to be finalized in early 2010. The City continues to work towards acquiring permanent management for other unmanaged properties, including Raceway and Bressi Ranch.

City Mitigation Parcel (Lake Calavera Preserve)

No activity during the reporting period; 183.8 credits remaining.

Carlsbad Gnatcatcher Core Area Obligation

No activity during the reporting period.

Land Acquisitions

No land acquisitions were made inside of the HMP; however, the Mariner's Cove property was acquired outside of the HMP. This property, located on the north shore of Agua Hedionda Lagoon, consists of 11.4 acres of coastal sage scrub and non-native grasslands. This property was purchased by Caltrans through SANDAG's TransNet Environmental Mitigation Program.

Habitat Gains and Losses

Approximately 498.1 acres of habitat were gained inside the HMP during the reporting year. This corresponds to all City-owned properties that were previously classified as Proposed Hardline in the HMP. No habitat losses were incurred in the preserve system. Habitat gain *outside* of the HMP consisted of 11.4 acres of coastal sage scrub and non-native grasslands as described above. Habitat losses outside of the HMP included 6.35 acres of nonnative grassland, and 0.75 acre of disturbed habitat. These losses were mitigated through *in-lieu* mitigation fees, and are tracked through the mitigation fee program (Section 3.1.2).

To date, cumulative habitat gains and losses inside the Preserve are 5,821 acres and 169 acres, respectively (Table 7). This represents 90% (5,821/6,478 acres) of the target acreage for the HMP Preserve, not counting the Gnatcatcher Core Area. These cumulative gains and losses differ from those previously reported due to adjustments made in the Habittrak reporting system as explained below.

Revisions to Habittrak

An accuracy check was conducted to ensure that all projects were entered into Habittrak correctly, and to verify project information. Based on the results of this assessment, several corrections were made, which are summarized below.

- Carlsbad Highlands Ecological Reserve. Three parcels that were purchased in 2001 were added to Habittrak, resulting in an increase of 101.6 acres.
- Carlsbad Municipal Golf Course (The Crossings). The date of gain was changed from Year 1 to Year 5; boundary corrections resulted in an additional 13.57 acres.
- Existing Hardline (baseline). Boundary corrections resulted in an increase of 0.77 acre.
- Redeemer. There was no habitat gain from this project; 0.77 acre was removed.
- Robertson Ranch East. Boundary correction resulted in a reduction of 0.32 acre.
- Robertson Ranch West. One parcel was added, resulting in an increase of 35.47 acres. This gain occurred in Year 4.
- Terraces at Sunny Creek. Boundary correction resulted in a reduction of 27.89 acres.

Rough Step Preserve Assembly

The rough step policy, which requires that development (losses) occur in rough step with land conservation (gains), is built into the City's project permitting process. For projects within the HMP, the City requires that the associated open space (impact mitigation) be conserved prior to issuing a grading permit (habitat impact).

Regulatory Compliance

The City is in compliance with the terms and conditions of the Implementing Agreement, NCCP take authorization/permit, and federal ESA section 10(a)(1)(B) take authorization/permit, and HMP zone-specific standards, as summarized in Tables 9 – 12 in the body of the report.

Other Implementation Activities

Other implementation activities conducted during the year included finalization of guidelines for restoration and preserve management, numerous public outreach activities, and the acquisition of a grant from SANDAG's TransNet Environmental Mitigation

Program (EMP) for preserve enhancement and access control for preserve areas owned by the City of Carlsbad and CDFG in the Lake Calavera area.

Management

Management activities conducted by CNLM this year included evaluation and treatment of invasive plant species, enforcement patrols, installation of signs and kiosks, participation in volunteer events, and coordination with police and fire departments on enforcement issues. Monitoring included sensitive bird and avian community surveys and focused species surveys for Blochman's Dudleya (*Dudleya blochmaniae*) on City-owned properties.

As of November 2008, San Diego Habitat Conservancy (SDHC; previously Helix Community Conservancy) began active management on the Emerald Pointe Estates Preserve. First year management activities included regular site inspections, sign installation, baseline documentation, species surveys, and invasive species removal.

Major Threats and Issues of Concern

The top threats for all preserves in Carlsbad have not changed over the last five years. These threats are (1) unauthorized human access, and (2) invasive species. Ten species or species groups have been identified by preserve managers as the most threatening for the Carlsbad preserve system (see Section 2.2).

Potential Emerging Threats

Potential emerging threats include several species of non-native invasive plant species, and two potentially devastating threats to native oak trees (gold-spotted oak borer and several species of fungus).

Enforcement

The Planning Department continues to coordinate with CNLM, Parks and Recreation, CDFG, and the Carlsbad and Oceanside Police Departments on a multi-pronged approach to enforcement within the preserve system.

Financial Summary

- *In-lieu Mitigation Fee Program*. A total of \$83,553 of *in-lieu* mitigation fees were collected during the reporting period. As of October 31, 2009, the total amount of money in the fund was \$1,057,072.
- *Preserve Management Endowments*. During the reporting period, a total of \$231,163 was used by CNLM for management and monitoring activities on eight preserves. Endowment funds for these properties totaled \$6,157,546 (adjusted for inflation) as of October 31, 2009. Information for preserves managed by other entities was unavailable or incomplete.

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1.0 Implementation and Plan Administration

1.1 Introduction

The purpose of this document is to provide an update on the current status of the Habitat Management Plan (HMP) preserve system, including the current status of individual preserves; a summary of habitat gains and losses for the current reporting period (November 1, 2008 – October 31, 2009); a summary of HMP-related permits, amendments, and other implementation activities; a discussion of HMP compliance; a summary of management activities and issues; and a summary of HMP-related funding and expenditures. This information will be used in compliance monitoring to determine if the HMP is being properly implemented pursuant to relevant regulations and permit conditions. Annual tracking of the HMP Preserve's gains, losses, management, and monitoring is required by the Implementing Agreement (IA) and the HCP/NCCP take permits/authorizations. The City of Carlsbad (City) approved the IA on November 9, 2004.

1.2 HMP Compliance Monitoring and Effectiveness Monitoring

1.2.1 HMP Conservation Goals

In order to evaluate the City's *compliance* with the HMP, and the *effectiveness* of the MHCP/HMP with respect to natural resources protection, it is necessary to understand the underlying goals of the plan, which are summarized below (See HMP p. A-2 for a complete list):

- Conserve the full range of vegetation community types, with a focus on sensitive habitat types.
- Conserve populations of narrow endemic species and other covered species.
- Conserve sufficient habitat, functional biological cores, wildlife movement corridors, and habitat linkages, including linkages that connect coastal California gnatcatcher (*Polioptila californica californica*) populations and movement corridors for large mammals, to support covered species in perpetuity.
- Apply a “no net loss” policy to wetlands, riparian habitats, and oak woodlands.
- Implement appropriate land use measures to ensure the protection of preserve lands in perpetuity.
- Meet conservation goals stated above while accommodating orderly growth and development in the City.

- Coordinate and monitor protection and management of conserved lands within the preserve system.
- Minimize costs of Endangered Species Act (ESA)-related mitigation and HMP implementation.

1.2.2 Compliance Monitoring

Compliance monitoring, also known as implementation monitoring, is required to ensure that the City is performing the conservation and implementation actions described in the Implementing Agreement. Compliance monitoring tracks whether the City is doing what it agreed to do, such as conserving particular species locations and acres of habitat, monitoring the condition of the habitat, and performing required management actions (MHCP Vol III). The Preserve Steward assists the City by conducting compliance monitoring and reporting for agency review. Habitat tracking results are provided in Section 1.4; regulatory compliance is discussed in Section 1.5; and management and monitoring activities are summarized in Section 2.0.

1.2.3 Effectiveness Monitoring

Effectiveness monitoring (biological monitoring) will evaluate how well the conservation and management actions are achieving the biological goals stated in the MHCP and HMP within the City and across the MHCP planning area as a whole. The preserve-level monitoring program will be used to evaluate the effectiveness of management actions at specific preserve areas (MHCP Vol. III). At the subregional (MHCP-wide) level, effectiveness monitoring involves assessing status and trends in populations of covered species, and assessing how well the conservation strategy is working to maintain natural ecological processes (MHCP Vol. III). The City is responsible for biological monitoring on City-owned properties and for reporting monitoring results from other properties within the HMP. The Wildlife Agencies are responsible for monitoring on their own properties (i.e., ecological reserves owned by CDFG) and for conducting subregional monitoring and analysis.

Monitoring the effectiveness of the MHCP and HMP is more challenging than compliance monitoring because the biological goals are broad and it may take many (5-10) years before trends in species populations and habitat conditions are detectable. Species and habitat monitoring is conducted by the Preserve Managers. The City, Preserve Steward, Preserve Managers, and Wildlife Agencies are currently working together to develop a functional City-wide monitoring program that will help answer questions about population trends and wildlife movement. In addition, the City is

coordinating with the San Diego Management and Monitoring Team, which is developing regional and preserve-level monitoring and management protocols.

1.3 Current Status of Preserves

The current status of individual preserves within the HMP Preserve is given in Sections 1.3.1 – 1.3.4, including the primary preserve management entity, underlying landowner, overall acreage, and status of conservation easement, endowment, preserve management plan, and annual reports, where applicable. Preserve locations are shown in Figure 1 (see also www.carlsbadhmp.org/preserves.html). In the sections below, the preserves have been grouped according to management status and type of ownership. Section 1.3.5 summarizes mitigation parcel activity, and is followed by a status summary of the Gnatcatcher Core Area obligation (Section 1.3.6).

1.3.1 Ecological Reserves

Table 1 includes five Ecological Reserves that are owned by CDFG. Ecological Reserves in existence prior to the HMP (Existing Hardline areas) require management to HMP standards pursuant to available funding. Management of these preserves (except for Buena Vista Creek Ecological Reserve) is funded through annual state budget appropriations for CDFG. Ecological Reserves acquired after HMP approval may include a non-wasting endowment and management contract with a non-CDFG preserve manager, as is the case with Buena Vista Creek Ecological Reserve, which is being managed by CNLM.

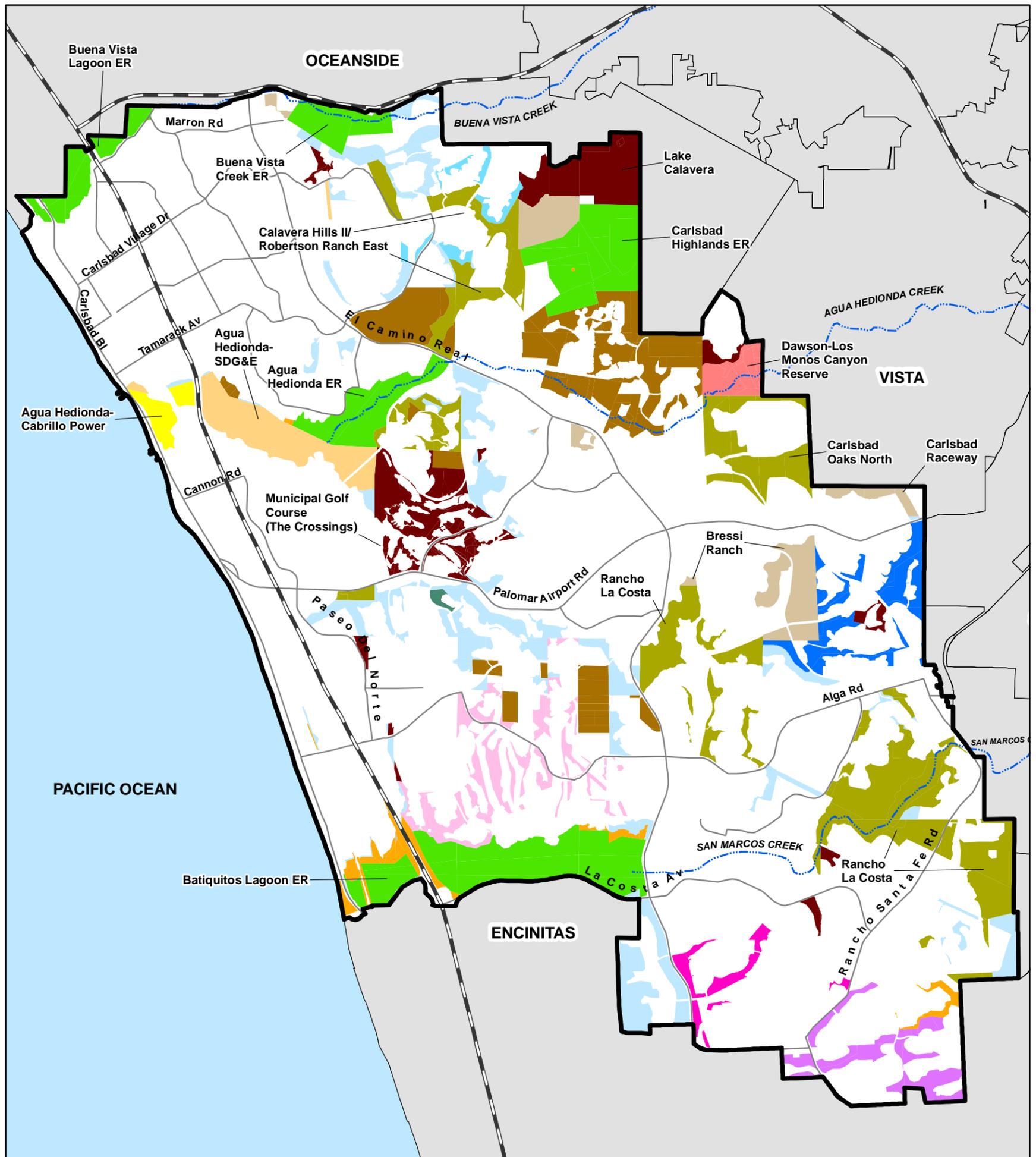
Table 1. Current Status of Ecological Reserves within the HMP Preserve

Preserve / Project Name	Acres	PM ¹	PMP ¹	Annual Reports
Agua Hedionda Lagoon Ecological Reserve	195	CDFG	None	None
Batiquitos Lagoon Ecological Reserve	621	CDFG	1999	None
Buena Vista Creek Ecological Reserve	134	CNLM	Draft 2008 ²	2008
Buena Vista Lagoon Ecological Reserve	139	CDFG	None	None
Carlsbad Highlands Ecological Reserve	364	CDFG	None	None

¹ Abbreviations: PM – Preserve Manager; PMP – Preserve Management Plan; CDFG = California Department of Fish and Game; CNLM = Center for Natural Lands Management.

² A draft Preserve Management Plan was submitted to the Wildlife Agencies in May of 2008, and is currently under review.

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Legend

City of Carlsbad

- City Preserves*
 - Batiquitos Drive
 - Carlsbad Village
 - Carrillo Ranch
 - La Costa Canyon Park
 - La Costa/Romero
 - Lagoon Lane
 - Lake Calavera
 - Los Monos
 - Macario Canyon
 - Municipal Golf Course
 - Poinsettia Park
 - Research Center
 - Veteran's Memorial Park

Other Public/Semi-Public

- Cabrillo Power
- San Diego Gas and Electric
- Other Public Agencies
 - Caltrans
 - Carlsbad Municipal Water District
 - North San Diego County Transit
 - San Dieguito Union High School
 - State of California

Wildlife Agencies

- California Department of Fish and Game
 - Agua Hedionda Lagoon Ecological Reserve (ER)
 - Batiquitos Lagoon ER
 - Buena Vista Creek ER*
 - Buena Vista Lagoon ER
 - Carlsbad Highlands ER

University of California Reserve System

- University of California Reserve System
 - Dawson-Los Monos Canyon Reserve

Non-Profit Management Entity

- Center for Natural Lands Management (CNLM)
 - Calavera Hills Phase II
 - Carlsbad Oaks North
 - Encinitas Wetlands
 - Kelly Ranch
 - North County Habitat Bank
 - Rancho La Costa
 - Robertson Ranch East Village
 - Robertson Ranch West
- San Diego Habitat Conservancy
 - Emerald Pointe Estates

Private

- Aviara HOAs
- Calavera Hills HOAs
- Encinitas Creek HOAs
- La Costa Valley HOA
- Rancho Carrillo Master HOA
- Other HOAs and Private Open Space

Other Entities

- Pending or by Annual Contract
 - Batiquitos Lagoon Parcel
 - Bressi Ranch
 - Brodiaea Preserve
 - Calavera Heights Mitigation Site
 - Carlsbad Raceway
 - Fox Miller Brodiaea Site
 - Summit
- Unmanaged Properties
 - Undeveloped Standards Area
 - Other Unmanaged Properties

Basemap Legend

- City of Carlsbad
- Jurisdictional Boundary
- Freeway
- Major Road
- River

*Managed by Center for Natural Lands Management (CNLM)



Feet
0 4,750

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1.3.2 Privately Owned Pre-Existing Preserves

Pre-existing HMP preserves (called Existing Hardline Conservation Areas in the HMP) that are privately owned include the areas in or near Agua Hedionda Lagoon that are owned by Cabrillo Power and SDG&E, UCSD-owned Dawson-Los Monos Reserve, TET bankruptcy properties, and HOA lands that were in existence prior to the planning for the HMP (Table 2). The HMP requires that these lands be managed according to pre-existing levels of management (i.e., management agreements in place prior to HMP approval). The Wildlife Conservation Board (WCB) approved CDFG's request to take on management of the TET properties in December 2008; however, the quitclaim deeds have not been finalized as of the current reporting period. Therefore, all TET properties show CDFG management as pending.

Table 2. Privately Owned Pre-Existing Preserves

Preserve	Acres	Land Owner ¹	PM ¹
Agua Hedionda –Cabrillo Power	73.2	Cabrillo Power	Cabrillo Power
Agua Hedionda –SDG&E	280.2	SDG&E	SDG&E
Aviara Conservation Area	269.6	Multiple HOAs	Multiple HOAs
Batiquitos Lagoon Parcel	1.5	Previously TET	(CDFG) ²
Brodiaea Preserve	1	Previously TET	(CDFG) ²
Calavera Heights Mitigation Parcel	110	Previously TET	(CDFG) ²
Calavera Hills Phase I	120	HOA	HOA
Dawson-Los Monos Reserve ³	106	UCSD	UCSD
Encinitas Creek HOAs ⁴	185.5	Multiple HOAs	Multiple HOAs
Encinitas Wetlands	19	CNLM	CNLM
La Costa Valley HOA (Arroyo La Costa)	82.1	HOA	HOA
Poinsettia Lanes Vernal Pools	2.3	NCTD	NCTD
Rancho Carrillo Conservation Area	204	Continental Residential Inc.	HOA
Summit	11.6	Carlsbad Apts. LLC/TET	(CDFG) ²

¹ Abbreviations: CDFG = California Department of Fish and Game; HOA = Home Owners' Association; PM – Preserve Manager; NCTD = North County Transit District; SDG&E = San Diego Gas and Electric; TET = The Environmental Trust; UCSD = University of California, San Diego.

² Management is currently pending, as quitclaim deed to TET properties has not been processed.

³ Located partially in City of Vista.

⁴ Identified as part of the Special Resource Area 3 in the HMP (page D-7).

1.3.3 City-Owned Preserves

Table 3 lists City-owned preserves (also depicted graphically in Figure 1), for which ongoing management will be continuously funded through the City's annual budget appropriation process. City preserves require permanent management, a preserve management plan, and annual reports. A management contract with CNLM was approved

by the City Council on December 16, 2008. CNLM began actively managing City-owned lands in January 2009, which fulfills the City’s obligation to provide management for the Lake Calavera Mitigation Parcel and other City-owned lands, as described in the HMP and Implementing Agreement.

Table 3. City-Owned Preserves and Mitigation Parcel

Preserve / Project Name	Acres	PMP ¹	Annual Reports
Batiquitos Drive	2.7	2008; includes all City properties in a single document	2008-2009; includes all City properties in a single report
Carlsbad Village	12.7		
Carrillo Ranch	16.6		
La Costa Canyon Park	8.9		
La Costa /Romero	13.0		
Lagoon Lane	2.7		
Lake Calavera Mitigation Parcel	266.1		
Los Monos	20.5		
Macario Canyon	33.2		
Municipal Golf Course	198.2		
Poinsettia Park	12.4		
Research Center	2.6		
Veterans Park	21.1		
Total Acres	610.7		

¹ PMP = Preserve Management Plan; Preserve Management Plan and annual reports are available at www.carlsbadhmp.org/documents.html.

1.3.4 Project-Related Preserves

Table 4 shows all project-related preserves (called Proposed Hardline Conservation Areas and Standards Areas in the HMP). Projects that mitigated impacts through an *in-lieu* mitigation fee rather than land preservation are not included in this table.

It is useful to understand all of the steps involved in land conservation (i.e., management to HMP standards), because it can take several years after a project is approved to finalize protection and management of a project-related preserve. Projects that were approved after the 1999 draft of the HMP, but prior to final approval of the revised HMP (November 2004), were conditioned to comply with the land preservation requirements; however, due to difficulties in processing Conservation Easements and/or securing a

Table 4. Project-Related Preserves

Preserve / Project Name	Acres	Grading Permit	PAR ¹	Endwmt ¹	CE ¹	Land Owner	PM ¹	PMP ¹	Annual Reports	Comments
Bressi Ranch	154	01/03	Pending	No	Pending	Lennar	None	Jul-05	None	Latest PAR draft Mar-08.
Calavera Hills Phase II	133	2002	2006	May-06*	May-06	Calavera Hills HOA	CNLM	2002	2006-2009	*CNLM merged funds with Robertson Ranch East for cost savings since client uses CNLM for both projects.
Cantarini/Holly Springs	115	No	Pending	Pending	No	Benteq/Bentley-Monarch	None	Draft 2008	None	Project was redesigned; Project not currently active.
Carlsbad Oaks North	221	11/12/04	2006	Jun-06	Nov-05	CNLM, County	CNLM	2006	2005-2009	
Carlsbad Raceway	43	01/03	Pending	No	Sep-08	H.G. Fenton	None	None	None	
Emerald Pointe Estates	9.4	3/21/06	Feb-06	12/12/06	Feb-06	Saddleview LLC	SDHC	In PAR	2009	Management/monitoring requirements stated in PAR.
Kelly Ranch HCA	57.8	2003	2002	Feb-02	Feb-02	multiple	CNLM	2002	2002-2009	
N. County Habitat Bank	18.7	N/A ¹	5/24/07	5/07/07	Jan-08	Westmark Dvp	CNLM	2006	2008-2009	Pre-existing; no grading permit required.
Pacifica Palomar (Biltmore)	8	8/23/05	Nov-07	Dec-07	May-08	Ascent Biltmore Clsbad LLC	Merkel	Dec-06	None	Under 5 yr restoration program with Merkel. SDHC to start permanent management Aug-2012.
Palomar Pointe/Hieatt	6.5	2/03/05	2004	No (see comments)	No	Larry Jet; Lanikai Mgmt Group	Helix	2005	None	Offsite mitigation (8.7 acres) at Whelan Ranch, 16.8 ac creation. Financial guarantee: Mgmt is contracted out and paid annually by landowner (L. Jett).
Rancho La Costa (La Costa Villages)	1,026	3/31/04	2001	2002 and 2003	Pending	CNLM	CNLM	2006	2002-2009	Includes the CAGN Core Area parcels outside of the City limits.
Robertson Ranch East	72	1/16/07	Feb-07	2/6/07*	2/6/07	Calavera Hills II LLC	CNLM	2006	2009	*CNLM merged funds with Calavera Hills Phase II for cost savings since client uses CNLM for both projects.
Special Resource Area 1: Fox Miller Brodiaea site	16.3	12/28/05	No	No (see comments)	June 2009	HG. Fenton	Helix	Dec-05	None	Relocation, restored and non-restored areas managed by Helix (by annual contract). SDHC will manage property when 5-yr restoration is complete.
Terraces at Sunny Creek	43.2	4/26/00	No	No	No	Rancho Milagro LLC	Glen Lukos (developer)	None	None	Pre-HMP project outside HMP; mitigation w/in HMP; endowment, etc., not required.
Water's End ²	3.3	5/15/02	No	See comments	1994	HOA	HOA	None	None	Mitigation fee of \$100,000 paid by developer for long-term management, held by City.

¹ Abbreviations: PAR – Property Analysis Record; Endwmt – endowment; CE – Conservation Easement; PM – Preserve Manager; PMP – Preserve Management Plan; N/A Not applicable; NCTD = North County Transit District; SDHC = San Diego Habitat Conservancy (formerly Helix Community Conservancy).

² Water's End is not in the HMP. However, it is protected open space adjacent to the Poinsettia Lanes Vernal Pools (vernal pool watershed). Five years of restoration monitoring was completed in 2008, and the HOA took over preserve management.

Preserve Manager, some of these “pre-HMP” projects were allowed to grade prior to completion of all preservation-related conditions, deferring the Conservation Easement recordation and other provisions to building permit issuance or Certificate of Occupancy. In Table 4, these are shown as “pending.” If a preserve management contract is still under negotiation, the preserve manager is shown in parentheses. Currently (since November 2004), as a condition of final project approval, all of the following steps must be taken by the landowner or developer before a grading permit will be issued by the City:

- Preparation of a Property Analysis Record (PAR) to assess the initial start up costs and costs of management and monitoring of the preserve in perpetuity (must be approved by the City and Wildlife Agencies).
- Preparation of an area-specific Preserve Management Plan (PMP) to ensure adequate management and monitoring of biological resources in perpetuity (must be approved by the City and Wildlife Agencies).
- Establishment of a non-wasting endowment to provide funds for preserve management in perpetuity.
- Establishment of a Conservation Easement on the preserve.
- Procurement of a Preserve Manager for the preserve whose qualifications are consistent with Wildlife Agency guidelines.

1.3.5 Lake Calavera Mitigation Parcel

The City-owned Lake Calavera municipal mitigation parcel (Lake Calavera Preserve) will provide mitigation as needed for City project-related impacts. Credits will be deducted on an acre-for-acre basis, regardless of the type of habitat being impacted, except for impacts to gnatcatcher-occupied coastal sage scrub, southern maritime chaparral, maritime succulent scrub, and wetlands. No credits will be sold to outside entities. Table 5 shows total debits to date. No debits occurred during the reporting period. The Lake Calavera mitigation parcel is currently being managed by CNLM. The City and Wildlife Agencies are working together to finalize the Conservation Easement for the property.

Table 5.. Mitigation Acreage Provided at Lake Calavera Mitigation Parcel

Credits and Debits	Acres ¹
<i>INITIAL CREDITS</i>	266.1
Total Debits as of October 31, 2007	82.3
Year 5 Project-Related Deductions (Nov 2008 – Oct 2009)	
1. None	
<i>Subtotal Year 4 debits</i>	0
<i>Total Debits</i>	82.3
TOTAL ACRES AVAILABLE AS OF OCTOBER 31, 2008	183.8

¹ Rounded to the nearest tenth of an acre.

1.3.6 Wildlife Movement Corridors and Crossings

During the reporting period, wildlife corridor studies were conducted on two of the larger preserves: Rancho La Costa and Carlsbad Oaks North. The goal of the preserve manager, CNLM, is to understand and study trends in wildlife movement at “pinch points” locations and movement corridor locations in their preserves. More specifically, CNLM is attempting to answer the following questions:

- What mammalian predators are using the corridor areas?
- What is the frequency and temporal variation of mammalian predator use of these corridors?
- How does the mammalian predator use of these areas change over time?
- What are the characteristics of each wildlife movement area and how might affect movement?

In addition to one sample monitoring location noted in the MHCP Volume III at Rancho Santa Fe Road, CNLM identified six additional locations within the Rancho La Costa preserve and three locations within the Carlsbad Oaks North preserve for monitoring. Efforts during the reporting period focused on two locations within Rancho La Costa and, using digital remote-sensing cameras, corridor usage by coyote, bobcat, mule deer, and rabbit were noted. It was also noted that the number of occurrences at one location was lower than past years, thereby indicating a potentially new travel route for the animals.

In two locations within Carlsbad Oaks North, using digital scouting cameras with motion sensors, two coyote and one mule deer were recorded. Only coyote were observed using the wildlife undercrossing under Faraday Avenue. Additional information on the wildlife movement corridor studies can be found in the preserve-specific annual reports for Rancho La Costa and Carlsbad Oaks North.

There are a number of wildlife movement corridor sampling locations identified in the MHCP Volume III that are within the Carlsbad HMP preserve system. The main purpose of these sampling locations is to monitor the connectivity between the major lagoons and estuary systems and the larger blocks of inland habitats. In addition, as noted by CNLM, there are other “pinch points” and areas of interest within the individual preserves. City of Carlsbad staff, along with the Preserve Steward and CNLM staff, will be working with the newly formed San Diego Management and Monitoring Team to develop standardized protocols and methods for tracking wildlife movement. Once these standards are developed, they can be applied to the locations noted in the MHCP, as well as other areas.

1.3.7 Carlsbad’s Gnatcatcher Core Area Obligation

Acreage

During final approval of the HMP in 2004, 264.6 acres of the 307.6-acre Gnatcatcher Core Area obligation had been met. The current status of the Core Area obligation has not changed. The remaining obligation consists of (1) acquisition of 43.0 acres of occupied coastal sage scrub habitat, and (2) the reimbursement of 50.1 acres of land that was acquired by a developer in anticipation of the HMP Core Area requirements. This property is now in the control of Lennar Development. The history of the Gnatcatcher Core Area, including how the above obligations were met, is detailed in previous annual reports.

During the current reporting period, the City continued its efforts to transact the reimbursement and secure the preservation of the 50.1 acre property. *In-lieu* mitigation fees will be used to purchase the remaining 43.0 acres after all reimbursement obligations have been met. Lands within the Gnatcatcher Core Area, including the 50.1 acres owned by Lennar Development described above, are currently being managed by CNLM as part of the Rancho La Costa Open Space Preserve.

***In-lieu* Habitat Mitigation Fee Program.**

Under certain conditions, project impacts that occur outside of the HMP preserve area may be mitigated through a fee, rather than onsite land conservation. A total of \$83,553 of *in-lieu* mitigation fees were collected during the reporting period. As of October 31, 2009, the total amount of money in the fund was \$1,057,072. A detailed accounting of these fees is given in Section 3 (Financial Summary).

1.4 Habitat Gains and Losses

Pursuant to the HMP and IA, the City is required to provide an annual accounting of the amounts and locations of habitat lost and conserved over time due to public and private development projects and land acquisition. This information will be used to demonstrate to the Wildlife Agencies that (a) habitat loss is occurring in rough step with development, (b) the HMP Preserve is being assembled as anticipated, and (c) the habitat conservation goals of the HMP are being achieved. Habitrak is a software tool that was designed to satisfy these tracking and reporting requirements by providing standard tracking protocols and reporting output. It uses standard baseline spatial databases (e.g., vegetation, preserve boundaries, and parcel boundaries) and development project footprints to prepare standardized tables and maps for annual reporting.

1.4.1 Target Acreage

The number of acres of each habitat projected to be conserved in the HMP Preserve at build-out is given in Table 8 of the HMP (reproduced in Table 6 below), including 6,478 acres of habitat within the City and an additional 307.6 acres of habitat within the Gnatcatcher Core Area outside of City limits (note that some of these requirements have been met through habitat enhancement within the HMP). According to this table, the total projected amount of conserved land is 6,786 acres. However, the Implementing Agreement states that the City is obligated to establish a preserve of 6,757 acres, a difference of 29 acres. At this time the origin of this discrepancy is unknown.

Habitrak is used by the City to calculate the number of acres added to the HMP Preserve every year (although it does not calculate gains within the Gnatcatcher Core Area which is outside of the City limits). Some of the habitat types used in the standard Habitrak table outputs are more specific than those used in HMP Table 8. To make it easier to compare the Habitrak tables with the HMP table for compliance monitoring, Table 6 below lists acres of target conservation and compares habitat categories in HMP Table 8 to categories used in Habitrak. Note that the GIS data layers used for this analysis included the more detailed habitat categories.

**Table 6. HMP Target Conservation of Habitats
(Comparison of Habitat Categories in HMP and Habittrak)**

HMP Table 8		Habittrak	
Habitat Type	Target Acres	Habitat type	Target Acres
Coastal sage scrub	2,139	Maritime succulent scrub	29
		Coastal sage scrub	2,003
		Coastal sage-chaparral scrub	107
		<i>Subtotal</i>	<i>2,139</i>
Chaparral	676	Chaparral	676
Southern maritime chaparral	342	Southern maritime chaparral	342
Oak woodland	24	Coast live oak	20
		Other oak woodland	4
		<i>Subtotal</i>	<i>24</i>
Riparian	494	Riparian forest	82
		Riparian woodland	17
		Riparian scrub	395
		<i>Subtotal</i>	<i>494</i>
Marsh	1,252	Southern coastal salt marsh	143
		Alkali marsh	9
		Freshwater marsh	165
		Freshwater	53
		Estuarine	789
		Disturbed wetland	93
<i>Subtotal</i>	<i>1,252</i>		
Grassland	707	Grassland	707
Eucalyptus woodland	99	Eucalyptus woodland	99
Disturbed lands	745	Agriculture	185
		Disturbed Land	244
		Developed	316
		<i>Subtotal</i>	<i>745</i>
Total Target Conservation within Carlsbad	6,478	Total Target Conservation within Carlsbad	6,478
Carlsbad's Gnatcatcher Core Area Contribution	308 ¹	Not tracked in Habittrak	N/A
Total HMP Target Conservation	6,786		

¹ Rounded to the nearest acre.

1.4.2 Land Acquisitions

No natural open space land acquisitions were made inside of the HMP this year; however, one parcel of land was acquired outside of the HMP by Caltrans, through the TransNet EMP. The 11.4-acre property, known as Mariner's Cove, is located on the north shore of Agua Hedionda Lagoon, and consists of coastal sage scrub and non-native grassland. Because this property does not yet have permanent HMP-level management, it cannot be added to the HMP preserve at this time.

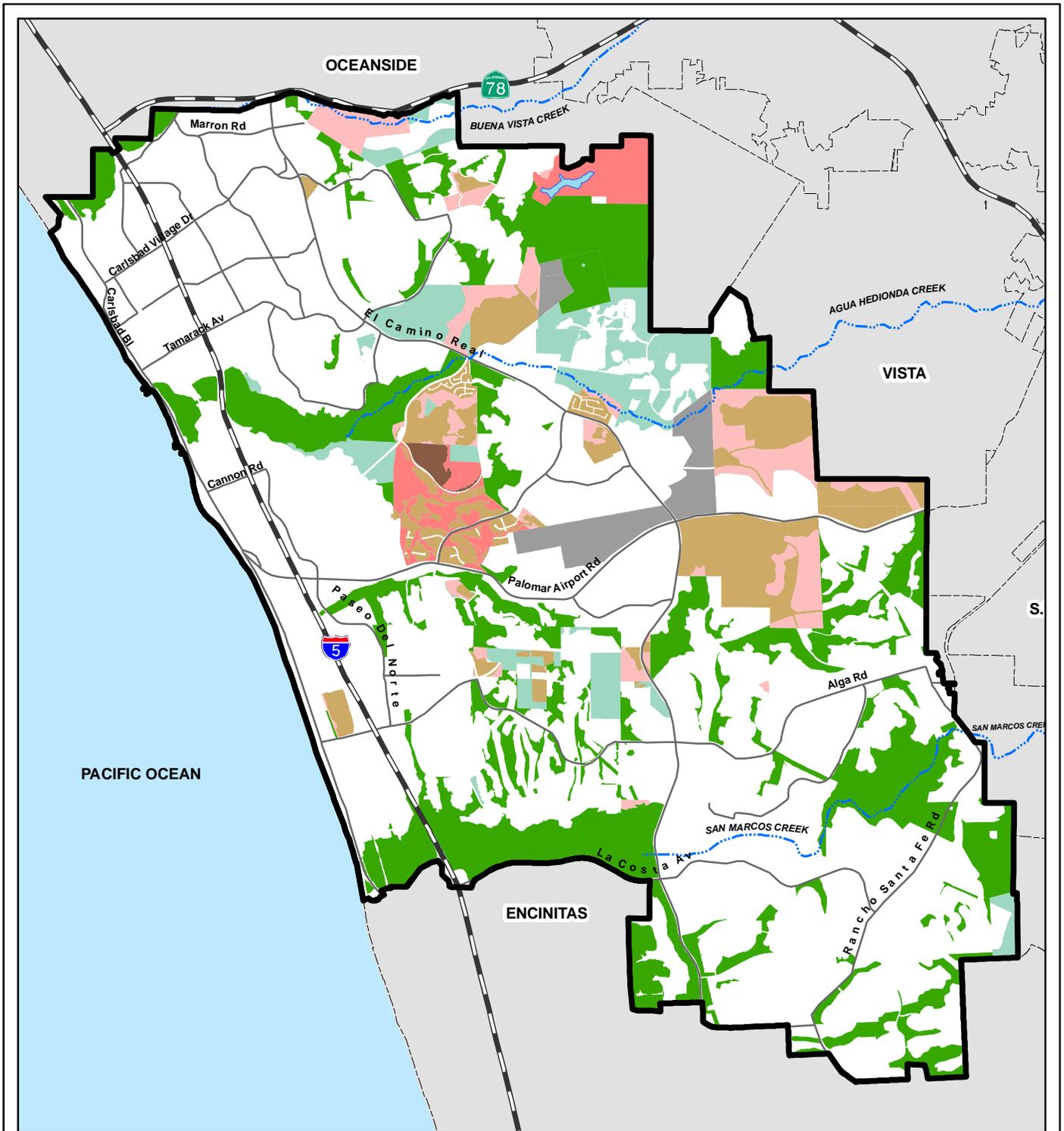
1.4.3 Habitat Gains and Losses

During the reporting period, 498.1 acres of habitat were gained inside the HMP preserve system (Figure 2). This acreage consists of City-owned preserves that were previously classified as Proposed Hardline in the HMP (e.g. Lake Calavera, Macario Canyon, Veterans Park, and Municipal Golf Course). As of December 2008, these properties (and other City-owned preserves) have had permanent management by CNLM. No habitat losses were incurred inside the HMP preserve system. Habitat gains *outside* of the HMP consisted of the 11.4-acre Mariner's Cove property, as described above. Losses outside of the HMP include 6.35 acres of nonnative grassland, and 0.75 acre of disturbed lands. These losses were mitigated through *in-lieu* mitigation fees, and are tracked through the mitigation fee program (see Section 3.1.2 for more details).

To date, cumulative habitat gains and losses inside the Preserve are 5,821 acres and 169 acres, respectively. This represents 90% (5,821/6,478 acres) of the target acreage for the HMP Preserve, not counting the Gnatcatcher Core Area. Table 7 summarizes Year 5 habitat gains and losses by vegetation community. Note that the cumulative gains and losses differ from those previously reported due to adjustments made in the Habitrak reporting system as explained in Section 1.4.4 below.

Note that Proposed Hardline areas, as shown in HMP Figure 28, were pre-negotiated areas of mitigation (preserved open space) for proposed projects. When setting preserve boundaries during the development of the HMP, project-related losses within a given Proposed Hardline property were not included, and therefore these losses show up as losses outside of the preserve (shown in Table 7). Losses within Standards Areas are shown as losses inside the preserve. Losses *outside* of the HMP preserve are currently tracked through the *in-lieu* mitigation fee program.

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Legend

- Gain in Year 5
- Loss in Year 5
- Gain (before Year 5)
- Loss (before Year 5)
- Existing Hardline Conservation Area
- HMP Area with No Gain or Loss
- Not A Part

Basemap Legend

- City of Carlsbad
- Jurisdictional Boundary
- Freeway
- Major Road
- River
- Lake



Feet

0 6,500

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Table 7. Summary of Cumulative Habitat Losses and Gains for Year 5

<i>City of Carlsbad</i>		Acres Inside the Habitat Preserve Planning Area						Acres Outside the Habitat Preserve				Total Acres			
		Habitat Loss			Habitat Gain			Habitat Loss		Habitat Gain		Habitat Loss		Habitat Gain	
		Target Cons.	Current Period	Cummulative	Current Period	Cummulative	Cons. to Date %	Current Period	Cummulative	Current Period	Cummulative	Current Period	Cummulative	Current Period	Cummulative
Southern Coastal Bluff Scrub	0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Maritime Succulent Scrub	29	0.0	1.6	0.0	25.5	88.0 %	0.0	0.0	0.0	5.5	0.0	1.6	0.0	31.1	
Coastal Sage Scrub	2,003	0.0	11.4	134.0	1,610.5	80.4 %	17.8	159.7	0.0	5.5	17.8	171.1	134.0	1,616.0	
Chaparral	676	0.0	0.5	97.6	605.1	89.5 %	0.0	65.7	0.0	0.0	0.0	66.2	97.6	605.2	
Southern Maritime Chaparral	342	0.0	0.0	8.4	331.7	97.0 %	0.7	16.2	0.0	1.5	0.7	16.2	8.4	333.1	
Coastal Sage-Chaparral Scrub	107	0.0	0.0	13.7	112.4	105.1 %	0.0	153.5	0.0	0.0	0.0	153.5	13.7	112.4	
Grassland	707	0.0	21.8	92.7	635.8	89.9 %	2.5	218.8	0.0	1.5	2.5	240.6	92.7	637.3	
Southern Coastal Salt Marsh	143	0.0	0.0	0.0	127.8	89.4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	127.8	
Alkali Marsh	9	0.0	0.0	0.0	0.0	0.0 %	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	
Freshwater Marsh	165	0.0	0.0	16.7	138.1	83.7 %	0.0	0.9	0.0	0.3	0.0	0.9	16.7	138.3	
Riparian Forest	82	0.0	0.9	0.4	62.8	76.6 %	0.0	1.3	0.0	0.4	0.0	2.2	0.4	63.3	
Riparian Woodland	17	0.0	1.3	0.0	11.7	68.6 %	0.0	0.0	0.0	0.0	0.0	1.3	0.0	11.7	
Riparian Scrub	395	0.0	0.1	47.3	369.7	93.6 %	0.0	9.8	0.0	0.6	0.0	9.8	47.3	370.2	
Englemann Oak Woodland	0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Coast Live Oak	20	0.0	0.0	0.0	7.7	38.3 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	
Other Oak Woodland	4	0.0	0.0	0.0	4.8	120.5 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	
Freshwater	53	0.0	0.0	14.9	51.2	96.6 %	0.0	0.0	0.0	0.0	0.0	0.0	14.9	51.2	
Estuarine	789	0.0	0.0	0.0	776.5	98.4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	776.5	
Disturbed Wetland	93	0.0	0.0	0.0	88.6	95.3 %	0.0	11.7	0.0	0.0	0.0	11.7	0.0	88.6	
Natural Floodchannel	0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Beach	0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Saltpan/Mudflats	0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Agriculture	185	0.0	117.0	25.9	222.0	120.0 %	33.5	462.2	0.0	3.2	33.5	579.2	25.9	225.2	
Eucalyptus Woodland	99	0.0	1.3	1.7	94.9	95.9 %	0.0	0.5	0.0	0.0	0.0	1.8	1.7	94.9	
Disturbed Land	244	0.0	0.0	35.5	237.1	97.2 %	0.4	174.9	0.0	4.5	0.4	174.9	35.5	241.6	
Urban/Developed	0	0.0	13.0	9.3	307.0		0.0	42.3	0.0	0.9	0.0	55.4	9.3	307.9	
Southern Foredunes	0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Agency Total:		0.0	169.1	498.1	5,820.9		54.9	1,317.5	0.1	23.9	54.9	1,486.6	498.2	5,844.8	

Note: The Agriculture and Urban/Developed category is included to account for all land included within a project and habitat preserve planning area.

1.4.4 Revisions to Habitrak Data

An accuracy check was conducted to ensure that all projects were entered into Habitrak correctly, and to verify project information. The resulting corrections are described below. See Appendix A for Habitrak reports that were re-run for years 1 through 5.

- Carlsbad Highlands Ecological Reserve. Three parcels of the Holly Springs area were purchased in 2001, and are currently part of the Ecological Reserve. This information was not included in the original HMP map (HMP Figure 28). These parcels were added to Habitrak, resulting in an increase of 101.6 acres.
- Carlsbad Municipal Golf Course (The Crossings). The date of habitat gain was changed from Year 1 to Year 5, when permanent management became established; boundary corrections resulted in an increase of 13.57 acres.
- Existing Hardline Conservation Area. Boundary corrections resulted in an increase of 0.77 acre.
- Redeemer. There was no habitat gain from this project; 0.77 acre was removed.
- Robertson Ranch East. Boundary correction resulted in a reduction of 0.32 acre.
- Robertson Ranch West. When the Robertson Ranch *East* open space was added to the HMP, it was unknown at the time a small parcel from Robertson Ranch *West* had also been conserved (including a conservation easement, endowment for management, and preserve management plan). The Robertson Ranch West parcel was added to Habitrak, resulting in an increase of 35.47 acres. This gain should have been incorporated in Year 4.
- Terraces at Sunny Creek. It was originally believed that a Conservation Easement covered the entire parcel; however, it was discovered that the Conservation Easement only covers the portion south of, and including, the riparian corridor. The boundary correction resulted in a reduction of 27.89 acres.

1.4.5 Rough-Step Preserve Assembly

As stated in the IA (12.1 Record Keeping) “Habitat conservation under the HMP must proceed concurrently and in rough step with development.” Although ‘rough step’ has not been defined in the HMP or MHCP, the general standard adopted by the Wildlife Agencies is that acres of habitat gain must be within approximately 10% of habitat losses (Christine Beck, CDFG, pers comm.). Rough step development is built into the City’s project permitting process. For projects within the HMP, the City requires that the following are approved and/or in place before a grading permit will be issued: PAR analysis, non-wasting endowment for perpetual management, conservation easement,

preserve management plan, and a contract with an approved preserve manager. Some projects that were initiated *prior* to final HMP approval were issued grading permits before all of these elements were put in place. The City continues to work towards ensuring permanent management for these properties. Habitat impacted *outside* of the HMP is mitigated through an *in-lieu* mitigation fee.

1.5 Regulatory Compliance

To ensure regulatory compliance, the City is implementing the HMP (1) through the project review process for new development projects; (2) by issuing HMP permits when impacts to habitat or covered species is anticipated; (3) by issuing incidental take permits when take of a listed species is anticipated; and (4) by ensuring consistency with the terms and conditions of the IA, and State NCCP and federal HCP permits.

1.5.1 HMP-related Permits and Amendments

During the current reporting period, eight HMP permits for private and public development projects have been submitted to the City, and two of these have been approved, as shown in Table 8. Table 8 also includes a status update for HMP permits that were initiated prior to the reporting period, but had not been approved as of last year’s annual report. No incidental take permits have been issued and no minor or major amendments have been completed.

Table 8. HMP Permits in Process during Year 5

HMP Permit No.	Project Name	Date	Status
HMP 06002	Johnson Residence	03/31/2006	Pending
HMP 06009	Dos Colinas	10/19/2006	Withdrawn
HMP 06012	Aura Circle	12/15/2006	Approved
HMP 07001	Rancho Carrillo Trail Extension	01/04/2007	Withdrawn
HMP 07002	Muroya Subdivision	01/10/2007	Incomplete
HMP 07005	Villagio – Kelly Ranch	05/14/2007	Pending
HMP 07006	S. Coast Materials Quarry	07/31/2007	Incomplete
HMP 09001	Rancho Milagro	01/16/2009	Pending
HMP 09002	Dos Colinas	02/02/2009	Pending
HMP 09003	Romeria Street Channel Improvement	02/04/2009	Pending
HMP 09004	Valley View Office Building	03/01/2009	Withdrawn
HMP 09005	Lake Calavera Trails Master Plan	03/26/2009	Pending
HMP 09006	Encinas Creek Bridge	03/26/2009	Approved
HMP 09007	Jefferson Street Repair	06/03/2009	Cancelled
HMP 09008	Sukup SFD	09/24/2009	Pending

1.5.2 City Compliance with Terms and Conditions of Take Authorization

To satisfy the terms and conditions of the state and federal take authorization, the City is required to fulfill the obligations outlined in Sections 10 – 14 of the IA, the Conditions of the State NCCP Permit, and Terms and Conditions of the Federal ESA Section 10(a)(1)(B) Incidental Take Authorization/Permit. Implementation tasks associated with these regulations are completed or ongoing, and are described in Tables 9-12. In cases where a particular condition is worded the same in more than one document, a reference is made to a previous table in which compliance is described, to avoid redundancy.

1.5.3 City Compliance with HMP Zone-Wide Standards

The City is also required to ensure that all projects within Standards Areas comply with the zone-specific standards outlined in HMP Section D. All projects that occur within a Standards Area are processed as a Consistency Finding. During this process, it must be demonstrated that the project complies with the standards before the project will be approved by the City and Wildlife Agencies; therefore, all development within Standards Areas are consistent with the HMP.

A total of 182.6 acres of coastal sage scrub occurs within Standards Areas throughout the HMP. To date, 11.4 acres have been lost (6.2%), and 49.4 acres have been conserved (27.0%). Zone-wide standards require at least 67% (122.3 acres) of the coastal sage scrub to be conserved. Therefore, the City must conserve at least 72.0 more acres of coastal sage scrub within the Standards Areas at build-out. (Note that project data was reviewed for accuracy, which resulted in slightly different acreages than were reported last year. See Section 1.4 for details). Table 12 summarizes property-specific and linkage-related standards and current status. Refer to HMP Section D pp. D-73 through D-82 for additional zone-specific standards.

**Table 9. Summary of City Compliance with HMP Requirements
Outlined in the Implementing Agreement (IA)**

A Section	Obligation	City Compliance
10.10	<p>Duty to Enforce: To enforce the terms of the Take Authorization, HMP, and IA and ensure HMP lands are conserved in perpetuity.</p>	<ul style="list-style-type: none"> ▪ The City requires compliance with the HMP as a condition of approval for new development projects, which includes conservation in perpetuity, a non-wasting endowment, and a management agreement with a preserve manager. ▪ On March 14, 2006 the City passed the Habitat Preservation and Management Requirements Ordinance (Carlsbad Municipal Code § 21.210), which includes a section on enforcement (§21.210.19) for violations of the HMP. ▪ The City is currently developing an enforcement policy as well as a coordinated multi-departmental trail enforcement program (Section 2.1.6). ▪ Complaints made by citizens regarding possible violations of the HMP within preserves are investigated on a case by case basis.
11.1	<p>Preserve System: To ensure the establishment and management in perpetuity of a 6,757-acre Preserve System.</p>	<ul style="list-style-type: none"> ▪ The City has currently gained 5,821 acres of habitat within the HMP planning area (90% of target acreage). See Section 1.4.2 for more details.
11.2	<p>Project Mitigation Measures: To require additional mitigation measures to mitigate impacts to covered species in all future development projects.</p>	<ul style="list-style-type: none"> ▪ As a condition of approval for new development projects, the City requires that all potential impacts to HMP covered species be avoided, minimized, or mitigated.
11.3	<p>Regulatory Implementation:</p> <ul style="list-style-type: none"> A. Urgency Ordinance – interim HMP enforcement B. Amend Open Space and Conservation Element of General Plan to incorporate HMP C. Amend Open Space Ordinance to incorporate Conserved Habitat Areas D. Amend Municipal Code to incorporate Standards Area compliance E. Amend General Plan to identify HMP as priority use for open space lands F. Wetlands Protection Program 	<ul style="list-style-type: none"> A. The Emergency Ordinance was approved by the City Council November 9, 2004. B. Revisions to the policy statements regarding the HMP were approved by the City Council in July, 2005. C. Revisions were made to Carlsbad Municipal Code § 21.53.230 and approved by the City Council in March, 2006. Conserved Habitat Areas were included as undevelopable open space lands preserved exclusively and in perpetuity for conservation purposes consistent with the HMP. Submitted to California Coastal Commission on April 3, 2006 – awaiting approval. D. A new chapter (§ 21.210) was added to the Zoning Ordinance to address habitat preservation and management requirements. Section 21.210.040 B. specifically addresses Standards Area compliance. Approved by the City Council in March 2006. Submitted to California Coastal Commission on April 3, 2006 – awaiting approval. E. The General Plan was revised to make conservation of habitat a priority use for the 15% of otherwise developable land which the Growth Management Plan already requires to be set aside for open space purposes (the City defines five categories of open space). Approved by the City Council July 2005. F. New subsections (§21.210.040 D.5 and §21.210.070 A.5) were added to the Municipal Code to address the protection of wetland habitat. The ordinance states that wetlands impacts will be avoided, minimized, or mitigated (in that order). Approved by the City Council in March 2006. Submitted to California Coastal Commission on April 3, 2006, resubmitted on October 8, 2009 – awaiting approval. Compliance is enforced on a project-by-project basis during environmental review. In addition, the City is developing Guidelines for Riparian and Wetlands buffers, which will further protect wetland habitat.

Table 9. Summary of City Compliance with HMP Requirements *continued*

A Section	Obligation	City Compliance
11.4	Additional Implementation Measures: To implement measures included in MHCP.	<ul style="list-style-type: none"> ▪ The MHCP, HMP, and OSMP conservation measures are currently being implemented during the approval process for all development projects and preserve management activities. ▪ See Section 1.6 for details about additional implementation measures.
11.5	Regional Conservation: To effectuate the conservation of 307.6 acres of land within the MHCP Gnatcatcher Core Area, and convey the property to a qualified preserve manager.	<ul style="list-style-type: none"> ▪ The City has met 264.39 acres of its coastal sage scrub conservation obligation through up-front acquisition (50.13 acres), project mitigation (150.26 acres), and habitat enhancement credit (64 acres). ▪ The City must reimburse Lennar (developer) for the 50.13 acres that were purchased up-front (see above), and acquire an additional 43.02 acres. ▪ A non-wasting endowment was established prior to final HMP approval to provide for management of the land in perpetuity. ▪ The Core Area properties are protected under a Conservation Easement, and are being monitored and managed by the Center for Natural Lands Management (CNLM).
11.6	Cooperative Regional Implementation: To participate in MHCP Elected Officials Committee.	<ul style="list-style-type: none"> ▪ To date, Carlsbad is the only MHCP jurisdiction with an approved subarea plan, so this is not applicable at this time; however, the City participates in meetings to discuss MHCP-wide issues with other MHCP jurisdictions and SANDAG as needed.
12.1 12.2 12.4 12.5	Monitoring and Reporting: To track habitat gains and losses within the HMP area (which should occur in rough step with one another); to maintain its database of biological resources; to submit an annual report by December 1 of each year; to hold a public meeting to discuss HMP implementation; and to provide the Wildlife Agencies with additional reports if necessary for compliance monitoring; and to certify all reports.	<ul style="list-style-type: none"> ▪ Habitat gains and losses are being tracked through Habittrak. Rough step preserve assembly is built into the City's permitting process (See Section 1.4 for details.) ▪ Currently the City Planning Department is working with the Preserve Steward, preserve managers, City GIS staff, and the regional monitoring coordinator for San Diego County to determine the best approach to develop and manage monitoring data. ▪ Protocols and standards will be developed with regard to baseline surveys and monitoring (survey methods and data format), entry and attributing of GIS data, and data management. ▪ Annual public HMP workshops are held every spring to give participants an opportunity to learn about current HMP preserve assembly, management, and monitoring, to join a field trip to learn about the preserve lands, and to ask questions and provide comments. ▪ Annual HMP status reports are submitted to Wildlife Agencies in December of each year. The public also has an opportunity to view these reports prior to the annual meeting.

Table 9. Summary of City Compliance with HMP Requirements *continued*

IA Section	Obligation	City Compliance
12.3	Preserve Management and Monitoring Plan: To prepare a preserve management and monitoring plan that will detail recommendations in HMP Section F.	The Open Space Management Plan (OSMP) is the Preserve Management and Monitoring Plan described in IA Section 12.3, and the subarea framework management plan described in MHCP Vol. III, Section 1.2. The first complete draft was finalized in May 2004. The document was completed in September 2004 and accepted by the Carlsbad City Council in December 2005. Currently the OSMP is being reviewed by the California Coastal Commission as part of the HMP Local Coastal Program Implementation Plan; the City is currently implementing OSMP policies Citywide.
13.0	Adaptive Management: To ensure that adaptive management actions do not result in less mitigation than provided for the HMP Covered Species under the original terms of the HMP, unless approved by the Wildlife Agencies.	<ul style="list-style-type: none"> ▪ The City complies with this policy by having ongoing discussions with preserve managers on management activities and by requiring adaptive management within all actively managed preserves. ▪ The City is coordinating with the regional adaptive management and monitoring program in San Diego County. ▪ Carlsbad has developed a compliance checklist for the preserve managers; the checklist includes a section on adaptive management activities (pilot study design, methods, results, etc.).
14.0	<p>Funding:</p> <p>14.1 MCHP Core Area Participation</p> <p>14.2 Preserve Management and Monitoring Plan</p> <p>14.3 Management of City-owned public lands</p> <p>14.4 Management of private lands in HMP area</p> <p>14.5 Management of Existing Hardline areas</p> <p>14.6 Program Administration</p> <p>14.7 Habitat <i>In-lieu</i>-Mitigation Fees</p>	<p>14.1 The City has met 264.39 acres of its 307.6-acre coastal sage scrub conservation obligation. The City must acquire an additional 43.02 acres, and reimburse Lennar (developer) for the 50.13 acres that were purchased up-front. Reimbursement and acquisition (in that order) will be paid for by <i>in-lieu</i> mitigation fees.</p> <p>14.2 The Preserve Management and Monitoring Plan (now called the Open Space Management Plan or OSMP) was completed in September 2004 using City funds.</p> <p>14.3 In June 2007, the City Council approved a budget of \$670,000 for management of City preserves, the Preserve Steward, annual reporting, public outreach, and preserve fencing for the 07/08 fiscal year. The PAR, PMP, and management contract with CNLM have been approved by the City and Wildlife Agencies, and were approved by the City Council on December 16, 2008. Start-up costs and management for City-owned preserves for the first year of management will be \$344,000, and \$170,000 (which will be adjusted for inflation) per year thereafter.</p> <p>14.4 The City requires all private development projects within the HMP to fully fund perpetual management of associated preserve land prior to issuing a grading permit.</p> <p>14.5 Hardline preserves in existence before final HMP approval are owned and managed by several other entities, including the CDFG and private HOAs.</p> <p>14.6 The City has contracted with Technology Associates (TAIC) to serve as the City’s Preserve Steward, who coordinates management throughout the HMP Preserve, and monitors HMP compliance and management effectiveness.</p> <p>14.7 The City has implemented an <i>in-lieu</i>-mitigation fee program for new development that will pay for the City’s remaining Gnatcatcher Core Area obligations.</p>

Table 10. Summary of City Compliance with Terms and Conditions of the NCCP Take Authorization/Permit

NCCP Permit Terms and Conditions (T&C)	Description of City Compliance
<p>Section 6.1 Conditions A through F are the same as those stated in A through F of the IA, Section 11.3 (See Table 12). They are summarized below.</p> <p>A. Urgency Ordinance –interim HMP enforcement. B. Amend OSC Element of General Plan to incorporate HMP. C. Amend Open Space Ordinance to incorporate Conserved Habitat Areas. D. Amend Municipal Code to incorporate Standards Area compliance. E. Amend General Plan to identify HMP as priority use for open space lands. F. Wetlands Protection Program.</p>	See Table 9, IA Section 11.3.
G. This permit is subject to compliance with the MHCP Volumes I-III, HMP, including Addenda 1 and 2, and the IA.	All project approval within the City is subject to these requirements as a condition of approval.
H. Coverage for thread-leaved brodiaea and approval of the Fox-Miller Project. The conditions are as described in the USFWS 10(a) Permit Condition 7 (Table 12).	See Table 11, USFWS 10(a) Permit Condition 7 for a description of compliance.
<p>I. All monitoring and reporting must comply with MHCP Vol. I and III, and IA Section 12. Annual reports are due no later than December 1 of each year.</p> <p>MHCP Volume II includes the following policies and conditions:</p> <ul style="list-style-type: none"> • Standard Best Management Practices (Appendix B) • General Outline for Revegetation Plans (Appendix C) • Narrow Endemic Species and Critical Population Policies (Appendix D) • Conditions for Estuarine Species (Appendix E) • CEQA requirements for quantifying and mitigating impacts 	See description for Condition G. MHCP Vol. II policies and conditions are reviewed during regular HMP compliance review for all new projects within Carlsbad. In addition, these policies have been integrated and/or referenced in the Guidelines for Biological Studies.

Table 11. Summary of City Compliance with the Terms and Conditions of the Federal ESA Section 10(a)(1)(B) Take Authorization/Permit

FESA 10(a) Permit Terms and Conditions (T&C)	Description of City Compliance
1. All sections of Title 50 Code of Federal Regulations (CFR) 13, 17.22, and 17.32 are conditions of this permit.	Appropriate language has been integrated into the HMP and IA; therefore, compliance with these documents ensures compliance with Title CFR sections.
2. The permittee is subject to compliance with the MHCP, HMP, and IA.	The City complies with all regulations as described in Tables 10 and 11.
3. The amount and form of take are authorized as described below. Referenced tables are from Attachment 2 of the T&C, and are the same as List 1-3 Species in HMP Section C. Coverage for species in HMP Tables 2 and 3 below require the City to submit in writing a request for coverage, including documentation showing compliance.	See next page.

Table 11. Summary of City Compliance with Terms and Conditions of Federal ESA Section 10(a)(1)(B) Take Authorization/Permit *continued*

FESA 10(a) Permit Terms and Conditions (T&C)	Description of City Compliance
<p>3. <i>continued</i></p> <p><u>Table 1. (a) No take authorized for the following species:</u></p> <p><i>Chorizanthe orcuttiana</i> – Orcutt’s spineflower <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> – Blochman’s dudleya <i>Euphorbia misera</i> – Cliff spurge <i>Hazardia orcuttii</i> – Orcutt’s hazardia <i>Quercus dumosa</i> – Nuttall’s scrub oak <i>Pelecanus occidentalis californicus</i> – California brown pelican <i>Falco peregrinus</i> – American peregrine falcon <i>Rallus longirostris levipes</i> - Light-footed clapper rail <i>Sterna antillarum browni</i> – California least tern <i>Charadrius alexandrinus nivosus</i> – Western snowy plover <i>Sterna elegans</i> – Elegant tern</p> <p><u>Table 1. (b) Take authorization is or will be (upon listing) granted for:</u></p> <p>Listed species: <i>Empidonax traillii extimus</i> – Southwestern willow flycatcher <i>Vireo bellii pusillus</i> – Least Bell’s vireo <i>Polioptila californica californica</i> – Coastal California gnatcatcher</p> <p>Not yet listed: <i>Panoquina errans</i> – Salt marsh skipper <i>Euphyes vestris harbisoni</i> – Harbison’s dun skipper <i>Plegadis chihi</i> – White-faced ibis <i>Accipiter cooperi</i> – Cooper’s hawk <i>Pandion haliaetus</i> - Osprey <i>Icteria virens</i> – Yellow-breasted chat <i>Aimophila ruficeps canescens</i> – So. California rufous-crowned sparrow <i>Passerculus sandwichensis beldingii</i> – Belding’s savannah sparrow <i>P.s. rostratus</i> – Large-billed savannah sparrow <i>Cnemidophorus hyperythrus beldingi</i> – Orange-throated whiptail</p> <p><u>Table 2. Take authorization contingent upon other MHCP subarea plans being permitted for the following species:</u></p> <p><i>Acanthomintha ilicifolia</i> – San Diego thornmint <i>Ambrosia pumila</i> – San Diego ambrosia <i>Ceanothus verrucosus</i> – Wart-stemmed ceanothus <i>Dudleya viscida</i> – Sticky dudleya <i>Ferocactus viridescens</i> – San Diego barrel cactus <i>Quercus engelmannii</i> – Engelmann oak</p> <p><u>Table 3. (a) Take authorization contingent upon adequate funding and legal access to manage and monitor the following species:</u></p> <p><i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> – Del Mar manzanita <i>Baccharis vanessae</i> – Encinitas baccharis <i>Brodiaea filifolia</i> – Thread-leaved brodiaea <i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> – Summer-holly <i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> – Del Mar sand aster <i>Pinus torreyana</i> ssp. <i>torreyana</i> – Torrey pine</p>	<p><u>Table 1 (a).</u> No take of these species has been authorized by the City.</p> <p><u>Table 1 (b).</u> The city did not authorize take for any of these species during the current reporting period.</p> <p><u>Table 2.</u> No other MHCP subarea plans have been permitted, and therefore no take of these species has been granted by the City.</p> <p><u>Table 3.</u> Take authorization for thread-leaved brodiaea was granted by the Wildlife Agencies to the City on December 2, 2005 based upon the management required for Fox-Miller property. The Fox-Miller open space property is being managed and monitored by Helix (via annual contract with landowner).</p>

Table 11. Summary of City Compliance with Terms and Conditions of Federal ESA Section 10(a) Take Authorization/Permit *continued*

FESA 10(a) Permit Terms and Conditions (T&C)	Description of City Compliance
<p><u>Table 3. (b) Take is contingent upon (a), described above, and the City receiving legal control over</u> the vernal pools adjacent to the Poinsettia Train Station.</p> <p><i>Eryngium aristulatum</i> var. <i>parishii</i> – San Diego button-celery <i>Myosurus minimus</i> ssp. <i>apus</i> – Little mousetail <i>Navarretia fossalis</i> – Spreading navarretia <i>Orcuttia californica</i> – California Orcutt grass <i>Streptocephalus woottoni</i> - Riverside fairy shrimp <i>Branchinecta sandiegonensis</i> - San Diego fairy shrimp</p> <p><u>Table 3. (b) Take is contingent upon (a) and (b), described above, and upon other</u> MHCP subarea plans being permitted.</p> <p><i>Iva hayesiana</i> – San Diego marsh-elder</p>	<p>The City has not taken legal control of the Poinsettia Lane Vernal Pools and has not requested take for vernal pool species.</p> <p>No other take authorizations have been requested.</p>
<p>4. The FESA Section 10(a) constitutes a Special Purpose Permit for the take of HMP covered species which are listed as threatened or endangered under the FESA, and which are also protected by the Migratory Bird Treaty Act of 1918, as amended. The Special Purpose Permit will be valid for three years after effective date and may be renewed as long as 10(a) permit conditions are being met.</p> <p><i>Sterna antillarum browni</i> - California least tern <i>Empidonax traillii extimus</i> - Southwestern willow flycatcher <i>Vireo bellii pusillus</i> - Least Bell's vireo <i>Passerculus sandwichensis beldingi</i> - Belding's savannah sparrow</p>	<p>The Special Purpose Permit has been in effect during the current reporting period. No take of these species has been granted.</p>
<p>5. The Permittee shall not allow clearing and grubbing in known or potentially occupied California gnatcatcher habitat between February 15 and August 31.</p>	<p>This requirement is included in Municipal Code 21.210.040 and HMP Table 9. Compliance is a condition of approval for every new development project.</p>
<p>6. Specific standards (described in the T&C) must be met if the City proceeds with any of the following plans:</p> <p>(a) Cannon Road Reach 4 (b) Extension of Melrose Drive through the Shelley Property (c) Marron Road through the Sherman Property (Buena Vista Creek Ecol. Res.)</p>	<p>None of these projects have been proposed at this time.</p>
<p>7. To receive coverage for thread-leaved brodiaea, the City must demonstrate that:</p> <p>(a) The Fox-Miller project meets the narrow endemic standards for this critical location and major population of this species; (b) The proposed hardline shown in Addendum 2 (2003) of the HMP is not permitted (it does not meet the MHCP standards); (c) The Wildlife Agencies must concur with the Fox-Miller project proposal, and the conserved area must be managed and monitored to MHCP standards in perpetuity; and (d) If all conditions are met, the Fox-Miller project can be permitted under the HMP through the HMP amendment process</p>	<p>(a) The boundary for the brodiaea population has been established. (b) The boundary was expanded. (c) The Wildlife Agencies have approved the Fox-Miller project. The restoration and non-restoration areas are currently under management and monitoring by Helix via annual contract with the landowner. Long term management of the property will be provided by SDHC when the 5-year restoration areas are signed off by the Wildlife Agencies. (d) Brodiaea coverage was granted by the Wildlife Agencies through a minor amendment December 2, 2005.</p>

Table 11. Summary of City Compliance with Terms and Conditions of Federal ESA Section 10(a) Take Authorization/Permit *continued*

FESA 10(a) Permit Terms and Conditions (T&C)	Description of City Compliance
<p>8. To minimize impacts to the California gnatcatcher, rufous-crowned sparrow, and orange-throated whiptail the City must:</p> <p>(a) Maintain and/or widen the habitat corridor between the City and Oceanside as much as feasible, and</p> <p>(b) If the driving range adjacent to the Kelly/Bartman property is proposed for a different use, the City will ensure that an on-site corridor is established on the driving range property.</p>	<p>(a) The corridor on the NE boundary of Carlsbad is conserved. Along the northern boundary, the Buena Vista Creek ER (Sherman) property was acquired in 2007, resulting in 100% conservation, and the Summit (Kelly-Bartman) property will likely be acquired by CDFG (from TET).</p> <p>(b) No other uses for this property have been proposed at this time.</p>
<p>9. As part of the project review process, a qualified biologist shall survey for all species with immediate and conditional coverage.</p>	<p>The City has included this as a condition of approval for all new projects.</p>
<p>10. The City will contact the USFWS Carlsbad Office immediately regarding any violations or potential violations of the FESA or the Migratory Bird Treaty Act.</p>	<p>The City regularly communicates with the USFWS on regulatory issues, and contacts the appropriate personnel immediately upon learning of any potential problems.</p>
<p>11. The City will notify the USFWS within one working day of finding any dead, injured, or sick threatened/endangered species.</p>	<p>No such individuals have been reported to or observed by the City.</p>
<p>12. All monitoring and reporting for this permit shall be in compliance with the MHCP (Vol. I and III) and the IA (Section 12).</p>	<p>See IA Section 12 discussion in Table 10 above for compliance information.</p>
<p>13. A copy of this permit must be on file with the City, its authorized agents, and third parties under the jurisdiction and direct control of the City.</p>	<p>A copy of this permit is on file with the City and is available to any interested parties.</p>

Table 12. Compliance with Zone-Wide Standards through Year 5

Zone	Zone-Specific Standard	Current Status
All Zones	A minimum of 67% of coastal sage scrub and 75% of the gnatcatchers shall be conserved overall within the Standards Areas.	Total coastal sage scrub habitat within Standards Areas: 182.6 acres. Coastal sage scrub loss = 11.4 acres (6.2%). Coastal sage scrub gains = 49.4 acres (27.0%). An additional 72.0 acres must be conserved to meet 67% conservation in the Standards Areas. Occupied gnatcatcher habitat is mitigated at 2:1, therefore there will be no net loss of gnatcatcher habitat within Standards Areas. The 75% standard is applied to every project individually.
Zone 1	Preserve at least 50% of coastal sage scrub and avoid areas occupied by gnatcatchers. Applies to several vacant lots on north shore of Agua Hedionda Lagoon and a larger, vacant in-fill lot SW of El Camino Real and Kelly Drive.	Vacant lots on north shore of Agua Hedionda: no projects have been finalized for these parcels. In-fill parcel: Aura Circle property was changed to a Proposed Hardline preserve in the HMP mapping during Coastal Comm. Processing; however, the HMP text was not corrected.
Zone 2	1. Kelly/Bartman property: 50% of this property shall be conserved and must form a continuous corridor from the SE corner of the property to the northern edge. 2. Spyglass property: grasslands impacted on this property shall have offsite mitigation at 2:1 ratio.	The Kelly-Bartman property, aka the Summit, is an Existing Hardline preserve that was approved with 50% conservation including an open space corridor, from the SE to the northern site boundary. The Spyglass property has been developed and grassland impacts were mitigated at a 2:1 ratio through restoration at Carlsbad Highlands Mitigation Bank. This project was compliant with all other standards.

Table 12. Compliance with Zone-Wide Standards through Year 5 *continued*

Zone	Zone-Specific Standard	Current Status
Zone 8	1. Kirgis property: a maximum of 25% can be developed. 2. Callaghan property: a maximum of 50% can be developed. No impacts to narrow endemic species on either property.	Kirgis property: the property was approved with 75% percent conservation; however, no grading permit has been issued. Callaghan property: no final map has been approved for this property.
Zone 14	Areas of upland habitat outside Linkage B may be taken in exchange for restoration and enhancement inside of the linkage as long as the result is conservation of at least 67% coastal sage scrub and associated gnatcatcher populations within southern portions of the zone.	Projects: Robertson Ranch East was approved by the City and Wildlife Agencies in 2007. Out of a total of 197.3 acres of coastal sage scrub in Zone 14, 11.3 acres (5.7%) has been impacted. A total of 154.0 acres (78%) of the coastal sage scrub has already been conserved.
Zone 15	Maintain and enhance habitat linkages across Linkage C and adjoining Cores 3 and 5. Areas of upland habitat outside Linkage C may be taken in exchange for restoration and enhancement inside of the linkage as long as there is a no net loss of coastal sage scrub and associated gnatcatcher populations within southern portions of the zone.	Terraces at Sunny Creek occurs within Core Area 5 in the southern portion of Zone 15. No net loss of coastal sage scrub has occurred. No other projects have final City/Wildlife Agency approval.
Zone 20	Create continuous habitat through Linkage F between Core Areas 4 and 6. No net loss of coastal sage scrub or maritime succulent scrub within standards areas of the zone.	Projects: Emerald Pointe and North Coast Calvary Chapel. Both projects were processed through a Consistency Finding and approved by the City and Wildlife Agencies. No net loss of coastal sage scrub or maritime succulent scrub occurred.
Zone 21	Ensure habitat connectivity and wildlife movement east-west across the zone.	The Manzanita project was a Proposed Hardline preserve area in the HMP, and it was approved by the City and Wildlife Agencies. It provides east-west connectivity from El Camino Real to the project boundary.
Zone 25	At least 75% of the Sherman property must be conserved.	As of March 2007, 100% of the Sherman property (Buena Vista Creek Ecological Reserve) has been conserved.

1.6 Other Implementation Activities

1.6.1 Guidelines and Policies

In support of the HMP, the City and Preserve Steward are working together to develop a series of guidelines that will clarify HMP-related policies and regulations for staff, private developers, consultants, and the general public. These documents do not create additional policies or requirements; rather, they are intended to assist users in understanding and fulfilling HMP requirements. The following guidelines were completed during the current reporting period:

- Guidelines for Habitat Restoration and Creation - Outlines methods, management, monitoring, and success criteria for restoration projects in the preserve.
- Guidelines for Preserve Management - Provides compliance checklist and guidance for preserve managers.

1.6.2 Public Outreach

Public outreach activities conducted during the current year include the following:

- Conducted HMP annual public workshop and guided field trip at the Agua Hedionda Discovery Center on April 25, 2009.
- Gave HMP overview presentation to Partners in Biodiversity group on July 28, 2009.
- Created new quarterly HMP newsletter in the fall of 2009. Sent newsletter via email to extensive mailing list and posted it on the HMP website.
- The City was awarded TransNet Environmental Mitigation Program (EMP) grant (described in more detail below) from SANDAG. The grant project consists of a large public outreach component, which incorporates the development of public outreach materials, hosting public meetings and events, and developing signage for the Calavera Hills area preserves.
- Conducted workshop on identification of native and non-native plants to Department of Parks and Recreation trail volunteers on September 12, 2009.
- Assisted Department of Parks and Recreation in hosting National Public Lands Day event at Lake Calavera Preserve on September 26, 2009.
- Created a 11" x 17" trifold brochure to educate the public about (a) management activities and other events occurring at Lake Calavera Preserve, (b) native plants and animals, (c) preserve rules, (d) how to be a good land steward, with special attention to those who live adjacent to a preserve, (e) other adjacent preserves in the area, and (f) an aerial map of the Lake Calavera Preserve.
- Coordinated with Department of Parks and Recreation, CNLM, San Diego Mountain Biking Association, Preserve Calavera, and members of the public on the Lake Calavera Trails Master Plan.
- Conducted survey of preserve users to determine their current knowledge base and what users want to learn more about.

1.6.3 Grant Funded Preserve Enhancement

In September of 2009, the City of Carlsbad was awarded a TransNet EMP grant by SANDAG to provide access control, habitat restoration, and public outreach in the Calavera Hills area, which includes Lake Calavera Preserve, Carlsbad Highlands

Ecological Reserve, and Calavera Heights Mitigation Parcel. Access control will include perimeter fencing, interior signage, and gates at key locations to guide users to stay on authorized trails, to discourage access on decommissioned trails, and as a deterrent to illegal dumping. These measures are expected to be implemented in 2010. Habitat restoration consists of revegetating 5 acres of non-native grassland and some decommissioned trails to Diegan coastal sage scrub habitat. Restoration, using the seed imprinting method, is expected to be installed in time for the 2009/2010 rainy season. The public outreach component, described in the previous section, will actively use volunteers and education to increase public awareness. Public outreach has already begun, as described above.

2.0 Management

2.1 Key Management Activities

2.1.1 City-Owned Preserves

All City-owned preserves have been actively managed by CNLM since December, 2008. The City preserves consist of 13 properties scattered throughout Carlsbad totaling 611 acres (Figure 1). Management activities this year included evaluation, assessment, and treatment of medium and zero tolerance invasive non-native plant species, enforcement patrols, installation of signs and kiosks, participation in volunteer events, and coordination with police and fire departments on enforcement issues. Monitoring included sensitive bird and avian community surveys on each property, and focused species surveys for Blochman's Dudleya (*Dudleya blochmaniae*).

2.1.2 Other Preserves

Existing Hardline Areas (i.e., areas that were already conserved at the time the HMP was approved) will be managed according to pre-existing management funding and arrangements. The majority of Existing Hardline Areas are managed by CDFG and various HOAs. Subject to available funding, and in consultation with the USFWS, CDFG will prepare and implement preserve management plans for habitat areas under its jurisdiction (IA Section 15.2). Most of the HOA lands are managed at a property maintenance level, which generally consists of fence maintenance and trash removal.

Areas conserved since approval of the HMP will be managed and monitored as required by the HMP and MHCP (Level 3, as defined in the MHCP). The majority of preserves in this category are managed by CNLM. In addition, as of November 2008, San Diego Habitat Conservancy (SDHC; previously Helix Community Conservancy) initiated active management on the Emerald Pointe Estates Preserve. First year management activities included regular site inspections, sign installation, baseline documentation, species surveys, and invasive species removal.

Ongoing management and monitoring activities on preserves throughout the HMP are summarized in Appendix B. In addition to the Preserve Manager, local organizations and volunteer groups often contribute significantly to preserve management, biological monitoring, and public outreach. As such, Appendix B also highlights activities conducted by these organizations. Details about active management and monitoring are

available in the annual reports submitted by Preserve Managers, which are posted online at <http://www.carlsbadhmp.org/documents.html>.

2.2 Major Threats and Issues of Concern

2.2.1 Ongoing Threats

The top threats for all preserves in Carlsbad have not changed over the last five years. These threats are (1) unauthorized human access, and (2) invasive species. Annual invasive species removal programs, regular patrols, fencing, signage, gates, and public education are the ongoing management actions taken by preserve managers to address these threats. However, the HMP Preserve is a highly fragmented system surrounded by dense urban development. As such, the pressure on the preserve system from edge effects (including invasive species) and public use is much greater than it would be on a larger, more intact system surrounded by rural development. The most difficult problems to solve are the effects of unauthorized access, which include trails that damage and further fragment the habitat, presence of parasitic cowbirds from equestrian use, trash and illegal dumping, disturbance of wildlife from off-leash dogs and outdoor cats, and public safety issues.

The most pressing invasive species issues in Carlsbad are described below, although not necessarily in the order of threat magnitude (Vinje and McConnell 2009).

1. **Purple false brome (*Brachypodium distachyon*)** is a major threat in habitat occupied by thread-leaved brodiaea (*Brodiaea filifolia*) and San Diego thornmint (*Acanthomintha ilicifolia*). It leaves a very thick thatch cover and outcompetes most native species. Based on the research being conducted by CNLM, it appears that controlling this species and removing the biomass may have a beneficial impact on thread-leaved brodiaea and other native species growing with it.
2. **Veldt grass (*Ehrharta* spp.)** is a threat in sandstone soils that support southern maritime chaparral and some coastal sage scrub areas. These species completely cover open ground, preventing other species from emerging. It leaves a very thick thatch cover and may lead to an increase in fire frequency where it has been growing for a long period of time.
3. **Crete weed (*Hedypnois cretica*)** is a threat in habitat occupied by San Diego thornmint and other sensitive associates that usually co-occur with thornmint, such as Palmer's grappling-hook (*Harpagonella palmeri*) and clay bind weed (*Convolvulus simulans*). Crete weed appears to be problematic in nonnative and

native grassland areas as well. In several areas that once supported San Diego thornmint, Crete weed has been observed covering 100% of the open ground (J. Vinje, CNLM, pers. comm.).

4. **Saharan mustard (*Brassica tournefortii*)** is a threat to coastal sage scrub. It tends to outcompete native forbs and grasses, and, based on the standing biomass left over after it has flowered and set seed, may lead to an increase in fire frequency where it has been growing for a long period of time.
5. **Ward's weed (*Carrichtera annua*)**, an annual mustard, is an invasive species new to California (Vinje 2007). It has become widespread in the rangeland of southern Australia, which has a similar climate to southern California. In Carlsbad, Ward's weed is a threat to coastal sage scrub and clay lens habitats in California that are occupied by sensitive plant species, such as thornmint and Palmer's grappling-hook, by completely outcompeting native forbs and grasses, and spreading very rapidly.
6. **Purple fountain grass (*Pennisetum setaceum*)** is a perennial bunch grass often planted as an ornamental. This species is very widespread in upland habitats throughout San Diego County, including Carlsbad. Seeds are easily spread by vehicles, humans, livestock, and wind (Lovich 2009). Thick infestations of fountain grass outcompete native grasses and forbs. In addition, fountain grass is well adapted to fire, which may contribute to its spread.
7. **Pampas grass (*Cortaderia selloana*; *Cortaderia jubata*)** is arguably the greatest threat to wetland and riparian habitats in Carlsbad. Pampas grass is commonly used as an ornamental throughout California. It has escaped cultivation and spread along sandy, moist ditch banks throughout coastal regions of southern California below 1,000 feet. In conservation areas, pampas grass chokes out native vegetation and creates a fire hazard with excessive build-up of dry leaves, leaf bases, and flowering stalks (DiTomaso 2009).
8. **Perennial pepperweed (*Lepidium latifolium*)** invades brackish to saline or alkaline wetlands throughout California. It is also found in other native habitats where the soil is slightly alkaline or saline. Perennial pepperweed is an aggressive invader, which forms dense monospecific stands that outcompete native and other non-native species.
9. **Fan palms (*Washingtonia robusta*) and Canary Island date palms (*Phoenix canariensis*)** are also extremely invasive in wetland areas, crowding out native vegetation. These plants are very difficult to remove, and may be a fire hazard due to untrimmed fronds.

10. “**Killer algae**” (*Caulerpa taxifolia*), a highly invasive tropical alga, was discovered in the Agua Hedionda Lagoon in 2000. This was the first known observation of the Mediterranean strain of this species in the Western Hemisphere. This species is extremely fast growing and, if allowed to become permanently established, can destroy and replace coastal marine life. Given its ability to grow so rapidly (more than an inch a day), even a tiny piece of the plant can become an ecological menace (Agua Hedionda Lagoon Foundation). It is believed that the original infestation came from someone emptying an aquarium into the lagoon or a storm drain without realizing the consequences. Aggressive action by the Southern California *Caulerpa* Action Team, eradicated this species by 2002 and no evidence of reinfestation has been detected since then. However, given the potential for this invasive alga to quickly overwhelm the ecosystem, continued vigilance in all of the Carlsbad lagoons is essential.

Preserve-specific threat assessments for CNLM-managed properties can be found in CNLM’s preserve-specific annual reports, which can be obtained from the HMP website at <http://www.carlsbadhmp.org/documents.html>. For information about how specific threats are being addressed on CNLM-managed properties, refer to the annual work plans, which are also posted on the website.

2.2.2 Potential Emerging Threats

Invasive Plant Species

According to CNLM Preserve Managers, potential emerging threats (threats that have not had devastating effects on native habitat or species yet, but have a high potential of becoming a major threat) from invasive plant species in Carlsbad include **smilo grass** (*Piptatherum miliaceum*), which is problematic along watercourses, **natal grass** (*Melinis repens*), and **stinkwort** (*Dittrichia graveolens*). These species can take over an area completely, and require active patrolling, locating, and eradication.

Threats to Native Oak Trees

There are two emerging threats to native oak trees that have come to the attention of land managers in San Diego County. One of these threats, the **Gold-spotted oak borer** (**GSOB; *Agrilus coxalis***) is an aggressive woodborer species that was linked in 2008 to oak mortality that has been occurring since 2002 in San Diego County (Center for Invasive Species Research). Repeated attacks over several years can kill mature trees. The GSOB infestation has the potential to devastate oak populations in California, including those present in Carlsbad. The beetle is new in California, but has long been

present in Arizona, Mexico, and Guatemala. Within the county, GSOB have been observed mostly in the Descanso Ranger District area, but observations have been made in the vicinity of La Jolla, Lake Henshaw, and Santa Ysabel as well. Once a tree is infected, there may be little that can be done to save the tree; however, research is currently being conducted to identify management strategies, such as stem and soil injections of systemic insecticides. To deter spread of this pest, the following actions have been recommended by the California Department of Forestry and Fire Protection (Camilli 2009): (a) educating the public about not transporting oak logs and firewood, (b) covering infested wood with 6-mm clear plastic tarps, covering edges with soils, and exposing to sun to kill larvae and pupae, (c) chipping infested wood into 2.5 cm or smaller pieces, (d) piling and burning infested wood, (e) debarking logs. See the Center for Invasive Species Research (http://cistr.ucr.edu/goldspotted_oak_borer.html) for more information. Additional information will be posted on the HMP website.

A second emerging threat to native oaks Carlsbad is **fungus**. Studies are being conducted by the University of California Riverside Department of Plant Pathology and Microbiology in southern California to determine the identity and impact of fungus species that attack and kill native oak trees. Oak die-offs in Spain and Portugal have some of the same species of fungus that have been observed in oak trees in north San Diego and western Riverside Counties (K. Preston 2009). Initial results are expected to be published soon, and will be posted on the HMP website when available. This potential threat is of particular concern in Carlsbad, as there have been recent oak tree deaths in Carlsbad Oaks North Preserve, which may be the result of a fungus infection (Spiegelberg 2009).

2.3 Enforcement

2.3.1 City Enforcement Efforts

The City is continuing to take a multi-pronged approach to the enforcement within the HMP Preserve. This approach includes education, deterrence, and punitive actions. With regard to education, the City, through the TransNet EMP grant described earlier in this report, developed and distributed public outreach materials related to the Lake Calavera and surrounding preserves. These areas have been historically impacted by a variety of human activities including unauthorized trail use by pedestrians and mountain bikes, hunting, and campfires. The City provided public education during the Public Lands Day on September 26, 2009 held at the Lake Calavera Preserve. Activities included a discussion of the negative impacts of invasive species and human actions on the native habitat, and the installation of a kiosk to provide educational materials. In addition, the City, as part of the TransNet EMP grant, began coordination of strategic fencing around

and within the Lake Calavera Preserve and CDFG's Calavera Heights Ecological Reserve to deter unauthorized entry into sensitive areas and allow the revegetation of unauthorized trails.

With regard to punitive actions, the City's HMP Ordinance (Chapter 21.210 of the Zoning Ordinance) codifies the enforcement measures and remedies available for enforcement of unauthorized habitat take. Due to the overlapping jurisdiction for habitat enforcement, the City works with the Wildlife Agencies, as well as the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission where applicable, when reports of potentially unauthorized habitat impacts are received. No enforcement cases were opened in the current reporting period.

While the above referenced ordinances apply to unauthorized habitat take, many impacts to the local preserves such as erosion, trash disposal, and excessive noise occur simply from unauthorized entry or activities. The Preserve Managers do not always have adequate resources to address these trespassing issues and have relied upon support from the City of Carlsbad Police Department (CPD). During the reporting year, CPD staff continued to work with the local Preserve Managers to improve coordination. The Police Department has developed and circulated a General Enforcement Agreement to all preserve owners to allow local police to enter the property and cite infractions. According to Preserve Managers and local residents, these measures have greatly reduced the unauthorized human access and destructive human activities within many preserves throughout the City, although not all problems have been eliminated.

2.3.2 CNLM-Managed Properties

CNLM (3 Preserve Managers and 1 Ranger) patrolled their preserves on a regular basis, sometimes during management activities and sometimes during directed patrolling efforts. Patrols were concentrated during the latter part of the week and weekends. During the summer, CNLM also hired part-time Rangers who added additional patrols on weekends. During the patrolling efforts, CNLM spent a considerable amount of time picking up trash, fixing signs, gates and fences, and blocking off and patrolling trails that are not part of the designated trail system. Specific problem areas are described below.

Lake Calavera (City of Carlsbad) The Center started managing Lake Calavera in December of 2008. This area has been used by numerous residents over many decades for a variety of uses that are detrimental to the biological resources. CNLM was asked to prepare and install signage and start regular patrols. In the winter months, CNLM spent considerable time pursuing and stopping children from creating dirt bike jumps. Although

no arrests were made, tools were confiscated, parents were notified, and many jumps were knocked down. In addition, based upon CNLM observations and coordination, the Oceanside Police Department cited two groups of motorcyclists; several other, motorcyclists were asked to leave the property. Other unwanted activities observed by CNLM included poaching, javelin throwing, radio-controlled planes and cars, and horse-back riding. By summer, the primary problems were fishing and swimming in the lake and CNLM spent considerable time enforcing a 'No Swimming or Fishing' policy. Due to differing areas of responsibility between CNLM and the Carlsbad Municipal Water District, CNLM was directed to not enforce the 'No Swimming/Fishing' policy, unless there was damage to habitat along the edges of the lake.

Box Canyon (La Costa Villages). This year, CNLM used its Preserve Manager, Ranger and two part-time Rangers (who are full-time Rangers for the City of San Diego and County of San Diego) to patrol the Ridgeline Trail and the Box Canyon area every week from early May to late October (as well as regular patrols during the other times of year). Preserve Managers were mostly "on-call" from Monday-Thursday (i.e., responding to dispatch or neighbor calls) but were stationed on site from Friday to Sunday at various times of the day. Early in the summer, based upon CNLM observation and coordination, the Carlsbad Police Department issued approximately 20 citations when trespassers were caught in Box Canyon, but as the summer progressed and trespassing decreased, the majority of the effort was placed on deterring the public from entering Box Canyon and issuing warnings. Trespassing into Box Canyon was observed and individuals were deterred almost every week.

Denk Mountain (La Costa Villages). The Denk Mountain area (east of Rancho Santa Fe Road) has about 10 miles of maintained trails. The trails get about 75-100 mountain bikers per day, as well as many hikers and dog walkers. The number of bikers has increased dramatically in the last few years. CNLM spent considerable time educating bikers and working with them to improve trails and minimize site damage.

Calavera Hills/Robertson Ranch. CNLM manages several hundred acres west of Calavera Mountain. As CNLM started patrolling Lake Calavera, they observed that many of the unwanted activities that were observed at Lake Calavera had shifted towards the Village U and W areas of Calavera Hills open space. Children with air-soft guns cleared vegetation and created war game areas in a number of areas. In addition, CNLM caught individuals camping on the property, and others clearing vegetation to create encampments. CNLM spent considerable time patrolling this area and fixing problems. At Village H, CNLM observed that trail users were going off the trail that the City

opened one year earlier and into the sensitive grassland areas. CNLM fenced the area off in October of 2009 and continues to evaluate the problem.

2.3.3 CDFG-Managed Properties

CDFG wardens patrol the coastal areas primarily looking for unauthorized fishing or hunting activity, but also conduct sweeps in the western and central basins for unauthorized use, including horseback riders, ATVers, and bikers. The Carlsbad Police Department also assisted in the winter by patrolling the trails at Batiquitos Lagoon (located directly adjacent to the Batiquitos Lagoon Ecological Reserve). Volunteers with the Batiquitos Lagoon Foundation provided information (including preserve rules) to trail users and visitors to the nature center. In addition, signs and kiosks are located at trail entrances and around the least tern nesting sites and other sensitive areas that are off-limits to the public.

3.0 Financial Summary

3.1 City Funding in Support of HMP

The City uses two sources of funding to support implementation of the HMP: (1) permanent funding that has been allocated specifically for management of City lands and HMP coordination, and (2) existing resources, including planning and administrative staff. The following sections describe these funding sources and how they are being used.

3.1.1 HMP Implementation

The majority of the City's ongoing costs to support HMP implementation are activities required by the HMP or the IA. Two of the City's main responsibilities are:

- Oversight of the HMP Preserve, and
- Direct, active management of 611 acres of preserve land owned by the City.

To accomplish the first goal, the City dedicated a senior-level staff planner and provides other administrative support for HMP coordination. The City also contracted with TAIC to develop guidelines to (1) assist City planners, developers, biologists, and the public through the HMP process; and (2) to serve as the City's Preserve Steward, coordinating management throughout the HMP Preserve, and monitoring HMP compliance and management effectiveness. The annual cost of program administration was estimated to be approximately \$79,750 in 2004 dollars (IA, page 24), which equals approximately \$91,266 in 2009 dollars (U.S. Department of Labor Consumer Price Index). The City provides \$125,000 in annual administrative costs, which is continuously funded through the City's annual budget appropriation process.

The second goal is being accomplished through the efforts of CNLM, a non-profit preserve management company. The annual cost for implementing the HMP preserve maintenance was initially estimated to be \$181,200 in 2004 dollars (IA, page 23), which equals approximately \$207,365 in 2009 dollars. Actual start-up costs and management for the first year will be \$344,000. Annual maintenance costs thereafter will be \$170,000. Installation and maintenance of fencing will be provided by the City; therefore, the cost for fencing is not included.

3.1.2 *In-lieu* Habitat Mitigation Fees

As described in Section 1.3.6, *in-lieu* habitat mitigation fees are collected from developers for project-related impacts to certain types of native habitat outside of the preserve. These habitats include all habitat types in Groups E and F (non-native grassland, disturbed lands, eucalyptus, and agricultural lands) and some habitat types in Group D (unoccupied coastal sage scrub, coastal sage/chaparral mix, and chaparral, except southern maritime chaparral). These fees will be used to fulfill the City's obligation to acquire, protect, and manage the Gnatcatcher Core Area. As shown in Table 13, two mitigation fees (totaling \$83,553.33) have been paid during the current reporting period and \$27,753.37 in interest has accrued, bringing the account total to \$1,057,072.42. No withdrawals have been made from this account to reimburse or acquire acreage in the Core Area.

**Table 13. *In-lieu* Mitigation Fee Account Activity during Current Reporting Period
Nov. 2008 – October 2009**

Date	Description	Habitat Impacted	Total
11/01/08	Beginning Fund Total		\$945,765.74
	Fees Paid		
11/14/08	Hagey Residence	0.06 acres of non-native grasslands; 0.20 acres of disturbed lands	\$1,364.20
2/27/09	Carlsbad Paseo	6.29 acres of non-native grasslands; 0.55 acres of disturbed lands	\$82,189.13
	Interest Earned		\$27,753.37
10/31/09	Account Balance		\$1,057,072.42

3.1.3 Other City Funding that Benefited the HMP Preserve

The City was awarded a TransNet EMP grant in the amount of \$286,667 to conduct habitat restoration, access control, and public outreach within Calavera Hills area preserves, including Lake Calavera Preserve, Carlsbad Highlands Ecological Reserve, and the Calavera Heights Mitigation Parcel. The City is providing \$205,456 in matching funds by providing labor (staff time and volunteers) and materials (fencing and gates). See Section 1.6.3 for details.

Additionally, the Agricultural Conversion Mitigation Fee Program provided grants for habitat enhancement and land acquisition. BLF was awarded \$98,572 for wetland restoration, trail planning and building, invasive species removal on the former Mitsuchi

Property, and preliminary work for the acquisition of the Ayers Property. California State Parks was awarded \$52,000 for coastal bluff restoration and rehabilitation, fencing, and trail construction. Funds for this City program were generated by fees paid by developers when certain agricultural lands in the Coastal Zone were converted to development.

3.2 Status of Preserve Management Endowments

The endowment activity and status for preserves funded through endowments are given in Table 14. This includes all preserves managed by CNLM and SDHC, Buena Vista Creek Ecological Reserve, and Batiquitos Lagoon Ecological Reserve (other ecological reserves owned and managed by CDFG are funded through annual appropriations of regular CDFG funds). Totals are only given for CNLM-managed properties because complete information has not been received for the other preserves. During this last year, the U.S. economy experienced a severe recession, and endowment funds were greatly impacted. However, with careful planning, cost cutting, and a slight economic recovery during the latter part of the year, the endowment accounts remained largely intact overall.

Table 14. Endowment Status for HMP Preserves

Site Name	Preserve Manager ¹	Inception Date	Original Endowmt	Inflation Adj. Endmt 10/31/09	FY08-09 Budget	FY08-09 Expend.	Endowmt 10/31/09	Initial & Capital 10/31/09	Total Funds as of 10/31/09
Buena Vista Creek Ecological Reserve	CNLM	4/2007	\$776,644	\$800,549	\$26,537	\$26,837	\$671,344	\$88,349	\$759,693
Calavera Hills II/ Robertson Ranch E ⁴	CNLM	6/2006	\$1,650,293	\$1,733,070	\$58,416	\$61,294	\$1,552,228	\$101,096	\$1,653,324
Carlsbad Oaks North	CNLM	3/2006	\$1,020,311	\$1,070,806	\$32,332	\$38,649	\$932,368	\$18,458	\$950,826
Emerald Pointe	SDHC	12/2006	\$194,068	\$206,566	Unknown	\$13,521	\$158,696	\$12,628	\$158,696
Kelly Ranch	CNLM	3/2002	\$296,125	\$367,102	\$11,040	\$14,026	\$326,729	\$0	\$326,729
La Costa Villages	CNLM	2/2002	\$1,364,400	\$1,679,400	\$50,108	\$72,968	\$1,443,238	\$0	\$1,443,238
Nelson Parcel	CNLM	6/2001	\$72,180	\$83,660	\$2,325	\$3,048	\$70,368	\$0	\$70,368
N. County Habitat Bank	CNLM	5/2008	\$427,004	\$422,959	\$16817	\$14,341	\$355,292	\$61,728	\$417,020
TOTAL (CNLM-managed Preserves)			\$5,606,957	\$6,157,546	\$197,575	\$231,163	\$5,351,567	\$269,631	\$5,621,198

¹ CDFG = California Department of Fish and Game, CNLM = Center for Natural Lands Management, SDHC = San Diego Habitat Conservancy.

² Of this amount, approximately \$3 Million is being held by the City of Carlsbad, and will become available in 2027.

³ This is the amount as of 10/31/08. Current information has not been received.

⁴ CNLM merged funds for these two projects to provide a cost savings for Robertson Ranch. East Village

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Appendix A

Habitrak Report Summary of Gains and Losses Years 1 - 5

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Summary of Project Gains

MHCP West San Diego County

Baseline - Year 5

From 11/1/1899 To 10/31/2009

City of Carlsbad

Project Tracking #	Project Name	Location	Applicant	APN	Date Cons.	Status	Mgmt Resp.	Conservation Type	Mit. Bank Credits Used	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
001-002	Aviara Pointe		Aviara		10/29/2004	Gain	Other	In-Lieu Fees	0.00	0.00	0.00	0.00
001-043	Black Rail Ridge		Black Rail Ridge		5/18/2004	Gain	Other	In-Lieu Fees	0.00	0.00	0.00	0.00
001-003	Bressi Ranch		Bressi Ranch		1/24/2003	Gain	Unknown	Easement	0.00	0.00	153.75	153.75
001-029	Buena Vista Creek Ecological Reserve		Buena Vista Creek Ecological Reserve		3/31/2007	Gain	Non-Profit	Acquisition	0.00	0.04	133.18	133.22
001-004	Calavera Heights Village K		Calavera Heights		1/2/2002	Gain	Non-Profit	Easement	0.00	0.01	33.34	33.35
003-002	Calavera Hills Village R		Calavera Hills		6/1/2006	Gain	Non-Profit	Easement	0.00	3.35	0.00	3.35
002-052	Carlsbad Highlands Ecological Reserve		Carlsbad Highlands Ecological Reserve		5/22/2002	Gain	State	Acquisition	0.00	0.00	101.60	101.60
001-006	Carlsbad Municipal Golf Course		Carlsbad Municipal Golf Course		12/31/2008	Gain	Non-Profit	Easement	0.00	0.09	207.02	207.12
001-007	Carlsbad Oaks North		Carlsbad Oaks North		11/12/2004	Gain	Non-Profit	Acquisition	0.00	0.01	221.27	221.28
001-008	Carlsbad Raceway		Carlsbad Raceway		12/1/2004	Gain	Unknown	Easement	0.00	0.00	43.29	43.30
002-049	Cassia Professional Offices		Cassia Professional Offices		6/30/2006	Gain	Non-Profit	Easement	0.00	1.17	0.00	1.17
001-019	Emerald Point Estates		Emerald Point		3/21/2006	Gain	Non-Profit	Easement	0.00	0.01	9.41	9.43
001-000	Existing Hardline Conservation Area		Existing		1/1/1901	Gain	Local	Easement	0.00	1.10	4,380.66	4,381.77
001-009	Fox-Miller		Fox-Miller		12/28/2005	Gain	Local	Easement	0.00	0.00	16.33	16.33
001-010	Hieatt		Hieatt		2/3/2005	Gain	Unknown	Easement	0.00	0.01	6.50	6.51
001-011	Kelly Ranch		Kelly Ranch		6/18/2003	Gain	Non-Profit	Easement	0.00	0.00	57.77	57.77
002-046	Lake Calavera Mitigation Parcel		Lake Calavera Mitigation Parcel		12/31/2008	Gain	Non-Profit	Easement	0.00	0.00	250.90	250.91
002-044	Macario Canyon		City of Carlsbad		12/31/2008	Gain	Non-Profit	Easement	0.00	0.00	21.35	21.35
001-012	Manzanita		Manzanita		9/26/2003	Gain	Unknown	Easement	0.00	0.00	30.73	30.73
002-051	Mitsuuchi		Batiquitos Lagoon Foundation		7/10/2008	Gain	Non-Profit	Acquisition	0.00	8.97	0.00	8.97
001-013	North Coast Calvary Chapel		North Coast Calvary Chapel		11/17/2004	Gain	Unknown	Easement	0.00	0.02	10.69	10.71

City of Carlsbad

Project Tracking #	Project Name	Location	Applicant	APN	Date Cons.	Status	Mgmt Resp.	Conservation Type	Mit. Bank Credits Used	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
002-048	Palomar Forum		Palomar Forum		6/25/2004	Gain	Unknown	Easement	0.00	0.01	1.42	1.43
001-028	Robertson Ranch - East		Robertson Ranch - East		1/16/2007	Gain	Non-Profit	Easement	0.00	0.02	71.64	71.66
003-003	Robertson Ranch - West		Robertson Ranch - West		1/16/2007	Gain	Non-Profit	Easement	0.00	1.15	35.47	36.62
001-017	Spyglass		Spyglass		7/3/2001	Gain	Unknown	Easement	0.00	0.00	0.00	0.00
001-040	Steiner Property		Steiner Property		1/5/2000	Gain	Other	In-Lieu Fees	0.00	0.00	0.00	0.00
001-041	Tabata 2001		Tabata		1/17/2001	Gain	Other	In-Lieu Fees	0.00	0.00	0.00	0.00
001-042	Tabata 2004		Tabata		9/1/2004	Gain	Unknown	Easement	0.00	0.00	0.42	0.42
001-018	Terraces at Sunny Creek		Terraces at Sunny Creek		4/26/2000	Gain	Unknown	Easement	0.00	1.18	15.29	16.47
002-045	Veterans Park		City of Carlsbad		12/31/2008	Gain	Non-Profit	Easement	0.00	0.00	18.95	18.95
003-001	Villages of La Costa West		Villages of La Costa West		1/16/2007	Gain	Non-Profit	Easement	0.00	3.37	0.00	3.37
002-047	Waters End		Waters End HOA		5/15/2002	Gain	Private	Easement	0.00	3.36	0.00	3.36
001-020	Yamamoto		Yamamoto		4/17/2006	Gain	Other	In-Lieu Fees	0.00	0.00	0.00	0.00
Total for Agency: City of Carlsbad									0.00	23.90	5,821.00	5,844.90

Summary of Project Losses

MHCP West San Diego County

Baseline - Year 5

From 11/1/1899 To 10/31/2009

City of Carlsbad

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
001-002	Aviara Pointe		Aviara		10/29/2004	Loss	0		0.00	4.53	4.53
001-043	Black Rail Ridge		Black Rail Ridge		5/18/2004	Loss	0		0.00	3.16	3.16
001-003	Bressi Ranch		Bressi Ranch		1/24/2003	Loss	0		419.22	0.00	419.22
001-004	Calavera Heights Village K		Calavera Heights		1/2/2002	Loss	0		16.16	0.00	16.16
002-052	Carlsbad Highlands Ecological Reserve		Carlsbad Highlands Ecological Reserve		5/22/2002	Loss	0		0.00	0.00	0.00
001-006	Carlsbad Municipal Golf Course		Carlsbad Municipal Golf Course		12/6/2004	Loss	0		188.12	0.02	188.15
001-007	Carlsbad Oaks North		Carlsbad Oaks North		11/12/2004	Loss	0		195.44	0.00	195.45
001-008	Carlsbad Raceway		Carlsbad Raceway		12/1/2004	Loss	0		92.61	0.00	92.61
002-049	Cassia Professional Offices		Cassia Professional Offices		6/30/2006	Loss	0		1.51	0.00	1.51
001-019	Emerald Point Estates		Emerald Point		3/21/2006	Loss	0		0.07	6.42	6.49
001-000	Existing Baseline Loss		Existing		1/1/1901	Loss	0		0.00	0.00	0.00
001-009	Fox-Miller		Fox-Miller		12/28/2005	Loss	0		35.62	0.00	35.62
001-010	Hieatt		Hieatt		2/3/2005	Loss	0		7.11	0.00	7.11
001-011	Kelly Ranch		Kelly Ranch		6/18/2003	Loss	0		133.85	0.61	134.46
002-046	Lake Calavera Mitigation Parcel		City of Carlsbad		12/31/2008	Loss	0		0.00	0.00	0.00
002-044	Macario Canyon		City of Carlsbad		12/31/2008	Loss	0		0.00	0.00	0.00
001-012	Manzanita		Manzanita		9/26/2003	Loss	0		12.67	0.00	12.67
001-013	North Coast Calvary Chapel		North Coast Calvary Chapel		11/17/2004	Loss	0		14.56	0.00	14.56
002-048	Palomar Forum		Palomar Forum		6/25/2004	Loss	0		64.08	0.00	64.08
001-014	Redeemer		Redeemer		10/29/2002	Loss	0		9.67	0.00	9.67
001-028	Robertson Ranch - East		Robertson Ranch - East		1/16/2007	Loss	0		0.00	125.95	125.96
001-029	Sherman		Sherman		3/31/2007	Loss	0		0.00	0.00	0.00
001-017	Spyglass		Spyglass		7/3/2001	Loss	0		0.00	10.61	10.62
001-040	Steiner Property		Steiner Property		1/5/2000	Loss	0		0.00	1.84	1.84
001-041	Tabata 2001		Tabata		1/17/2001	Loss	0		0.00	5.60	5.60
001-042	Tabata 2004		Tabata		9/1/2004	Loss	0		0.00	4.48	4.48
001-018	Terraces at Sunny Creek		Terraces at Sunny Creek		4/26/2000	Loss	0		31.46	0.88	32.34
002-045	Veterans Park		City of Carlsbad		12/31/2008	Loss	0		54.92	0.00	54.92
002-047	Waters End		Waters End HOA		5/15/2002	Loss	0		40.43	0.00	40.43
001-020	Yamamoto		Yamamoto		4/17/2006	Loss	0		0.00	4.92	4.92
Total for Agency: City of Carlsbad									1,317.52	169.06	1,486.58

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Appendix B

Summary of Management and Monitoring Activities within HMP Management Units

Nov 2008-Oct 2009

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Summary of HMP Management and Monitoring Activities, Nov 2008 – Oct 2009

Management Unit (MU)	Management Entity ¹	Management and Monitoring Activities
Agua Hedionda	CDFG	<p><u>Agua Hedionda Lagoon Ecological Reserve</u></p> <ul style="list-style-type: none"> ▪ Conducted surveys for Ca. gnatcatcher, least Bell's vireo, light-footed clapper rail ▪ Invasive plant control: mustard, pampas grass and other invasives along Loma Laguna slope restoration area; and <i>Limonium ramosissimum</i> throughout the ER ▪ Coordinated with Caltrans the installation of permanent fencing along Park Drive adjacent to the ER and the Village A property that Caltrans purchased
	AH Lagoon Foundation	<p><u>Agua Hedionda Lagoon</u></p> <p>The Discovery Center hosts community outreach events, provides educational exhibits and a native plant garden, and runs a children's educational program to promote conservation and raise awareness of water issues. In addition the AHLF conducts monitoring to sustain the recent eradication of <i>Caulerpa taxifolia</i>.</p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Annual Lagoon Day ▪ First Annual Migratory Bird Festival with children's learning stations and famed bird caller Nicole Peretta ▪ Second Annual Pollinator Week – public outreach and educational activities to teach about the importance of pollination. ▪ Spring Birding Workshop with master birder Barbara Moore
	Preserve Calavera	<p><u>Agua Hedionda Lagoon</u></p> <ul style="list-style-type: none"> ▪ Assisted with completion of Watershed Management Plan – broad-based cooperation to improve watershed through strategic acquisition, improved creek buffers, bioengineering, and low impact development.
Arroyo La Costa	HOAs	Property-level management
Batiquitos Lagoon	CDFG	<p><u>Batiquitos Lagoon Ecological Reserve</u></p> <ul style="list-style-type: none"> ▪ Prepared 32 acres of nesting habitat for Ca. least tern and western snowy plover ▪ Monitored Ca. least tern and western snowy plover nesting activity ▪ Conducted Ca. gnatcatcher surveys ▪ Conducted invasive plant control on 100 acres ▪ Enforced fishing regulations ▪ Enforced trespass restrictions (protection of sensitive habitat)

Summary of HMP Management and Monitoring Activities, Nov 2008 – Oct 2009 *continued*

Management Unit (MU)	Management Entity ¹	Management and Monitoring Activities
Batiquitos Lagoon <i>continued</i>	Batiquitos Lagoon Foundation	<p><u>Batiquitos Lagoon</u></p> <p>The Batiquitos Lagoon Foundation is dedicated to the preservation, enhancement, and protection of Batiquitos Lagoon. The BLF provides educational programs for children and adults, runs a nature center, and is involved with projects to monitor and maintain the lagoon.</p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Docent-led walks for the general public, school children, and private adult or family groups. ▪ Routine trail maintenance and trash pick up activities ▪ 1st Cub Scout Conservation Camp ▪ Solitary Bees nesting sites testing for indigenous Lagoon area bees ▪ Annual Christmas Bird Count ▪ Grants from SANDAG and the City to help restore the former Mitsuuchi Property for open space and to purchase tools and equipment
Bressi/Carrillo		Information unavailable
<u>Buena Vista Creek</u>	CDFG/CNLM	<p><u>Buena Vista Creek Ecological Reserve</u></p> <ul style="list-style-type: none"> ▪ Replaced and/or repaired vandalized fencing and signage where necessary ▪ Installed a new gate along the southeastern boundary ▪ Trash removed from former encampments and other localities by Center personnel and volunteers ▪ Facilitated the treatment of invasive riparian plants by the Carlsbad Watershed Network ▪ Re-treated about 10 acres of fennel (<i>Foeniculum vulgare</i>) in the upland areas ▪ Mowed 5 acres of black mustard (<i>Brassica nigra</i>) and non-native grasses in the uplands along southern boundary in the spring ▪ Treated many heavy infestations of ice plant (<i>Carpobrotus edulis</i>, <i>Melephora crocea</i>), artichoke thistle (<i>Cynara cardunculus</i>); re-treated the population of perennial pepperweed (<i>Lepidium latifolium</i>); and treated one location of Dallis grass (<i>Paspalum dilatatum</i>) ▪ Mapped boundaries of pepperweed, and a dense infestation of non-native fireweed groundsel (<i>Senecio linearifolius</i>) ▪ Began general plant survey; searched for sensitive plant species ▪ Censused the thread-leaved brodiaea location, and mapped one location of Palmer's sagewort (<i>Artemisia palmeri</i>) ▪ Mapped a stand of narrow-leaf milkweed (<i>Asclepias fascicularis</i>) that served as host to a large number of larval monarch (<i>Danaus plexippus</i>) butterflies ▪ Incidentally noted several animal sightings while carrying out other tasks ▪ CDFG conducted two surveys for sensitive bird species; recorded 2 pair and 1 single male of coastal California gnatcatchers and 3 pair and 3 single male least Bell's vireo ▪ CNLM participated in public outreach events planned by Preserve Calavera, and participated in the filming of a public outreach video ▪ Participated in a stakeholder meeting concerning sewer access, associated improvements, and cultural resources ▪ Mapped many former encampment sites ▪ Patrolled regularly; removed two itinerants on two separate occasions ▪ Fuel zones were cleared or thinned as prescribed ▪ Developed an annual work plan for the upcoming management year

Management Unit (MU)	Management Entity ¹	Management and Monitoring Activities
	Preserve Calavera	<p><u>Buena Vista Creek Ecological Reserve</u></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Completed first year of effort on 1.8 acre restoration site, logging over 900 volunteer hours ▪ Secured funding for second year of work on 1.8 acre restoration site ▪ Worked with DFG and CNLM toward a plan for next phase of restoration using the \$395,000 SEP funds from RWQCB ▪ Continued efforts toward permanent preservation of the rest of the BV Valley. ▪ Coordinated water quality and stream condition evaluations of Buena Vista Creek
Buena Vista Lagoon	CDFG	<p><u>Buena Vista Lagoon Ecological Reserve</u></p> <ul style="list-style-type: none"> ▪ Conducted surveys for light-footed clapper rail ▪ Removed trash and encampments throughout the ER ▪ Invasive plant control – treatment of myoporum and other exotics around eastern basin
	BV Lagoon Foundation	<p><u>Buena Vista Lagoon</u></p> <p>Manages volunteer programs to conduct trail repairs, trash pickup, weed removal, and to install interpretive signs, trail markers, and trail barriers. Prepare public outreach and educational materials. Raise funds through grants and local donations. Currently assisting with the Buena Vista Lagoon Restoration Project.</p>
	BV Audubon Society	<p><u>Buena Vista Lagoon</u></p> <p>BVAS has held monthly programs and weekly field trips and bird counts throughout the period under review to promote awareness of birds and their habitat requirements in coastal North County, and especially in and around the Buena Vista Lagoon and its watershed. BVAS, with volunteer assistance, runs the Nature Center. Currently assisting with the Buena Vista Lagoon Restoration Project.</p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Annual BVAS Oceanside Birdathon, Birding Workshop, and Open House - May ▪ Childrens' Summer Camp - nature walks, crafts and games ▪ Basic Birding Class at Buena Vista Lagoon Landing ▪ 17 Interpretive Signs installed at the Nature Center Native Plant Garden by Eagle Scout Peter Vo and fellow scouts ▪ Christmas Bird Count
Buena Vista Lagoon <i>continued</i>	Preserve Calavera	<p><u>Buena Vista Lagoon</u></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Partnered with BVAS to successfully oppose development that could damage the Lagoon ▪ Partnered with BVAS in researching and securing Phase I funding for a Watershed Management Plan for the BV Watershed. ▪ Held community education series of events on native plants including lecture, and hikes led by CNLM and CNPS botanists. ▪ Sponsored community education program on fire safety at the wildland/urban interface including lecture, field trip, and setting up a tour of demonstration site with local fire and wildlife agency staff. ▪ Raised public awareness about local natural resources via sponsoring a tree naming contest, distributing fliers and educational materials.

Summary of HMP Management and Monitoring Activities, Nov 2008 – Oct 2009 *continued*

Management Unit (MU)	Management Entity ¹	Management and Monitoring Activities
Calavera	CNLM	<p><u>Calavera Hills Phase II/Robertson Ranch East</u></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Reptiles, birds, and mammals observed on-site while conducting patrols, maintenance, or other monitoring tasks ▪ Four populations of vegetative thread-leaved brodiaea (<i>Brodiaea filifolia</i>) were censused and mapped at Village H ▪ San Diego thornmint (<i>Acanthomintha ilicifolia</i>) population was censused and mapped adjacent to Village X ▪ Standardized habitat assessment performed on the thornmint population ▪ One population of Palmer’s grapplinghook (<i>Harpagonella palmeri</i>) was censused and mapped ▪ First year long-term css monitoring performed at several locations in the HCA ▪ Ant monitoring study performed at Village K ▪ Second native grasslands vegetation assessment performed at Village H ▪ Nonnative plant species removed, including over 300 pampas grass (<i>Cortaderia selloana</i>), several castor bean (<i>Ricinus communis</i>), treated a couple stands of giant reed (<i>Arundo donax</i>), treated several stands of perennial pepperweed (<i>Lepidium latifolium</i>), and thousands of black mustard (<i>Brassica nigra</i>) with herbicide and mechanical methods ▪ Mowed crown daisy (<i>Chrysanthemum coronarium</i>) in Village H ▪ Hundreds of native plants installed at village R; irrigated regularly; kept the site weed free ▪ Weed treatments in Village X parcel, adjacent to and surrounding threadleaved brodiaea populations ▪ Mechanically cleared an area of Village X prior to seed set of invasive plants ▪ Continued to track restoration efforts underway in Robertson Ranch parcels ▪ Corresponded with HOA’s and landscapers to limit irrigation runoff into the HCA and control weeds inside their property ▪ Worked with City of Carlsbad Parks Dept. in continuing to install sections of split rail fencing at Village H ▪ Signed and blocked off unwanted trespass in Village U ▪ Regular patrol, site enforcement and trash pickup conducted to protect the HCA ▪ CE compliance documentation report conducted for Calavera Hills and Robertson Ranch parcels
	CDFG	<p><u>Carlsbad Highlands Ecological Reserve</u></p>
	Preserve Calavera	<p><u>Mount Calavera area</u></p> <p>The goals of Preserve Calavera are to create a regional nature preserve to preserve and protect the open space around Mt Calavera and Lake Calavera as a regional nature preserve; promote the use of these areas by a responsible public; support education and restoration programs; and minimize the adverse effects of development on this natural environment. Preserve Calavera provides docent-led hikes, community outreach, and volunteer opportunities; conducts invasive species removal, wildlife tracking, and open space clean-ups; and participates in the public project review process.</p>

Management Unit (MU)	Management Entity ¹	Management and Monitoring Activities
Calavera <i>continued</i>	Preserve Calavera	<p><u>Mount Calavera area</u> <i>continued</i></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Continued quarterly wildlife tracking surveys ▪ Held wildlife appreciation event- "Coyote Speaks" ▪ Initiated process for sponsoring of interpretive signs ▪ Funded graduate student project for testing of Lake Calavera ▪ Prepared report for DFG documenting numerous illegal mountain biking trails established during the last year in Calavera Highlands ▪ Participated in stakeholder process toward preparation of Master Trails Plan for the Lake Calavera area. ▪ Partnered with the city on several trail building and clean-up projects as part of National Public Lands Day
Faraday	CNLM	<p><u>Kelly Ranch</u></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Replaced a sign at the upper kiosk and placed two signs in locations threatened by trespassers ▪ Submitted samples of potential Del Mar Manzanita (<i>Arctostaphylos glandulosa</i> subsp. <i>crassifolia</i>) to the San Diego Natural History Museum for vouchering and identification ▪ Counted and measured Orcutt's hazardia (<i>Hazardia orcuttii</i>) adults and seedlings ▪ Set up and performed point-intercept cover estimation of Orcutt's hazardia population ▪ Censused and mapped populations of the MHCP covered wart-stem ceanothus (<i>Ceanothus verrucosus</i>) and coast scrub oak (<i>Quercus dumosa</i>) ▪ Controlled nonnative species including several pampas grass (<i>Cortaderia seloana</i>), hundreds of Natal grass (<i>Melinis repens</i>), and thousands of Saharan mustard (<i>Brassica tournefortii</i>) ▪ Conducted regular patrol, site enforcement and trash pickup to protect the HCA ▪ Continued to work with the Home Owner's Association (HOA) and area homeowners to ensure that homeowners comply with covenants, conditions, and restrictions (CC&R's) ▪ Annual CE Compliance visit and report conducted ▪ Coordinated with biological consultants on the restoration efforts they are undertaking on various areas of the HCA
Los Monos	CNLM	<p><u>Carlsbad Oaks North</u></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Continued to block sections of the illegally constructed "flightline" trail with vegetation, and maintained fencing ▪ 1900 feet of barbless barbed wire fencing installed ▪ Mule deer (<i>Odocoileus hemionus</i>) and coyote (<i>Canis latrans</i>) photographed using the HCA along La Mirada and Agua Hedionda Creeks ▪ Incidentally noted bird species while conducting other activities, including a nesting pair of red tail hawks (<i>Buteo jamaicensis</i>) ▪ Mapped three pair coastal California gnatcatcher (<i>Polioptila californica californica</i>) ▪ Censused and assessed the vegetative cover by species within the San Diego thornmint (<i>Acanthomintha ilicifolia</i>) population

Management Unit (MU)	Management Entity ¹	Management and Monitoring Activities
Los Monos <i>continued</i>	CNLM <i>continued</i>	<p><u>Carlsbad Oaks North</u> <i>continued</i></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Assessed the vegetative cover by species within the largest thread-leaved brodiaea (<i>Brodiaea filifolia</i>) population ▪ Mapped and censused one previously unknown populations of thread-leaved brodiaea, and censused previously known locations ▪ Mapped other rare plants where found during other activities ▪ Set up CSS study plots and conducted the first year of this long-term study ▪ Conducted a coast live oak (<i>Quercus agrifolia</i>) study trial, and established three long-term monitoring sites. ▪ Conducted two California Native Plant Society (CNPS) rapid assessments on the eastern portion of the HCA ▪ Supervised the chemical control of pampas grass (<i>Cortaderia selloana</i>), and onion weed (<i>Asphodelus fistulosus</i>) ▪ Mechanically and chemically treated several populations of weeds throughout the HCA, including artichoke thistle (<i>Cynara cardunculus</i>), castor bean (<i>Ricinus communis</i>), pampas grass, African fountain grass (<i>Pennisetum sataceum</i>) black mustard (<i>Brassica nigra</i>), poison hemlock (<i>Conium maculatum</i>), sweet fennel (<i>Foeniculum vulgare</i>), saltcedar (<i>Tamarix ramosissima</i>), Italian thistle (<i>Carduus pycnocephalus</i>), milk thistle (<i>Silybum marianum</i>), and bristly ox-tongue (<i>Pichris echioides</i>). ▪ Led a publicly announced nature hike through the HCA ▪ Kept homeless encampments from forming by conducting routine patrols in problem areas ▪ Patrolled the HCA regularly, picking up trash, removing weeds, and looking for other potential problems ▪ Conducted a CE compliance visit and report to ensure the values of the HCA are preserved in perpetuity
	UCSD	<p>Activity Highlights</p> <p>Restoration Ecology: Conduct stream bank restoration. Fire Ecology: Old-growth and postburn chaparral monitored since a 1982 fire. Field Courses: Site visits by university courses in ecology, human biology, and natural history; facilities are expanding to enhance teaching use. Public outreach: The San Diego Natural History Museum collects plant specimens.</p>
Poinsettia/Aviara	Aviara Master HOA	Property-level management
	Other HOAs	Property-level management
Villages of La Costa	CNLM	<p><u>Rancho La Costa</u></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Completed wildlife corridor tracking at two locations within the HCA ▪ Conducted focused surveys for San Diego thornmint (<i>Acanthomintha ilicifolia</i>), San Diego goldenstar (<i>Bloomeria clevelandii</i>), and Orcutt's hazardia (<i>Hazardia orcuttii</i>) ▪ Assessed condition of thread-leaved brodiaea (<i>Brodiaea filifolia</i>) habitat at La Costa Greens; sprayed Fusilade in several research plots ▪ Assessed San Diego thornmint habitat conditions

Summary of HMP Management and Monitoring Activities, Nov 2007 – Oct 2008 *continued*

Management Unit (MU)	Management Entity ¹	Management and Monitoring Activities
Villages of La Costa Costa <i>continued</i>	CNLM <i>continued</i>	<p><u>Rancho La Costa</u> <i>continued</i></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Discussions regarding rare plant management and monitoring strategies between CNLM, USFWS, CDFG and City of Carlsbad management and monitoring strategies ▪ Coastal sage scrub long term vegetation monitoring plots established and data collected ▪ Non-native plant species controlled or removed: tree tobacco include (Nicotiana glauca), Russian thistle (Salsola spp.), onion weed (Asphodelus fistulosus), perennial pepper weed (Lepidium latifolium), pampas grass (Cortaderia spp.), palm trees (Phoenix canariensis, Washingtonia filifera), castor bean (Ricinis communis), fennel (Foeniculum vulgare), artichoke thistle (Cynara cardunculus), eucalyptus trees (Eucalyptus spp), Ward’s weed (Carrichtera annua), black mustard (Brassica nigra), Sahara mustard (Brassica tournefortii), Italian thistle (Carduus pycnocephalus), olive trees (Olea europaea), pepper trees (Schinus molle), smilo grass (Piptatherum miliaceum), acacia trees (Acacia spp.), blue-eye cape-marigold (Dimorphotheca sinuata), crown marigold (Chrysanthemum spp.), and non-native, annual grasses ▪ Conducted herbicide experiments on onion weed; conducted weed removal technique experiment for a third year on occupied thread-leaved brodiaea habitat ▪ CNLM installed container plants and weeded at the Huff and Hubbard Slope restoration sites ▪ Thread-leaved brodiaea and San Diego thormmint seed was planted to propagate plants and additional San Diego thormmint seed was collected to propagate plants for the next fiscal year ▪ Staff and volunteers improved existing trail system; illegal trails were blocked ▪ Several new trails and/or trail sections were added to the HCA trail system ▪ Installed fence and signs in many locations throughout the HCA ▪ Volunteers initiated several restoration, maintenance, and construction projects ▪ CE compliance monitoring was conducted and all required documentation was prepared ▪ Mowed fuel breaks as required by the Fire Department ▪ Enforced unwanted trespassing, picked up trash, delt with itinerant encampments CNLM spent considerable time and resources enforcing unwanted trespass, picking up trash, dealing with itinerant encampments, and educating the public ▪ One Eagle Scout project completed; two others initiated ▪ Hired one full time ranger and two part-time rangers to patrol and enforce compliance at Box Canyon and other areas in the HCA
Multiple MUs	CNLM	<p><u>City of Carlsbad Preserves</u></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Conducted sensitive bird and avian community surveys at each property ▪ Conducted surveys for sensitive Blochman’s dudleya (Dudleya blochmannii) ▪ Evaluated, assessed, and treated or removed invasive plant species ▪ Conducted routine patrols to protect the preserve and provide information to users

Management Unit (MU)	Management Entity ¹	Management and Monitoring Activities
Multiple MUs continued	CNLM <i>continued</i>	<p>City of Carlsbad Preserves <i>continued</i></p> <p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Enforced unwanted use and picked up trash at Lake Calavera. ▪ Installed signs and kiosks ▪ Organized events for volunteers, public outreach, and education ▪ Discussions with Police and Fire Departments addressing issues and coordinated responsibilities ▪ Attended Regular meetings of CNLM, City staff and City’s Preserve Steward to discuss preserve management and monitoring
	Carlsbad Watershed Network	<p>CWN is a coalition of non governmental groups that coordinate with one another within the 210 square miles Carlsbad Hydrologic Unit (CHU) CWN acts as a clearinghouse for water resources projects; coordinates planning, shares resources and finds solutions for the benefit of the entire CHU.</p> <p>Activity Highlights</p> <ul style="list-style-type: none"> • Watershed Stewards Training • Invasive species removal • North County Stormwater Management Programs • Agua Hedionda Watershed Management Plan • UCSD Case Study of Mitigation Sites
	Preserve Calavera	<p>Activity Highlights</p> <ul style="list-style-type: none"> ▪ Held community education series of events on native plants including lecture, and hikes led by CNLM and CNPS botanists. ▪ Sponsored community education program on fire safety at the wildland/urban interface including lecture, field trip, and setting up a tour of demonstration site with local fire and wildlife agency staff. ▪ Raised public awareness about local natural resources by sponsoring a tree naming contest, distributing fliers and educational materials
	City Parks and Recreation Department	<p>The Citywide Trails Program manages and monitors trail improvements, construction and maintenance activities in some of Carlsbad’s open spaces that are part of the HMP, and conducts public outreach.</p> <p>Activity Highlights:</p> <ul style="list-style-type: none"> ▪ Citywide Trail Volunteer Program - Oversee volunteers that work on a monthly basis to improve and construct trails by picking up litter, installing trail signage, repairing erosion, and removing weeds from the trails. Quarterly Trail Volunteer Meetings are held which are open to the public. A schedule is provided on the City’s Website ▪ National Public Lands Day Clean-Up ▪ Trail School Native Plant Seminar ▪ Lake Calavera Trails Master Plan - The Plan formally identifies authorized and unauthorized trails, provides trail and interpretive signage, and includes a fencing plan.

¹ Primary management entities (Preserve Managers) are in bold. CDFG – California Department of Fish and Game. CNLM – Center for Lands Management. CWN – Carlsbad Watershed Network. “Other” – HOAs (other than Aviara HOA) and private open space; generally these were preserved prior to HMP approval.