



THE CITY OF SAN DIEGO

February 21, 2012

Mr. David Zoutendyk
U.S. Fish and Wildlife Service
Carlsbad Field Office
6010 Hidden Valley Road
Carlsbad, CA 92009

Mr. David Mayer
California Department of Fish and Game
3883 Ruffin Road
San Diego, CA 92123

Dear Mr. Zoutendyk and Mr. Mayer:

Subject: Final 2011 MSCP Annual Report

Enclosed is the City of San Diego's Final 2011 MSCP Annual Report. In developing this report, the City of San Diego has utilized Habitrak, the GIS extension developed by CDFG for tracking loss and gain of habitat. Each project that was issued a grading permit within the year 2011 was evaluated for impacts to environmentally sensitive lands, and all impacts were entered as loss projects for the 2011 calendar year. The updated digital data for habitat loss and gain within the City of San Diego through 2011 is attached.

The regional and project specific maps that are generated by Habitrak are currently of little use and costly to print. The digital data supplied to your offices may be used to generate maps through Habitrak, if desired.

As the enclosed Summary of Habitat Losses and Gains table shows, to date the City has conserved a total of 33,606 acres inside the MHPA. This represents 64 percent of the City's conservation target in the MSCP Subarea Plan. In 2011, a total of 0.4 acres were lost inside the MHPA and 74.0 acres were conserved inside the MHPA. Additionally, 15.6-acres were lost outside the MHPA while 24.5 acres were conserved outside the MHPA. In the reporting period of 2011, Habitrak was updated to represent the 2005 acquisition and conservation of an additional 80- acres of pristine undisturbed mesa top habitat located in Del Mar Mesa. Therefore, an overall habitat gain of 154-acres inside the MHPA is depicted in 2011 Cumulative Conservation Inside Habitat Preserve of the Habitat Conservation Accounting Model.



Development Services • Planning Division

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The City of San Diego Park and Recreation Department, Open Space Division has prepared and sent the "City of San Diego 2011 MSCP Rare Plant Monitoring Report" to the wildlife agencies under separate cover. Meanwhile, contained herein is the "MSCP Management Actions Report, January 1, 2011-December 31, 2011" prepared by the City of San Diego Park and Recreation Department & Public Utilities Department. This report provides a summary of the myriad of management projects that were undertaken in 2011. In addition to on-going stewardship and land management activities (see MSCP Management Actions Report 2011), the Park and Recreation Department Open Space Division is conducting weeding at the San Diego Ambrosia site at Mission Trails Regional Park in an adaptive management framework. This project builds on two pilot studies previously conducted by the Center for Natural Lands Management and Mike Kelly and Associates. The monitoring methods to assess management actions were developed in conjunction with the Institute for Ecological Management and Monitoring at San Diego State University. To date, pre-treatment monitoring was conducted on January 12, 2011, post-treatment monitoring was conducted on June, 9, 2011, and pre-treatment monitoring was conducted on January 31, 2012. Following the first treatment, Ambrosia appeared increased in size and extent; however, statistical assessments will be completed upon collection of two full years of data. Finally, City Parks and Recreation Department concluded that no impacts to Park and Recreation Open Spaces lands occurred in 2011.

The City's open space parks include Deer Canyon. In 2010, the Deer Canyon Mitigation Bank completed its environmental credit sales and was in the process of turning the property over to the City of San Diego as required in the Banking Implementation Agreement. In 2011, additional meetings were held with MSCP staff, the Real Estates Assets Department (READ), and the Park and Recreation Department to discuss the transfer of Deer Canyon to City Open Space. It is anticipated that the Deer Canyon property would be accepted by the City Council in 2012.

The City's Marron Valley Conerstone Mitigation Bank sold a total of 3.19 credits in 2011. Therefore, the Maroon Valley Bank has sold 63.165 credits and maintains 936.84 of remaining credits as of 2011 (attached).

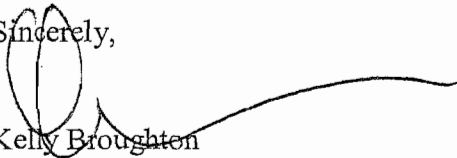
Adjustments to the boundary of the MHPA are allowed on a project-by-project basis if the boundary adjustment is deemed functionally equivalent to the land that is proposed to be removed from the MHPA (see Section 5.4.2 MSCP Plan, August 1998). The wildlife agencies must concur with the adjustment. In 2011, one MHPA Boundary Line Adjustment was tentatively approved pending review of additional information. Torrey Pines City Park General Development Plan is a resource-based park first established in 1899. Previous master plans have studied the site and recommended improvements, but were not processed for approval. The project would include revisions to the MHPA boundary. Approximately 2.4 acres of land that have been in Gliderport use since the 1930s would be removed from the MHPA through a boundary line correction. In addition, a proposed boundary line adjustment would subtract 0.5 acre currently within the MHPA and would add 22.5 acres.

The Nakano Annexation Process was approved by the City and Wildlife Agencies in 2011. Through the annexation of the Nakano Property from the City of Chula Vista to the City of San Diego, the City's MSCP Subarea Plan would be amended to depict the Nakano property inside City of San Diego jurisdiction. A Consistency Analysis was prepared by Helix Environmental Consulting to demonstrate that the two jurisdictions' Subarea Plans are consistent and an additional requirement of contribution to long-term funding would be made a condition of project approval and provided by Pardee. Upon formal approval of LAFCO annexation, the applicant would resubmit to the City for Site Development Permit (SDP). At that time, Third Party Beneficiary Status would be granted to Pardee for potential indirect impacts to CAGN and included in the SDP. No MHPA boundary line adjustments for City of San Diego or City of Chula Vista were proposed.

I look forward to your comments on the enclosed information, and hope to have an opportunity to discuss the results and future needs of the City and the Wildlife Agencies as they pertain to Habitrak and the annual report requirements. Your timely review of the annual report is appreciated.

Please call Kristy Forburger at (619) 236-6583 if you have any questions.

Sincerely,



Kelly Broughten
Director, Development Services Department

KF:kf

Enclosure: MSCP Annual Report 2011
MSCP Management Actions Report, 2011
Canyon Sewer Cleaning Program and Long Term Sewer Maintenance
Program Progress Report, 2011
Time Zero Report for the Central Tecolote Canyon Mitigation Project
Summary of Maroon Valley Conerstone Mitigation Bank Debits
City of San Diego Public Utilities Department Impact Totals by Project 2011
City of San Diego Public Works Department Impact Totals 2011

CC: Honorable Mayor Jerry Sanders
Betsy Miller, Biologist III, Park and Recreation Department; Open Space Division
Stacey LoMedico, Director Park and Recreation Department
Nicole McGinnis, Senior Planner, Public Utilities Department
Keli Balo, Senior Planner, Public Utilities Department
Kerry Santoro, Project Officer II, Public Works Department
Keith Greer, SANDAG

Habitat Conservation Accounting Model

MSCP South San Diego County

From 1/1/2011 To 12/31/2011

Project Gain Status: Gain

Project Loss Status: Loss

<i>City of San Diego</i>	Total Subarea Habitat Preserve	Conservation Target	Estimated Take	Conservation Ratio	Cumulative Conservation Inside Habitat Preserve	Max. Allowable Impacts for the Current Period	Actual Loss Inside Habitat Preserve for Current Period	+ or - Max. Allowable Impacts
Beach	115	115	0	0.00	77.14	0.00	0.00	n/a
Saltpan	136	136	0	0.00	138.92	0.00	0.00	n/a
Southern Foredunes	10	9	1	9.00	9.92	1.09	0.00	-
Southern Coastal Bluff Scrub	144	137	7	19.57	141.01	7.18	0.00	-
Coastal Sage Scrub	21,185	19,260	1,925	10.01	11,835.71	1,257.16	0.00	-
Maritime Succulent Scrub	721	694	27	25.70	704.46	27.37	0.00	-
Chaparral	11,652	10,574	1,078	9.81	7,441.98	790.63	0.12	-
Southern Maritime Chaparral	1,231	1,128	103	10.95	946.75	88.11	0.22	-
Coastal Sage-Chaparral Scrub	118	98	20	4.90	267.16	51.07	0.00	-
Grassland	5,387	5,014	373	13.44	3,288.09	257.45	0.00	-
Southern Coastal Salt Marsh	936	936	0	0.00	732.87	0.00	0.00	n/a
Freshwater Marsh	232	232	0	0.00	74.97	0.00	0.00	n/a
Riparian Forest	614	614	0	0.00	434.36	0.00	0.00	n/a
Oak Riparian Forest	469	469	0	0.00	312.12	0.00	0.00	n/a
Riparian Woodland	567	567	0	0.00	511.82	0.00	0.00	n/a
Riparian Scrub	2,749	2,749	0	0.00	1,773.30	0.00	0.00	n/a
Oak Woodland	362	332	30	11.07	179.56	17.60	0.00	-
Torrey Pine Forest	153	145	8	18.13	144.50	7.98	0.00	-
Tecate Cypress Forest	2	2	0	0.00	0.00	0.00	0.00	n/a
Eucalyptus Woodland	189	183	6	30.50	123.95	4.26	0.00	-
Open Water	3,699	3,699	0	0.00	519.75	0.00	0.00	n/a
Disturbed Wetland	583	583	0	0.00	141.41	0.00	0.00	n/a
Natural Floodchannel	295	295	0	0.00	43.74	0.00	0.00	n/a
Shallow Bays	225	225	0	0.00	76.86	0.00	0.00	n/a
Pacific Ocean/Deep Bay	2	0	2	0.00	1.95	0.00	0.00	n/a
Disturbed Land	2,763	0	2,763	0.00	1,772.81	0.00	0.01	+
Agriculture	2,097	0	2,097	0.00	1,103.83	0.00	0.00	n/a
Urban/Developed	0	0	0	0.00	807.42	0.00	0.01	+
Total Acres for Agency: City of San Diego					33,606.36		0.37	

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

Summary of Habitat Losses and Gains

Plan: MSCP South San Diego County
Date Range: 1/1/2011 - 12/31/2011

Project Gain Status: Gain
Project Loss Status: Loss

City of San Diego

Habitat Type	Target Cons.	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	
		Current Period	Cummulative	Current Period	Cummulative	Cons. to Date %	Current Period	Cummulative	Current Period	Cummulative	Current Period	Cummulative	Current Period	Cummulative
Beach	115	0.0	0.0	0.0	77.1	67.1 %	0.0	0.0	0.0	18.0	0.0	0.0	0.0	95.2
Saltpan	136	0.0	0.0	0.0	138.9	102.1 %	0.0	0.0	0.0	0.1	0.0	0.0	0.0	139.0
Southern Foredunes	9	0.0	0.0	0.0	9.9	110.2 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
Southern Coastal Bluff Scrub	137	0.0	0.0	0.0	141.0	102.9 %	0.0	0.0	0.0	1.7	0.0	0.0	0.0	142.7
Coastal Sage Scrub	19,260	0.0	225.3	45.2	11,835.7	61.5 %	0.8	1,195.0	3.2	421.8	0.8	1,420.3	48.4	12,257.5
Maritime Succulent Scrub	694	0.0	38.7	0.0	704.5	101.5 %	0.0	183.2	0.0	57.9	0.0	221.8	0.0	762.4
Chaparral	10,574	0.1	134.5	23.9	7,442.0	70.4 %	0.4	1,107.5	0.1	436.6	0.5	1,242.0	24.0	7,878.6
Southern Maritime Chaparral	1,128	0.2	42.5	1.2	946.8	83.9 %	1.1	97.1	1.2	36.4	1.4	139.7	2.4	983.1
Coastal Sage-Chaparral Scrub	98	0.0	6.8	0.0	267.2	272.6 %	0.2	11.9	0.7	35.1	0.2	18.6	0.8	302.3
Grassland	5,014	0.0	222.8	0.2	3,288.1	65.6 %	0.0	3,536.8	0.0	548.3	0.0	3,759.6	0.2	3,836.4
Southern Coastal Salt Marsh	936	0.0	0.0	0.0	732.9	78.3 %	0.0	0.0	0.0	69.1	0.0	0.0	0.0	802.0
Freshwater Marsh	232	0.0	1.5	0.0	75.0	32.3 %	0.0	2.5	0.0	0.9	0.0	4.0	0.0	75.9
Riparian Forest	614	0.0	0.3	0.0	434.4	70.7 %	0.0	3.1	0.0	1.8	0.0	3.4	0.0	436.2
Oak Riparian Forest	469	0.0	0.2	0.0	312.1	66.5 %	0.0	0.1	0.0	3.2	0.0	0.3	0.0	315.3
Riparian Woodland	567	0.0	0.0	1.5	511.8	90.3 %	0.0	0.0	0.0	1.3	0.0	0.0	1.5	513.2
Riparian Scrub	2,749	0.0	30.0	0.0	1,773.3	64.5 %	0.5	48.5	0.5	26.7	0.5	78.5	0.5	1,800.0
Oak Woodland	332	0.0	1.2	0.0	179.6	54.1 %	0.0	0.8	0.0	3.3	0.0	2.1	0.0	182.8
Torrey Pine Forest	145	0.0	0.0	0.0	144.5	99.7 %	0.0	0.0	0.0	0.5	0.0	0.0	0.0	145.0
Tecate Cypress Forest	2	0.0	0.0	0.0	0.0	0.0 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eucalyptus Woodland	183	0.0	3.5	0.0	123.9	67.7 %	0.0	18.8	0.0	9.7	0.0	22.3	0.0	133.6
Open Water	3,699	0.0	3.1	0.0	519.8	14.1 %	0.0	1.0	0.0	4.0	0.0	4.1	0.0	523.8
Disturbed Wetland	583	0.0	0.0	0.0	141.4	24.3 %	0.0	2.5	0.0	0.0	0.0	2.5	0.0	141.4
Natural Floodchannel	295	0.0	0.0	1.5	43.7	14.8 %	0.0	1.3	0.0	0.0	0.0	1.3	1.5	43.8
Shallow Bays	225	0.0	0.0	0.0	76.9	34.2 %	0.0	0.0	0.0	191.8	0.0	0.0	0.0	268.7
Pacific Ocean/Deep Bay	0	0.0	0.0	0.0	1.9		0.0	0.0	0.0	4.1	0.0	0.0	0.0	6.0
Disturbed Land	0	0.0	39.8	0.2	1,772.8		4.2	681.1	15.9	217.0	4.2	721.0	16.1	1,989.8
Agriculture	0	0.0	185.5	0.0	1,103.8		0.4	1,033.1	2.4	312.5	0.4	1,218.6	2.4	1,416.3

City of San Diego

Habitat Type	Target Cons.	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	
		Current Period	Cummulative	Current Period	Cummulative	Cons. to Date %	Current Period	Cummulative	Current Period	Cummulative	Current Period	Cummulative	Current Period	Cummulative
Urban/Developed	0	0.0	49.5	0.0	807.4		8.0	1,222.2	0.4	213.0	8.0	1,271.8	0.4	1,020.4
Agency Total:		0.4	985.2	73.7	33,606.4		15.6	9,146.5	24.5	2,614.9	16.0	10,131.7	98.2	36,221.2

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

Summary of Project Gains

MSCP South San Diego County

From 1/1/2011 To 12/31/2011

City of San Diego

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
11-0009	C. Davisson	Otay Mesa	C. Davisson	645-075-06	2/24/2011	Gain	Local	Acquisition	0.00	0.91	0.00	0.91
11-0007	Cairncross	East Elliott	Cairncross		2/24/2011	Gain	Local	Acquisition	0.00	0.00	14.03	14.03
11-0010	Callahan	East Elliott	Callahan	366-030-37	2/24/2011	Gain	Local	Acquisition	0.00	0.00	20.88	20.88
105424	Ceravolo Vineyard	HAF = \$13,475	William Ceravolo		9/6/2011	Gain	Local	Covenant	0.00	0.00	0.00	0.00
11-0002	Clayton		Clayton	645-040-50	2/24/2011	Gain	Local	Acquisition	0.00	16.66	0.13	16.79
17013	Estates @ Costa Del Mar II	Carmel Valley - Terminus of Arroyo Sorrento Pl.	Cooper Engineering Associates/Leon Perl	307-051-1600	6/14/2011	Gain	Private	Covenant	0.00	1.71	2.48	4.19
11-0013	Gomez	Otay Mesa	Gomez	645-074-09	2/24/2011	Gain	Local	Acquisition	0.00	0.91	0.00	0.91
11-0008	H. Davisson	Otay Mesa	H. Davisson	645-075-20	2/24/2011	Gain	Local	Acquisition	0.00	0.82	0.09	0.91
11-0003	Kobb/Matorin	East Elliott	Kobb/Matorin	366-071-23	2/24/2011	Gain	Local	Acquisition	0.00	0.00	6.30	6.30
09-0015	Los Penasquitos Recycled Water Pipeline		City of San Diego Public Utilities		9/30/2011	Gain	Local	Mitigation Bank Debit	0.80	0.00	0.00	0.00
11-0006	Mandrillo	East Elliott	Mandrillo		2/24/2011	Gain	Local	Acquisition	0.00	0.00	5.10	5.10
11-0015	Old El Cam Real - Gonzlz Cyn Trf Cnxn		City of San Diego Park and Rec		9/9/2011	Gain	Local	Mitigation Bank Debit	0.29	0.00	0.00	0.00
226264	Our Lady of Mt Carmel	13541 Stoney Creek Rd	Our Lady of Mt Carmel Parish	315-371-3800	6/1/2011	Gain	Private	Covenant	0.00	1.02	0.04	1.05
3339	River Estates	1194 Hollister St betw Flower and Sunburst	Otto Roppel	634-010-1300	6/15/2011	Gain	Federal	Covenant	0.00	0.66	0.00	0.66
11-0012	San Ysidro	Otay Mesa	San Ysidro	645-074-12	2/24/2011	Gain	Local	Acquisition	0.00	0.91	0.00	0.91
11-0005	Sarver	East Elliott	Sarver		2/24/2011	Gain	Local	Acquisition	0.00	0.00	8.26	8.26
256827	Stevens Residence	4295 Proctor Place	Thompson/Orion	444-250-1800	12/8/2011	Gain	Private	Covenant	0.00	0.01	0.85	0.86
11-0004	Sutton	East Elliott	Sutton	366-030-33	2/24/2011	Gain	Local	Acquisition	0.00	0.00	15.54	15.54
11-0011	Trujillo	Otay Mesa	Trujillo	645-074-06	2/24/2011	Gain	Local	Acquisition	0.00	0.91	0.00	0.91
11-0014	Vista Del Mar Elementary School	Marron Valley	San Ysidro School District		3/1/2011	Gain	Local	Mitigation Bank Debit	2.10	0.00	0.00	0.00
Total for Agency: City of San Diego									3.19	24.51	73.69	98.20

Summary of Project Losses

MSCP South San Diego County

From 1/1/2011 To 12/31/2011

City of San Diego

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
105424	Ceravolo Vineyard	5987 Baja Dr.	William Ceravolo	466-370-1000 466-380-1000	9/6/2011	Loss	105424	Single-Family Residential	1.79	0.00	1.79
17013	Estates @ Costa Del Mar II	Terminus of Arroyo Sorrento PI, Carmel Valley	Cooper Engineering Associates/Leon Peri	307-051-1600	6/14/2011	Loss	17013	Single-Family Residential	5.72	0.30	6.02
226264	Our Lady of Mt Carmel	13541 Stoney Creek Rd	Our Lady of Mt Carmel Parish	315-371-3800	6/29/2011	Loss	176054	Institutional	5.85	0.02	5.87
3339	River Estates	1194 Hollister St. betw Flower and Sunburst	Otto Roppel	634-010-1300	6/1/2011	Loss	3339	Multi-Family Residential	1.93	0.00	1.93
256827	Stevens Residence	4295 Proctor Place	Thompson/Orion	444-250-1800	12/8/2011	Loss	191627	Single-Family Residential	0.33	0.04	0.37
Total for Agency: City of San Diego									15.62	0.37	15.99

Summary of Mitigation Bank Debits

MSCP South San Diego County

From 1/1/2011 To 12/31/2011

City of San Diego

Mitigation Bank Name	Project Tracking #	Project Name	Applicant	Date Conserved	Project Status	Credits
Marron Valley						
	11-0014	Vista Del Mar Elementary School	San Ysidro School District	3/1/2011	Gain	2.10
	11-0015	Old El Cam Real - Gonzlz Cyn Trl Cnxn	City of San Diego Park and Rec	9/9/2011	Gain	0.29
	09-0015	Los Penasquitos Recycled Water Pipeline	City of San Diego Public Utilities	9/30/2011	Gain	0.80
Total Debits This Period:						3.19
Credits Available:						1,000.00
Remaining Credits:						996.81



City of San Diego Public Utilities Department Impact Totals 2011

Code	Habitat Type	Position	Tier	In MHPA?	Acre (sum)
DCSS	Diegan Coastal Sage Scrub	upland	2	yes	0.04
DCSS	Diegan Coastal Sage Scrub	upland	2	no	0.108
SMC	Southern Mixed Chaparral	upland	3a	yes	0.055
NNG	Non-Native Grassland	upland	3b	yes	0.004
NNG	Non-Native Grassland	upland	3b	no	0.011
DHAB	Disturbed Habitat	upland	4	no	0.231
EUCW	Eucalyptus Woodland	upland	4	yes	0.008
EUCW	Eucalyptus Woodland	upland	4	no	0.006
NNV	Non-Native Vegetation	upland	4	yes	0.024
NNV	Non-Native Vegetation	upland	4	no	0.02
DWET	Disturbed Wetland	wetland	W	yes	0.014
EW	Emergent Wetland	wetland	W	yes	0.02
FM	Freshwater Marsh	wetland	W	no	0.01
NVC	Non-Vegetated Channel, Floodway, Lakeshore Fringe	wetland	W	yes	0.035
NVC	Non-Vegetated Channel, Floodway, Lakeshore Fringe	wetland	W	no	0.0465
RS	Riparian Scrub	wetland	W	no	0.014
RS	Riparian Scrub	wetland	W	yes	0.025
SWS	Southern Willow Scrub	wetland	W	yes	0.03
SWS	Southern Willow Scrub	wetland	W	no	0.015



City of San Diego
Public Utilities Department
Impact Totals by Tier 2011

Tier W (wetland)

<u>Acre</u>	<u>MHPA</u>
0.0855	no
0.1240	yes

Tier 4 (upland)

<u>Acre</u>	<u>MHPA</u>
0.2570	no
0.0320	yes

Tier 3b (upland)

<u>Acre</u>	<u>MHPA</u>
0.0110	no
0.0040	yes

Tier 3a (upland)

<u>Acre</u>	<u>MHPA</u>
0.0550	yes

Tier 2 (upland)

<u>Acre</u>	<u>MHPA</u>
0.1080	no
0.0400	yes

Tier 1 (upland)

<u>Acre</u>	<u>MHPA</u>
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Tier (upland)

<u>Acre</u>	<u>MHPA</u>
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Mitigation Site Usage Report

Tuesday, January 31, 2012

2:22:51 PM

Mitigation Site Name	Mitigation Type	Site Size (Acres)	Acres Used	Balance (Acres)
Camino del Rio North - San Diego River Creation	Wetland Creation	3.43	2.0003	1.4297
Canyon View (Penasquitos Upland)	Upland Restoration	7.67	1.445	6.225
Central Tecolote Enhancement/Mitigation	Upland Restoration	3.17	1.174	1.996
Central Tecolote Enhancement/Mitigation	Wetland Enhancement	3.47	2.6356	0.8344
El Cuervo Norte	Wetland Creation	0.72	0.637	0.083
El Cuervo Norte	Wetland Enhancement	0.68	0.669	0.011
El Rancho (Penasquitos Enhancement)	Wetland Enhancement	5.53	3.189	2.341
Lake Murray	Wetland Enhancement	2.5	1.521	0.979
Lake Murray	Upland Restoration	5.2	5.032	0.168
Los Penasquitos North	Upland Restoration	1.03	1.03	0
Los Penasquitos North	Wetland Creation	3.8	3.597	0.203
Marron Valley Cornerstone Lands Conservation Ba	Upland Bank	7.4142	5.3262	2.088
Otay Mesa Mitigation Bank	Upland Bank	12.5	1.745	10.755
Penasquitos Eucalyptus Removal	Wetland Enhancement	0.31	0.31	0
Rancho Mission Enhancement	Wetland Enhancement	7.59	2.2921	5.2979
Rose Canyon Wetland and Upland	Wetland Enhancement	2.01	0.8498	1.1602
Rose Canyon Wetland and Upland	Upland Restoration	5.37	3.148	2.222
Rose Canyon Wetland and Upland	Wetland Creation	3.56	3.4008	0.1592
San Clemente Wetland and Upland	Upland Restoration	3.31	1.648	1.662
San Clemente Wetland and Upland	Wetland Creation	2.18	2.054	0.126
Tecolote - Tree of Heaven removal	Wetland Enhancement	0.25	0.25	0
Tecolote Canyon Wetland and Upland	Wetland Creation	1.56	1.464	0.096
Tecolote Canyon Wetland and Upland	Upland Restoration	3.94	2.912	1.028
TOTALS		87.1942	48.3298	38.8644

Impact totals by project 2011

Los Peñasquitos Recycled Water Pipeline Mitigation

Code	Habitat Type	Position	Tier	Acreage in MHPA	Acreage out of MHPA	PTS/MND No.	Permit Type	Location	Type of project	Mit ratio	Mit acreage	Mitigation type
DCSS	Disturbed coastal sage/ non-native grassland	Upland	2		0.74	55213/74802	SDP	R.Penas. carmel val	recycle water pipeline	1 to 1	0.8	Marron Valley

West Lewis and Falcon Street Mini Park

Code	Habitat Type	Position	Tier	Acreage in MHPA	Acreage out of MHPA	PTS/MND No.	Permit Type	Location	Type of project	Mit ratio	Mit acreage	Mitigation type
NNG	Non-native grasslands	Upland	3B		0.14	150839	SDP	W.Lewis & Falcon	Park	0.5 to 1	0.07	HAF: \$2,695

Mission Center Canyon Sewer

Code	Habitat Type	Position	Tier	Acreage in MHPA	Acreage out of MHPA	PTS/MND No.	Permit Type	Location	Type of project	Mit ratio	Mit acreage	Mitigation type
DCSS	Disturbed Coastal Sage	Upland		0.136	0.104							
	Riparian	Wetland	W	0.023								

Totals

0.159 0.104

Group Job 665

Code	Habitat Type	Position	Tier	Acreage in MHPA	Acreage out of MHPA	PTS/MND No.	Permit Type	Location	Type of project	Mit ratio	Mit acreage	Mitigation type
	Chaparral	Upland		0.01								HAF:\$2,374.17
DCSS	Disturbed coastal sage scrub	Upland		0.02								HAF: 4748.33
	Chaparral	Upland			0.02							
DCSS	Disturbed coastal sage scrub	Upland			0.01							
	Drainage (non- wetland water)	Wetland	W	0.002								
DWET	Disturbed wetland	Wetland	W		0.004							
	Drainage (non- wetland water)	Wetland	W		0.005							
Totals				0.032	0.039							

MYF Localizer Project

Code	Habitat Type	Position	Tier	Acreage in MHPA	Acreage out of MHPA	PTS/MND No.	Permit Type	Location	Type of project	Mit ratio	Mit acreage	Mitigation type
SDMVP	San Diego mesa vernal pool	Wetland		0	0.19	212101	SDP	MYF Airport	Emergency	5 to 1	0.95	Restoration and onsite creation
NNG	Non-native grasslands	Upland	IIIb	0	1.2					0.5 to 1	0.6	onsite restore
NNG	Non-native grasslands	Upland	IIIb	0.05	0					1 to 1	0.05	on site restoration
DHAB	Disturbed habitat	Upland	IV	0	0.12							None
Totals				0.05	1.51						1.60	

Rose Creek Bicycle and Pedestrian Bridge

Code	Habitat Type	Position	Tier	Acreage in MHPA (100 sf)	Acreage out of MHPA	PTS/MND No.	Permit Type	Location	Type of project	Mit ratio	Mit acreage (400 sf)	Mitigation type
	Estuary Sea Blite	Wetland	W	0.0022	0	MND #4411		Rose Creek/ Mission Bay	Bike/ped path/ bridge	4 to 1	0.0092	Mitigation credits Stribley Marsh Bank



MSCP Management Actions Report



January 1, 2011—December 31, 2011

*City of San Diego
Park and Recreation Department &
Public Utilities Department*



Introduction

MSCP Management

The Multiple Species Conservation Program can only be successful through informed management of conserved lands. The City of San Diego employs 67 staff who participate in open space management, including rangers, biologists, planners, reservoir managers, a code compliance investigator and pesticide applicator.

Summary

This report will provide a summary of the myriad management projects undertaken in 2011. Adaptive management projects include habitat improvement and restoration, invasive species removal, access control, trash and debris removal, enforcement, abatement of homeless encampments and volunteer training.

Environmental education is a vital part of our natural resource stewardship. Thousands of children visit our two nature centers, and hundreds more participate in environmental education through partnerships with nearby schools, nature programs, guided walks and kiosks. The Mission Trails Visitor Center recorded 9,354 visitors in May alone!

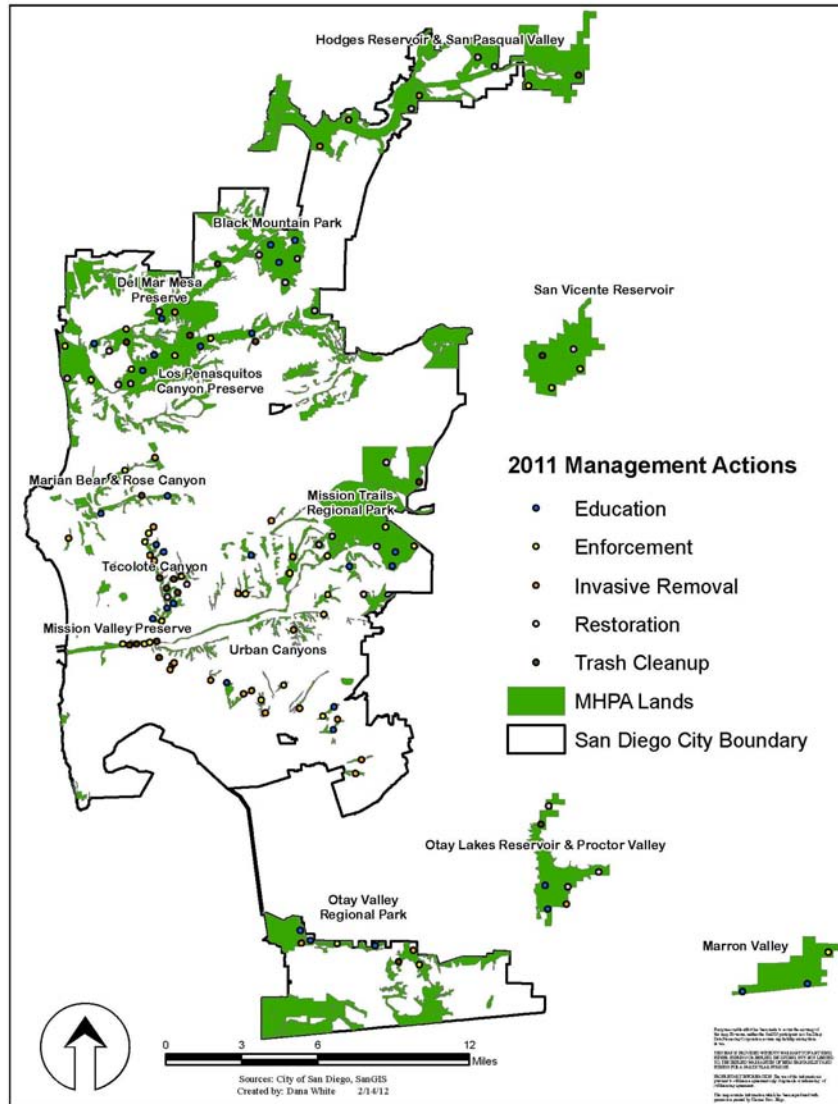


Many of our projects were com-

pleted in partnership with non-profit groups. Please take time to review our incredible list of partners on the last page.

We thank you for your interest in San Diego's conserved lands, and invite you to take a look at the projects that we worked on in 2011.

We thank you for your interest in San Diego's conserved lands, and invite you to take a look at the projects that we worked on in 2011.





Hodges Reservoir & San Pasqual Valley

Located south of Escondido, Hodges Reservoir and San Pasqual Valley represent one of the largest continuous blocks of habitat in the MSCP. These MSCP Cornerstone Lands support valuable riparian habitat and wetlands along the San Dieguito River and its tributaries, and are an important east-west wildlife corridor. Core populations of California gnat-catcher, cactus wren and Encinitas baccharis occur at the site.

Management Actions

- Implementation of TransNet EMP grant to develop Integrated Weed Management Plan for San Pasqual Valley and invasive removal along Santa Maria Creek—on-going
- Coordinated with San Diego Zoo's Institute for Conservation Research for cactus wren restoration TransNet EMP grant implementation—on-going
- Continued ORV and illegal dumping enforcement and cleanup—on-going
- Revision of lease boundaries to compliment habitat conservation as leases are renewed—on-going
- Partner with County of San Diego and SDRP Conservancy to eradicate invasive flora—on-going
- Partner with SDRP JPA for cow bird and bullfrog control programs —on-going
- Closed illegal/volunteer trails at Hodges Reservoir—on-going
- Collaborated with SANDAG/CalTrans on wetlands restoration project in San Pasqual Valley—on-going
- Removal of dumped materials—December



Coast Prickly-Pear



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Black Mountain Park

Black Mountain Park is west of I-15 and harbors habitat for California Gnatcatcher as well as other species. Black Mountain also provides a natural experience for nearby residents.

Management Actions

- Park-wide trail monitoring and maintenance—monthly
- Created/printed park interpretive brochures—June
- Hosted volunteer party in conjunction with Friends of Los Penasquitos Canyon Preserve events to improve Cactus Wren habitat through a \$76,000 grant received from the Natural Resources Conservation Service —March
- Ranger-led interpretive hikes—August, September
- Release of one rehabilitated bobcat with Project Wildlife with ongoing monitoring by park rangers—November
- Black Mountain Open Space Park Natural Resource Management Plan finalized; document currently undergoing CEQA review



San Diego Thornmint

Sabre Springs Open Space

- Posted and removed illegal encampment with Environmental Services Code Compliance staff—June
 - Completed fencing repairs (\$7,000)—July
 - Trail monitoring and repair—September - November
-



Los Penasquitos Canyon Preserve

Los Penasquitos Canyon Preserve is an urban resource-based park that functions as an east-west corridor through the heart of San Diego. This area is visited frequently by recreationalists and makes nature accessible to local residents. Citizen interest in the preserve led to the development of the well-known Friends of Los Penasquitos Preserve and the San Diego Tracking Team.

Management Actions

- Park-wide trail monitoring and maintenance—monthly
- Park-wide weeding efforts—monthly
- Hosted 16 volunteers on two days to close redundant trails in native habitat—March
- Posted illegal encampment—March
- Native habitat restoration near waterfall with Grand Del Mar volunteers—April
- Hosted Creek to Bay cleanup—April
- Hosted Qualcomm Cares volunteer event with 34 participants—May
- National Trails Day (co-hosted with County of San Diego) volunteers installed 200 feet of protective fencing—June
- Created/installed 4 trail systems signs to limit off-trail use—June
- Ranger-led interpretive program for La Jolla Learning Lab—June
- Public outreach via cover article in *92129 Magazine*—October



Volunteers planting native plants



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Del Mar Mesa and Carmel Mountain

Del Mar Mesa and Carmel Mountain are core biological areas north of Los Penasquitos Preserve. Known for their vernal pool habitat, the areas also supports migratory birds and large mammals such a mule deer.

Del Mar Mesa

- Park-wide trail monitoring and maintenance—monthly
- Placed cobble rings around vernal pools within utility access road—February
- Final report of trail use study completed—March
- Installed protective measures for vernal pools near trails—April
- Removed invasive stinkwort from Cooper Canyon trailhead—June
- Finalized Area Specific Management Directives included in Carmel Mountain/Del Mar Mesa Natural Resource Management Plan; plan currently under review by elected decision-makers for City adoption.

Carmel Mountain

- Fenced trail section affected by utility truck access—January
 - Multiple ranger-led walks for 4th grade science students at Ocean Air Elementary—January
 - Removed graffiti and repaired vandalized fences—April
 - Replaced vandalized interpretive signs with A1 Fire volunteers—May
 - Coordinated with Chaparral Lands Conservancy on grant-funded restoration project for vernal pools and short-leaved dudleya—February, June - September, November
 - Coastal Clean-up Day volunteers (9) removed 100+ pounds of dumped material—September
 - Five ranger-led interpretive hikes for 4th graders from Ocean Air Elementary—September, November
 - Installed vernal pool depth measurement devices for grant-funded restoration project—November
-



Mission Trails Regional Park

Mission Trails Regional Park is the largest and most well-known open space park in San Diego. The park provides ample space for wildlife, including large mammals, and also harbors a diverse cultural history.

Management Actions

- Park-wide enforcement—daily
 - Park-wide trail monitoring and maintenance—weekly
 - Protective fencing installation as necessary based on trail monitoring—monthly
 - Park-wide signage plan and installation—monthly
 - Removal of BMX site—February, March
 - Hand-weeding, herbicide and fencing of San Diego Thornmint and San Diego Ambrosia—winter and spring
 - Ranger-led presentations to Lake Murray Community Church and 30th & Adam—August
 - Removal of 2,000+ sq ft of invasive vegetation—August, September
 - Removal of four illegal dumps—August
 - Ranger-led orientation for six Eagle Scout candidates—August
 - Ranger-led presentation to Salk Lake Community College—September
 - Hosted four clean-up events with 584 total volunteer hours—September
 - Removal of two illegal dumps—September
 - Native cactus restoration—October
 - Contracted herbicide of invasive species at Deerfield, the San Diego River, Sycott Wash, and Sycamore Canyon—October
-



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Mission Trails Regional Park

Management Actions, Continued

- Removal of *Arundo*, tree tobacco, and other invasive plants along Jackson drainage and Deerfield Staging Area—November
- Replacement of vandalized interpretive sign on Cowles Mountain—November
- Redesign of kiosk interpretive display near Visitor Center—November, December
- Release of six rehabilitated raccoons with Project Wildlife near Kumeyaay Lake—November
- Development of natural resource management plan/area specific management directives for Mission Trails Regional Park — on-going

Mission Trails By the Numbers

Visitor Center Attendance = 85,047

Visitor Center Volunteer Hours = 3,797

Volunteer Patrol Hours = 392

Nature Adventure Program Attendance = 389 adults and 645 children

Trail Guide Walk Attendance = 3,716 adults and 2,788 children

K-2nd Grade Program Attendance = 543

3rd Grade Program Attendance = 1,551

4th Grade Program Attendance = 385

5th-6th Grade Program Attendance = 103

Kidz Watch Program Attendance = 169 adults and 211 children

Eagle Scout Volunteer Hours = 960

Community Volunteer Hours = 1,592

Community Outreach Programs = 61 for adults and 72 for children

Special Educational Programs = 68 for adults and 30 for children

Self-Guided School Program Attendance = 2,984

Mission Trails Park Foundation School Program Attendance = 2,139



Tri-Canyon Parks

The Tri-Canyon area includes Tecolote Canyon Natural Park, Marian Bear Open Space Park and Rose Canyon Open Space Park. All are large, urban canyons that function as wildlife movement corridors as well as habitat. The Mission Valley Preserve is within the San Diego River and provides habitat for the endangered Least Bell's Vireo.

Tecolote Canyon Natural Park

- Park-wide patrols and trash collection—weekly
 - Removed 20 homeless encampments and compiled homeless individual/encampment census—January
 - Removal of 150+ palms—February
 - Removed 50 cubic yards total of invasive plants during Weed Warriors event—January, September
 - Five community outreach talks in response to neighborhood concerns about coyotes—January, August
 - Removed a total of 500 pounds of invasive plant material at restoration site with Canyon Crusaders volunteers—February, September, October
 - Removed three homeless encampments—February
 - Removed a total of 10 illegal dumps—February, September
 - Supervised court-ordered volunteer for litter removal along park boundaries—February, September
 - Treated invasive castor bean and onion weed—February, March, September
 - Hosted Canyon Day clean-up with 150 volunteers removing 40 cubic yards of debris—March
 - Developed updated volunteer training program—April - December
 - Removed seven homeless encampments—May
 - Installation of new kiosk memorializing conservation of Tecolote Canyon by Eagle Scout—July
 - Removed five homeless encampments—September
 - Ranger-led interpretive hike for 36 Kearny High School students—October
 - Initiated updated kiosk information program—October
 - Removed four homeless encampments—November
-



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Tri-Canyon Parks

Marian Bear and Rose Canyon

- Six ranger-led interpretive hikes—January
- Removed eight garbage bags of invasive thistle with University City High School Roots and Shoots Club—February
- Removed homeless encampment—February
- Coordinated with location of Golden Spotted Oak Borer traps with UC Riverside research staff—June
- Installation of new kiosk with information on native plants by Eagle Scout—July
- Report, removal and prosecution relating to illegal dump—July

Mission Valley Preserve

- Surveyed for new and returned homeless encampments with SDPD—monthly
 - Contracted/supervised probation crew 1 day/week to remove 10 tons of trash and debris from homeless encampments—February, March
 - Rangers met with SDPD, SDFD, CalTrans, SDGE, MTS, Friends of Mission Valley Preserve and San Diego River Park Foundation to discuss coordination and protocol for response to illegal trespassing and homeless encampments and overall park safety—March, August, November
 - Hosted clean-ups with Tri-Canyon Volunteers and San Diego River Park Foundation—April
 - Hosted two volunteer clean-ups with removal of 10+ tons of trash following posting of homeless encampments—July, August
 - Removed 10 homeless encampments—September
 - Hosted San Diego River Park Foundation “Green Team” clean-up event—October
-



Urban Canyons

The urban canyons of the MHPA are scattered throughout the City of San Diego. Although small and subject to intense pressures, many continue to support native plants and wildlife. In fact, many of the large canyons are habitat for the sensitive California Gnatcatcher and Cactus Wren. Management actions can counteract the effects of isolation and edge effects to maintain the habitat provided by these canyons.

Management Actions

- Ranger patrols and stewardship management—monthly
 - Hosted San Diego Audubon event for two school groups planting native species in Ruffin Canyon—January
 - Hosted two Ocean Discovery Institute school programs in 32nd Street Canyon—January
 - Contracted/supervised invasive plant removal in Navajo Canyon by Alpha Project and Urban Corps—January - April
 - Removed homeless encampments and illegal dumps at Manzanita Canyon, 47th Street Canyon, and Swan Canyon—January
 - Installed regulatory signage at Radio Canyon and La Jolla Open Space—January
 - Invasive species treatments at restoration sites citywide—January, February
 - Supervised invasive removal and oak planting by King Chavez High School students at Switzer Canyon—January
 - Coordinated contractor and Ocean Discovery Institute volunteers to remove *Arundo* in Swan Canyon—February
 - Hosted two San Diego Audubon events for school groups planting native species in 32nd Street Canyon and Swan Canyon—February
 - Installation of signage at Goat Mesa/Spring Canyon in Otay Mesa—February
-



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Urban Canyons

Management Actions, Continued

- Supervised native species restoration by Kearny High School students—February
 - Removed homeless encampments and illegal dumps at Manzanita Canyon, Swan Canyon, and Mira Mesa Open Space—February
 - Installed regulatory signage at Radio Canyon and La Jolla Open Space—February
 - Hosted invasive removal event by Canyonlands and Francis Parker School student volunteers—March
 - Coordinated volunteer clean-up event with Ocean Discovery Institute and Canyonlands in Swan Canyon—March
 - Hosted *Arundo* removal event by REI volunteers in 47th Street Canyon—March
 - Removed homeless encampments and illegal dumps at Manzanita Canyon and Swan Canyon—March, June
 - Hosted volunteer clean-up event in Paradise Canyon—April
 - Contracted/supervised invasive plant removal by Urban Corps in Manzanita Canyon, Chollas Canyon, Ruffin Canyon, Radio Canyon, and Jacaranda Bowl—April
 - Hosted volunteer clean-up event in McGonigle Canyon—April
 - Hosted *Arundo* removal event in 47th Street Canyon—April
 - Removed homeless encampments and illegal dumps at Cervantes Canyon and Navajo Canyon—April
 - Installed regulatory signage at Pottery Canyon, Maple Canyon and Battle Mountain Open Space—April
 - Removed homeless encampments at Kensington Open Space and Navajo Canyon—May
-



Urban Canyons

Management Actions, Continued

- Coordinated with San Diego Police Department for transient camp removal in Manzanita Canyon and Swan Canyon—June
 - Coordinated with Ocean Discovery Institute on grant applications—June, November
 - Hosted volunteer clean-up event in Swan Canyon—July
 - Removed homeless encampments at Cervantes Canyon and Encanto Expressway Open Space—August
 - Open Space planners, biologists and rangers finalized the Canyon Project Assessment form for non-profit canyon enhancement project review/approval—August
 - Rangers assisted City Heights Canyon Alliance in development of a four-canyon restoration prioritization plan—August
 - Contracted/supervised non-native tree removal by Alpha Project in Manzanita Canyon—September
 - Removed homeless encampments at Paradise Canyon and Chollas Radio Canyon—September
 - Rangers assisted City Heights Canyon Alliance with stakeholder planning meetings for Manzanita Canyon and Swan Canyon—September
 - Rangers assisted Friends of Switzer Canyon with updating canyon enhancement plan, volunteer organization and a native species planting event—November
 - Ranger-led interpretive hike for Ocean Discovery Institute staff in Manzanita Canyon—December
 - Rangers assisted Groundworks Chollas in development of canyon enhancement plan and ROE requirements—December
 - Hosted volunteer clean-up at Gonzalez Canyon—December
-



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Urban Canyons



Management Actions, Continued

Monthly coordination on invasive removal and native plant restoration projects with:

- Friends of Ruffin Canyon
 - Friends of University Heights Open Space
 - Friends of Gonzalez Canyon
 - Friends of Navajo Canyon
 - Friends of Chollas Creek
 - Friends of Juniper Canyon
 - Friends of 47th St Canyon
 - Friends of Switzer Canyon
-

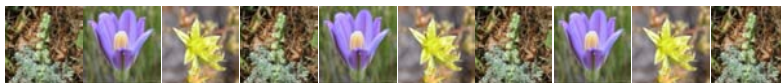


Otay Valley Regional Park

Otay Valley Regional Park is an east-west corridor surrounding the Otay River in southern San Diego. The park supports Least Bell's Vireo and rare native plants, such as *Cordylanthus orcuttianus*.

Management Actions

- Park-wide enforcement—daily
 - Park-wide trail monitoring and maintenance—weekly
 - Ranger-led interpretive hikes—monthly
 - Directed Donovan Prison work crews in removal of trash, invasive species (especially *Chrysanthemum*) and homeless encampments—monthly
 - Removed illegal encampments and coordinated with SDPD's Homeless Outreach Team to offer services to disadvantaged individuals—monthly
 - Teamed with WildCoast to provide environmental education to nearby community and schools—January, February
 - Partnered with WildCoast, REI, USFWS, and Girl Scouts for clean-up of National Wildlife Refuge and Otay Valley Regional Park attended by over 120 volunteers; a total of 8+ tons of trash, debris, and invasive plant material were removed—January, July, August
 - Contracted/supervised removal of 16+ tons of historic dumping by California Conservation Corps along Kaanapali Way and installed seven No Dumping and No Trespassing signs in the area—February
 - Hosted Habitat Heroes environmental education day for 100+ location students and teachers—February
 - Rangers attended outdoor recreation conference with focus on connecting children with nature—February
 - Rangers met with USFWS, Chula Vista PD and San Diego PD to discuss coordination and protocol for response to illegal activity reports and overall park safety—March - May, July
-



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Otay Valley Regional Park

Management Actions, Continued

- Hosted Habitat Heroes environmental education day for 80+ students and teachers—March
 - Awarded National Environmental Fund Grant for \$300,000 for interpretive panels and benches—April
 - Hosted 22 volunteers from I Love a Clean San Diego who removed over 1 ton of trash, debris and recyclables—May
 - Installed 9 updated kiosk maps with volunteer assistance—May
 - Hosted 1st Annual Otay Valley Regional Park Day with over 280 visitors and 14 NGOs/agencies in attendance; included two ranger-led nature walks, one bird-watching walk, and a Native American program—June
 - Hosted clean-up event for 10 Sprint volunteers—June
 - Partnered with WildCoast and USFWS for clean-up of Southbay National Wildlife Refuge and Otay Valley Regional Park attended by 15 volunteers; 2+ tons of trash was removed—July
 - Hosted clean-up event for 15 Sprint and WildCoast volunteers—August
 - Ranger-led safety sweep of OVRP with 11 SDPD, CVPD and State Probation officers—October
 - Hosted Habitat Heroes environmental education day for 45 students and 6 staff from Silver Wing Elementary School with WildCoast—November
 - Hosted 80 volunteers from Girl Scouts and Francis Park High School who removed 40 cubic yards of ice plant as part of on-going native habitat restoration project with WildCoast—December
-



Proctor Valley and Otay Lakes Reservoirs

Located east of Chula Vista, Upper and Lower Otay Reservoirs and Proctor Valley comprise approximately 2,782 acres designated Cornerstone Land under the MSCP. The properties sustain valuable riparian habitat, vernal pools and high quality coastal sage scrub that supports over 40 pair of California gnatcatchers.

Management Actions

- Hosted volunteer clean-up event with Chaparral Lands Conservancy—October
- Continue working with Border Patrol to educate agents on the effects of off-road vehicle use—on-going
- Collaborated with Chaparral Lands Conservancy to develop vernal pool restoration and enhancement plan for Proctor Valley—on-going
- Removal of dumped materials—as needed



Navarretia fossalis at Otay Lakes



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Marron Valley

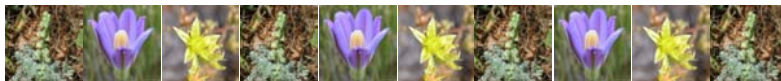
Marron Valley is located at the confluence of Cottonwood Creek and Tecate Creek along the Mexican border. The property is approximately 2,529 acres and is designated Cornerstone Land under the MSCP. Marron Valley supports riparian habitat, vernal pools and several populations of rare MSCP-covered plants.

Management Actions

- Continued native grassland restoration project—on-going
- Continued working with Border Patrol to educate agents on the effects of off-road vehicle use—on-going
- Clean-up of illegal dump sites and access control on Cornerstone Lands—on-going
- Development of Management Plan for Cornerstone Lands—on-going



California Goldfields at Marron Valley



Other Open Space Areas

Crest Canyon

- Trail maintenance and monitoring—December

San Vicente Reservoir

- Enforcement and access control—on-going
- Trash clean-up—monthly
- Mapped *Arundo* on West fork of San Vicente Creek

Tierrasanta Open Space

- Hosted Friend's of Tierrasanta Open Space work group—monthly
- Hosted 21 Boy Scout volunteers to remove invasive plants and litter from restoration site—April
- Hosted 17 Francis Parker Middle School student volunteers to remove invasive plants and litter from restoration site—April, May
- Installed birds houses, bat boxes, and owl boxes donated by Boy Scout project—May

City-wide Projects

- Improved stormwater drainage to minimize pollution and habitat damage through natural flow dissipaters such as swales planted with native—on-going
 - Open Space-funded Code Compliance Investigator workload included 67 cases identified, 15 cases opened, 26 cases closed — January-December
 - Developed short films for web distribution on topics such as wildlife corridors, vernal pools, native vegetation communities, Golden Spotted Oak Borer—view at <http://tinyurl.com/7b4cfxb>
 - Open Space Pesticide Applicator conducted invasive plant control in 32nd St Canyon, Adobe Falls Open Space, Albatross Canyon, Carmel Valley Open Space, Chollas Creek Open Space, Chollas Parkway Open Space, Chollas Radio Canyon, Encanto Expressway Open Space, Gonzalez Canyon, Guymon Arms Canyon, Juniper Canyon Open Space, Kensington/College Open Space, La Jolla Heights Open Space, La Zanja Canyon, Los Penasquitos Canyon Preserve, Maple Canyon, McGonigle Canyon, Mission Trails Regional Park, Navajo Canyon, Paradise Canyon, Pottery Canyon, Rancho Mission Canyon, Ruffin Canyon, South Bay Terraces Open Space, Stadium Village Open Space, Tecolote Canyon Natural Park—yearlong
-



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Thanks to our Partners

- Allied Waste
 - Boy Scouts/Girl Scouts of America
 - Canyon Crusaders
 - Chaparral Lands Conservancy
 - City Heights Canyon Alliance
 - Grand del Mar
 - Groundworks Chollas
 - Francis Parker Schools
 - Friends of 32nd Street Canyon
 - Friends of 47th Street Canyon
 - Friends of Chollas Creek
 - Friends of Gonzalez Canyon
 - Friends of Juniper Canyon
 - Friends of Los Penasquitos Canyon
 - Friends of Mission Valley Preserve
 - Friends of Navajo Canyon
 - Friends of Rose Canyon
 - Friends of Ruffin Canyon
 - Friends of Switzer Canyon
 - Friends of Tierrasanta Canyons
 - Friends of University Heights Open Space
 - Habitat Heroes
 - I Love a Clean San Diego
 - Kearny High School
 - King/Chavez High School
 - Mormon Helping Hands
 - Ocean Discovery Institute
 - Project Wildlife
 - REI
 - San Diego Audubon
 - San Diego Canyonlands
 - San Diego River Park Foundation
 - San Dieguito River Valley Conservancy
 - Sprint
 - Tri-Canyon Volunteers
 - University High School Roots and Shoots Club
 - Weed Warriors
-



Thank you for your support
of natural open space within the City of San Diego!

For questions or to volunteer, please contact:

Betsy Miller
MSCP Biologist
(619) 685-1314
bmiller@sanidiego.gov





Canyon Sewer Cleaning Program and Long Term Sewer Maintenance Program Progress Report

City of San Diego
Public Utilities Department



September 2011

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ATTACHMENTS

Attachment A – Canyon Restoration/Revegetation Projects (2008-2011) July 2011 Status Report Table

Cover: California Poppy (Eschscholzia californica)

EXECUTIVE SUMMARY

In response to an Administrative Order from the U.S. Environmental Protection Agency, and in an effort to reduce sewer spills and beach closures, the City of San Diego's Public Utilities Department (PUD), formerly the Metropolitan Wastewater Department (MWW), has adopted the Canyon Sewer Cleaning Program and the Long-term Canyon Sewer Maintenance Program (Program) to access, clean, and repair miles of sewer infrastructure located in canyons and other environmentally sensitive areas. On July 15, 2004, the City of San Diego Planning Commission approved Coastal Development Permit No. 13506 and Site Development Permit No. 13507 for the Program. This annual report, as required by permit condition 27, provides a Progress Report to the Open Space Canyons Advisory Committee (OSCAC) on the Program for the year from July 2010 through June 2011. The report summarizes the status on planning and implementation of projects within the reporting year, including redirection of flow studies, long term access planning, construction and emergency projects, and the status of restoration/revegetation and mitigation for the projects.

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LONG TERM ACCESS PROJECTS

Long Term Access Projects are to provide access paths for routine maintenance and emergency repairs. One of the first steps in determining whether an access path is needed is to prepare a Redirection of Flow (ROF) study. A ROF study evaluates the economic feasibility of removing all or part of the sewer from the canyon versus providing access to the sewer if it remains in the canyon. Through July 2011, sixty-two ROF studies have been completed.

Staff continue to prepare and submit Process 2 (Substantial Conformance Review- SCR) applications to the Development Services Department (DSD) for a determination whether the proposed mitigation, restoration and access planning for individual canyon areas is in conformance with the Program Environmental Impact Report (PEIR). From July 2010 to June 2011 two projects have been submitted to DSD and have been approved:

- Lopez Canyon
- Lexington Canyon

PUD previously identified 15 canyons as priority canyons for long-term access implementation. The following canyons are in the process of implementation:

- 45th & Boston—all field work for this canyon has been completed. The paths have been surveyed and marked, vegetation has been cleared and wood chips have been installed on the path. Waste Water Crews (WWC) are in the process of doing long-term maintenance. PUD has received preliminary title reports; property and easement acquisition are in process. Currently this canyon is pending an appraisal and City Council approval to acquire property.
- Black Mountain—staff has completed all of the field work for this canyon. The access paths have been surveyed; the legal descriptions and plat maps have also been completed. An easement with the County of San Diego has been recorded on the property and no additional easements are required. Staff are finalizing a Memorandum of Understanding (MOU) with the Parks and Recreation Department.
- Alvarado— The design for this project is 100% complete. PUD staff are starting on the permits, property acquisition, final design review, and developing contract documents.
- Park Mesa—Construction of the Long-Term Access Path was completed in March 2011, with minor refinements to be completed in July/August 2011. PUD staff obtained right of entry permits to construct the project and is working with the State of California/National Guard, United States Navy, San Diego Unified School District, and San Diego Center for Children for easement acquisition. It is anticipated that it will take approximately 1 to 2 years to finalize the easements.



Park Mesa – Long Term Access Path

This past year, PUD staff started working on the design and partial implementation on seven new Long-Term Access (LTA) projects:

- Carroll Canyon—the Design Request for Proposals (RFP) was completed and consultant proposals solicited. The Notice to Proceed (NTP) was withheld following receipt of the proposal due to substantial cost. Staff are continuing to address the environmental reporting and permits for the upland component and is in the process of researching alternatives for the wetland crossings.
- Van Nuys—the Draft Access Recommendation has been completed and under review. The Final Access Recommendation and access planning will follow.
- Rancho Mission— The design for this project is 60% complete. PUD staff are starting on the permits, property acquisition, final design review, and developing contract documents.
- 32nd Street— The design for this project is 90% complete. PUD staff are starting on the permits and developing contract documents. The 32nd Street upland areas have had wood chips installed and WWC are using the access for sewer maintenance in the upland areas.



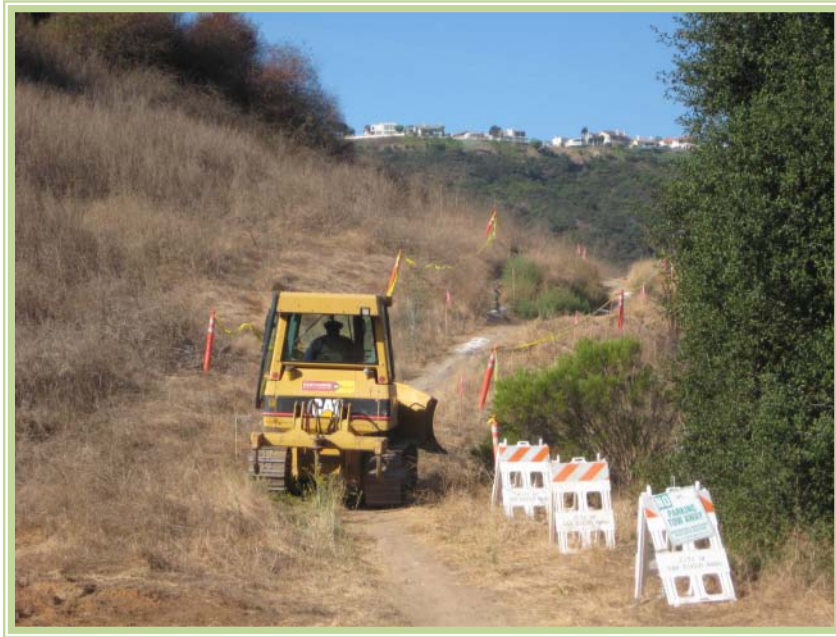
32nd Street Canyon

- Tecolote - The Long-Term Access Design for East Tecolote Canyon will be completed in Fall 2011.
- Tecolote Bridge and Upland Paths – A prefabricated fiberglass bridge was installed by City Forces in March of 2011. Storm water erosion controls were installed following completion of the bridge. A similar project is being planned in another part of the canyon (Mt Elbrus). Newly delineated pathways in central Tecolote Canyon were marked with the installation of wood chips to minimize weed growth and prevent erosion.



Tecolote Canyon- New Access Bridge

- San Clemente Canyon – Partial Long-Term Access Implementation has begun with new path segments located in uplands being constructed.



San Clemente Canyon- New Access

In addition to the above programs, the department has increased its efforts to inventory and map existing access to sewers in canyons. This inventory provides information on existing access conditions, identifies access needs and areas of concern (i.e. erosion), and facilitates ongoing maintenance. To date, 150 miles of pedestrian and vehicular paths have been mapped with the GPS data for 116 canyon areas.

CONSTRUCTION AND EMERGENCY PROJECTS

During this reporting period nine Capital Improvement Program (CIP) projects were completed or are still in construction: Phase H-1 Sewer Rehabilitation, Mission Center Canyon B, Alvarado Court Accelerated, Sewer Group 665, South Mission Valley Trunk Sewer, Lake Murray Trunk Sewer, Old Rose Canyon Trunk Sewer Relocation, USIU-Miramar Trunk Sewer Replacement, and Sewer Group 785 Canyon. Planning and permitting is complete or in process for a number of additional projects that are anticipated once contracting is complete or funding is available. These include the, Group Job 691, Group Job 799, Sewer Group 698, Alvarado Trunk Sewer Phase 3, and Balboa Terrace Trunk Sewer.

Since July 2010, emergency projects and/or pipeline repair projects occurred in the following 22 canyons or environmentally sensitive areas:

Emergencies

- Dove (pipe protection)
- Rose Creek (sinkhole and pipe repairs)
- San Clemente (pipe protection)
- Montezuma Road Canyon (spill cleanup)
- Central Tecolote Canyon MH 159 (manhole repair/protection)
- Balboa Park Area (pipe repair)
- Pershing and 26th (spill)
- Hwy 163 (sewer rehab, spot repair)
- Euclid and Menlo (pipe protection)
- Hotel Circle in Dove Canyon (pipe replacement)
- Lake Murray (equipment failure)
- Lake Hodges (vault repairs)
- Adobe Falls (manhole maintenance)
- Los Penasquitos Manhole 5 Repair (manhole maintenance)

Other construction projects

- 33rd and Maple in Chocolate Canyon (pipe repair)
- 163 North (spot repairs)
- Santo and Remora (pipe repairs)
- Upas Street (pipe repair)
- Adobe Falls (manhole raising)
- 32nd and Palm in Switzer Canyon (pipe repair)
- Tijuana River Valley (manhole raising)
- Huckleberry/32nd Street Canyon (spot repair)

Biological assessments or reports have been prepared for these emergency and construction projects. Revegetation has been implemented for impacts in Tecolote, Dove, Rose, San Clemente, Pershing and 26th, Lake Murray, Euclid and Menlo Canyon, 32nd St/ Huckleberry, Shepherd, SR-163 North & South, Juniper, Los Penasquitos, North Chocolate, Lake Hodges, and Switzer.



1830 Upas Street Sewer Pipeline Repair



Rose Sinkhole Habitat Restoration

REVEGETATION/RESTORATION STATUS

Conditions of the Master permit require revegetation/restoration of access paths and impact areas.

Since the start of the Program, over 85 revegetation/restoration projects have been implemented. Maintenance and monitoring includes hydroseeding or hand-seeding, weeding, installation or reinstallation of container plants, mulching or wood chips on the path, installation of temporary Best Management Practices (BMPs), site monitoring or a combination of the above treatments. Seed is used and collected from sites within 25 miles of the coastline in San Diego County. Maintenance and monitoring of the sites will continue for 25 months or until successful erosion control is achieved on the paths and/or restoration goals are met outside of the paths.

During this reporting year, six projects were completed. In addition to ten ongoing projects, thirteen additional sites were installed and maintenance and monitoring of these sites was initiated.

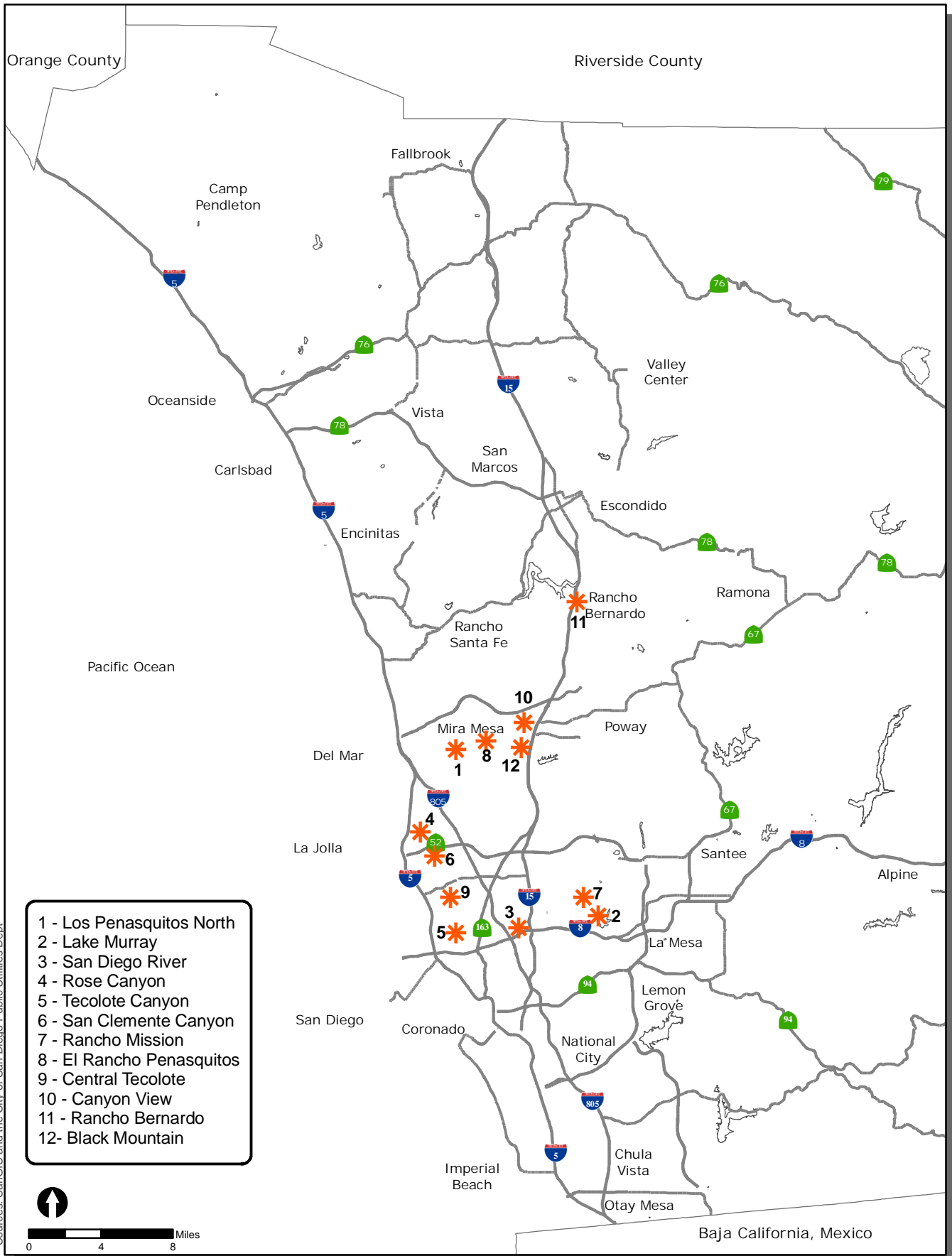
Updates of the status of the restoration/revegetation projects are a regular agenda item at OSCAC's meetings. See Attachment A for the July 2011 update.



Oklahoma Street Revegetation Project

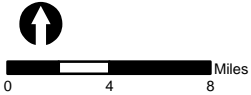
MITIGATION STATUS

In accordance with applicable local, state, and federal regulations, restoration, revegetation, or mitigation is required for significant biological impacts resulting from the Canyon Program, such as the creation of access paths through environmentally sensitive areas, emergency repairs, and pipeline replacement projects. In order to mitigate these impacts, PUD staff has identified and implemented a number of mitigation projects located within various watersheds where past, current, or future impacts have or may occur. The location of these projects is shown in Figure A. The status of each habitat mitigation project is summarized below.



Sources: SanGIS and the City of San Diego Public Utilities Dept.

- 1 - Los Penasquitos North
- 2 - Lake Murray
- 3 - San Diego River
- 4 - Rose Canyon
- 5 - Tecolote Canyon
- 6 - San Clemente Canyon
- 7 - Rancho Mission
- 8 - El Rancho Penasquitos
- 9 - Central Tecolote
- 10 - Canyon View
- 11 - Rancho Bernardo
- 12 - Black Mountain



**PUD Mitigation Sites
Overview Map** FIGURE
A

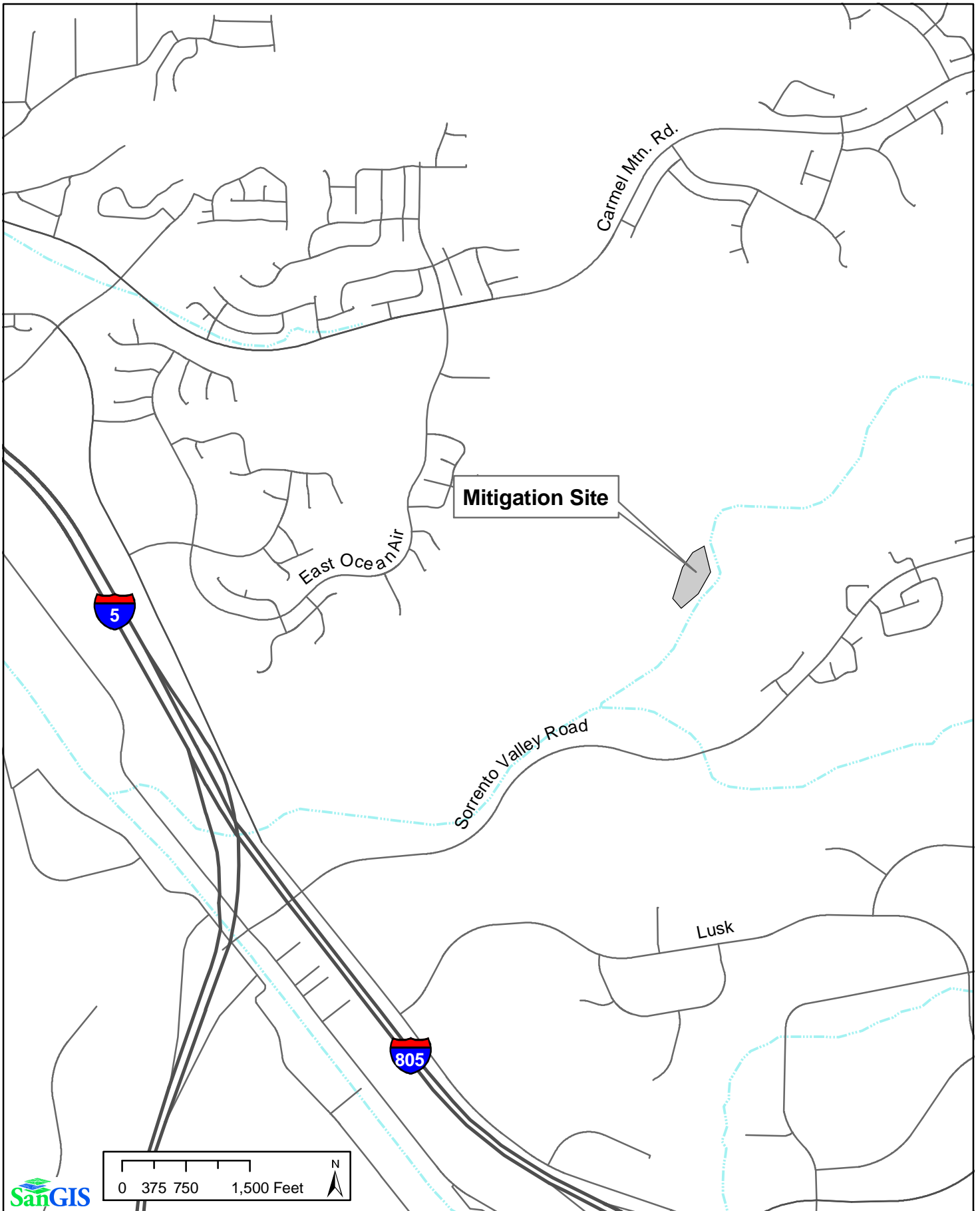
Los Peñasquitos North Wetland Creation Project

The Los Peñasquitos North Wetland Creation Project is located in the City of San Diego's Los Peñasquitos Canyon Preserve in the community of Peñasquitos, just north of the Los Peñasquitos Creek (Figure 1). The site is composed of 3.8 acres of wetland habitat, including 3.15 acres of southern willow scrub, 0.43 acres of cottonwood/sycamore woodland, and 0.22 acres of freshwater marsh. The site also includes one acre of coastal sage scrub habitat to serve as a buffer on the north edge of the site.

Construction was completed in 2006 and included removal of a portion of an existing earthen berm, eradication of non-native vegetation, grading to lower topographic elevations, construction of a park service path/recreational trail that connects to an existing public trail, installation of temporary irrigation, and installation of native wetland and upland buffer container plants and seeds. The project is currently near the end of the Year 5 long-term maintenance, monitoring and reporting program. Sign-off is anticipated for Fall 2011. Vegetative cover and diversity is high onsite with a willow (*Salix* spp.) canopy reaching heights of 12-16 feet and a dense cover of understory wetland plants that include mulefat (*Baccharis salicifolia*), yerba mansa (*Anemopsis californica*), San Diego marsh elder (*Iva hayesiana*), spiny rush (*Juncus acutus*), deergrass (*Mulhenbergia rigens*), giant wild rye (*Leymus triticoides*), saltgrass (*Distichlis spicata*), false indigo (*Amorpha fruticosa*), and blackberry (*Rubus ursinus*).



Los Peñasquitos North Wetland Creation Project site



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**Los Penasquitos North
 Wetland Creation Project**
Vicinity Map

Figure 1

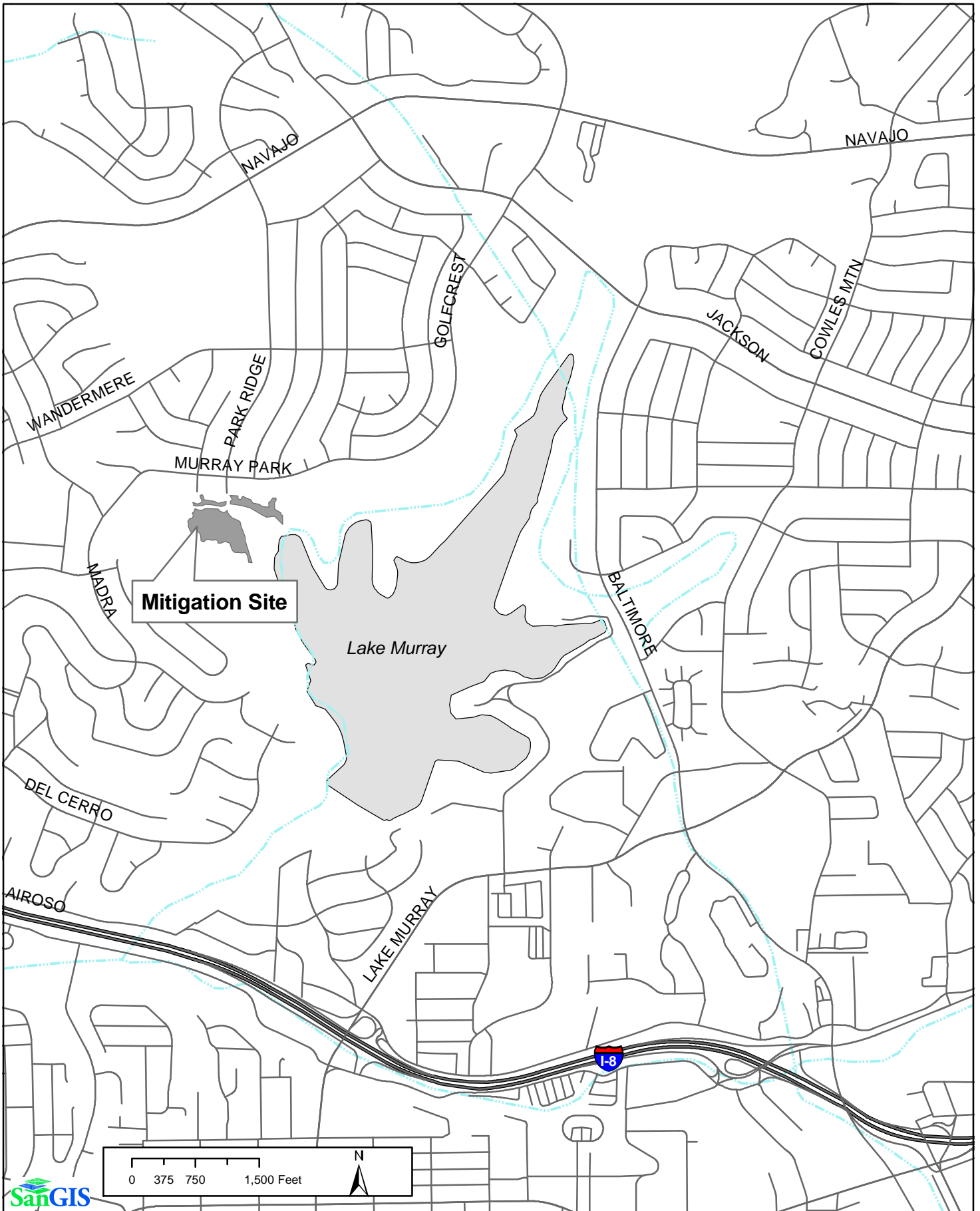
Lake Murray Mitigation Project

The Lake Murray Mitigation Project is in the City of San Diego's Mission Trails Regional Park. It is located in the area just west of Lake Murray in the Del Cerro neighborhood of the Navajo Community (Figure 2). The Lake Murray Mitigation Project was designed to provide mitigation for upland and wetland impacts associated with the PUD projects in the vicinity of Lake Murray and in the San Diego River Watershed. The mitigation site includes 2.5 acres of wetland enhancement (southern willow scrub habitat) and just over 5.2 acres of upland restoration area (Diegan coastal sage scrub). Gnatcatcher and quail have regularly been spotted foraging within the upland area.

The site was installed September 2005 through June 2006. In June 2009, the third year of long-term maintenance and monitoring for the site was completed. The site has exceeded its success criteria early and sign off was requested January 2010. Official sign-off was received from California Department of Fish and Game (CDFG) in March 2010, and we anticipate receiving sign off from Army Corp of Engineers (ACOE) in July 2011.



Lake Murray Mitigation Site



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Lake Murray Mitigation Site
Vicinity Map

Figure 2

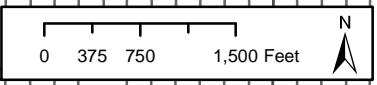
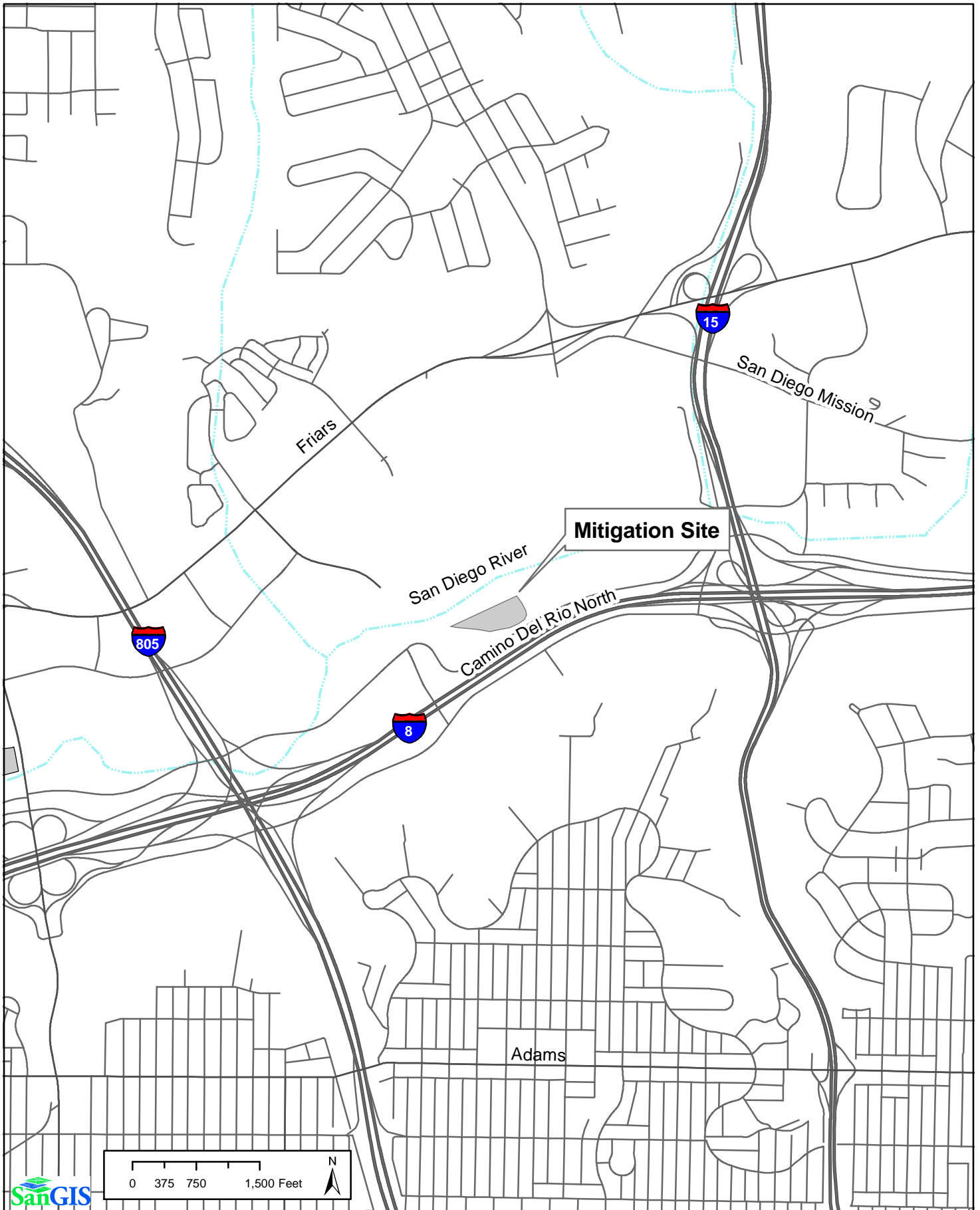
San Diego River Wetland Creation Project

The San Diego River Wetland Creation Project is located on a 13.75-acre Public Utilities owned parcel located immediately adjacent to the southerly bank of the San Diego River, north of Camino Del Rio North, west of Interstate 15, and east of Mission Center Parkway in the Mission Valley Community of the City of San Diego (Figure 3).

The site includes the creation of approximately 3.43 acres of native riparian habitat and approximately 2 acres of Diegan coastal sage scrub habitat. The project site was graded in the fall of 2005 to create a basin along the southern bank of the San Diego River. The basin was planted and hydroseeded with native species in the winter of 2005/2006 followed by a 120-Day Plant Establishment Period. The long-term maintenance, monitoring, and reporting program started June 14, 2006 and the site just completed year 5. Native vegetation is establishing well with wetland trees exceeding 12 feet in height. The wetland basin receives flows from the San Diego River during high water events (rainfall) which contributes nutrients and provides the necessary hydrology. Wildlife is utilizing the site with numerous songbird nests observed in the wetland area. As of May 2011, the site has exceeded the 80% native cover success standard outlined in the mitigation plan with 84% native cover. PUD is currently working on an MHPA boundary line adjustment to get the mitigation site included within the MHPA boundaries to help ensure long-term preservation. The project will be monitored and maintained for an additional 6-12 months until the MHPA BLA is finalized and the site obtains agency approval and sign-off.



San Diego River Wetland Creation Project site



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San Diego River
Wetland Creation Project
Vicinity Map

Figure 3

Rose Canyon Mitigation Project

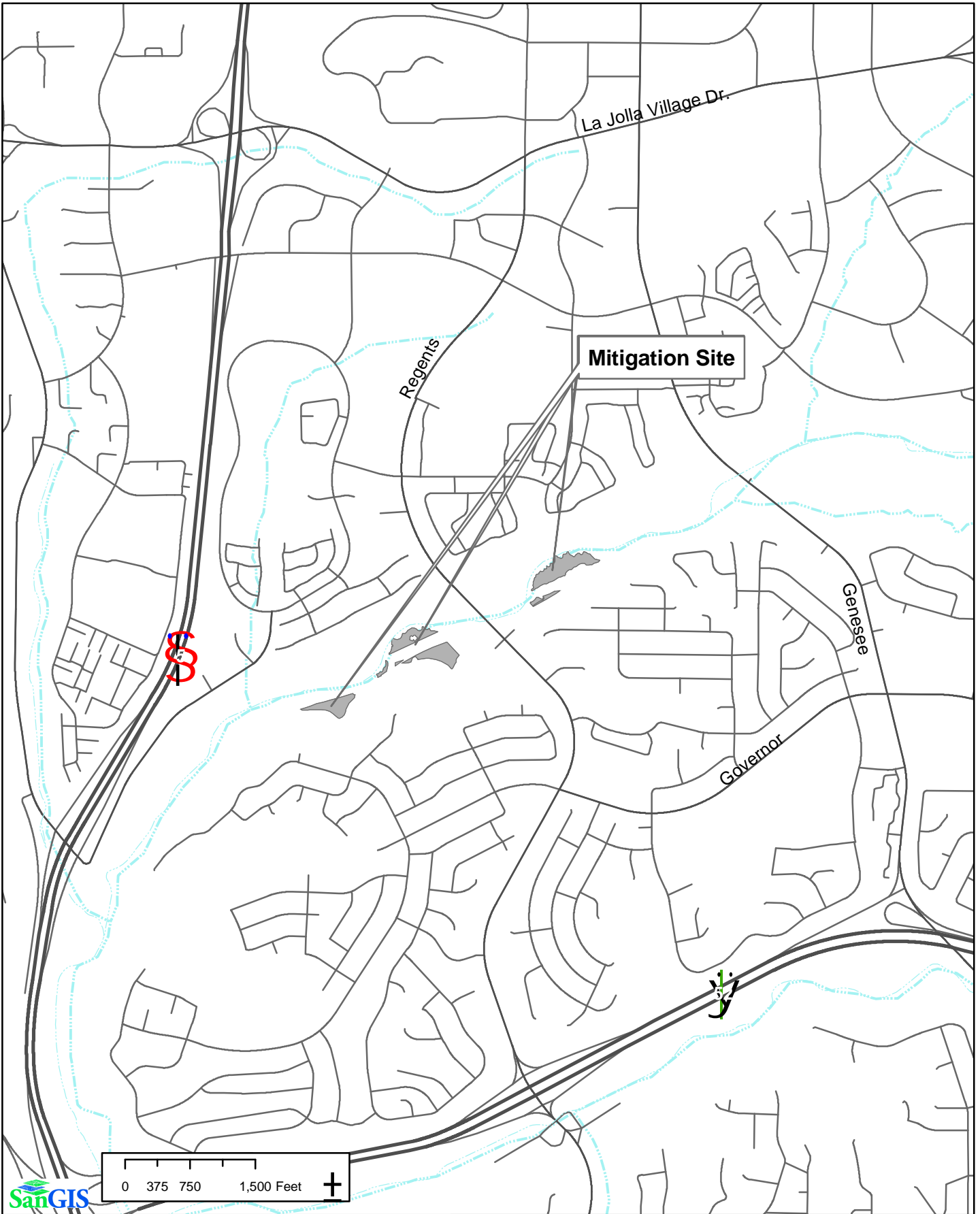
The Rose Canyon Mitigation Project is located in the Rose Canyon Open Space Park, starting approximately one half mile west of Genesee Avenue and continuing another one half mile further west into the park (Figure 4).

The project scope involved grading areas of non-native grassland adjacent to Rose Creek to allow for the establishment of suitable wetland habitat as well as filling areas to create or enhance upland habitat. The grade in non-native grassland areas was lowered to attain an elevation suitable for wetland vegetation and to match the elevation where it already existed. Gradual slopes with a ratio between 3:1 and 4:1 were established where a transition from wetland vegetation to upland vegetation was required. Soils excavated during the creation of the wetland areas were deposited on existing non-native grassland areas to establish upland habitat. Approximately 4.36 acres of oak riparian forest, southern cottonwood-willow riparian forest, and mule fat scrub were created adjacent to Rose Creek. Approximately 3.67 acres of Diegan coastal sage scrub was planted on the upland areas.

Construction was initiated in September 2007 and included clearing of non-native vegetation, grading, installation of a temporary irrigation system, planting, hydroseeding, fencing, and sign installation. The initial revegetation installation was accepted in March 2008, when the site entered the 120-day plant establishment period (PEP). The 120-day PEP was accepted and the project entered long-term maintenance on July 15, 2008. The project is currently in its fourth year of maintenance with sign off expected in the summer of 2013.



Rose Canyon Mitigation Project site



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Rose Canyon Mitigation Site
Vicinity Map

Figure 4

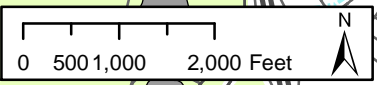
Tecolote Canyon Mitigation Project

The Tecolote Canyon Mitigation Project provides mitigation for upland and wetland impacts associated with implementation of past emergency and long term access path impacts within Tecolote, Mt. Elbrus, East Clairemont, and Manning Canyons. The Balboa site is located south of Balboa Avenue, and the Grove site is located south of the Tecolote Golf Course and north of the University of San Diego (Figure 5).

Non-native vegetation was removed from the two project sites and 1.6 acres of wetland habitat and 2.91 acres of upland habitat were created and restored within Tecolote Canyon Natural Park. These two sites support oak riparian forest, southern willow scrub, and Diegan coastal sage scrub habitats. Construction was initiated in February 2007 and continued until July 31, 2007. Final acceptance of the 120-day plant establishment period occurred in January 2008, which marked the beginning of the five-year maintenance and monitoring period. The three year success criteria of 70% coverage of wetland vegetation transects and 50% coverage of upland vegetation transects have been exceeded by all plant communities. The site is currently in the fourth year of maintenance and monitoring.



Tecolote Canyon Mitigation Project site



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**Tecolote Mitigation Site
Vicinity Map**

Figure 5

San Clemente Canyon Mitigation Project

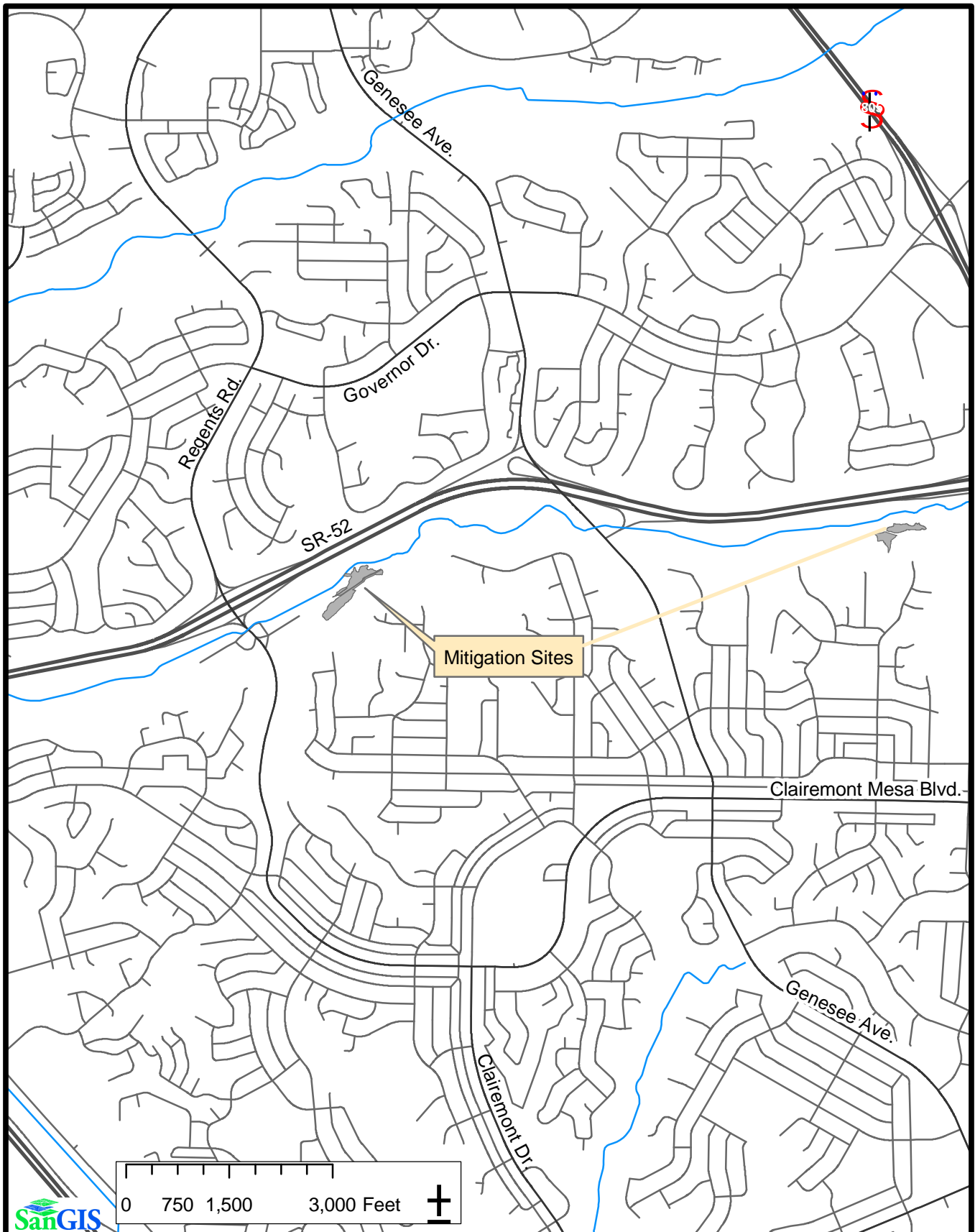
The San Clemente Canyon Mitigation Project provides mitigation for impacts associated with implementation of the San Clemente Canyon Maintenance and Access Plan as well as impacts from past emergency repairs to the sewer system within San Clemente Canyon/Marian Bear Memorial Park and surrounding watershed.

The project includes the creation of 2.2 acres of wetland habitat (southern willow riparian forest and oak riparian forest) and 3.3 acres upland habitat (Diegan coastal sage scrub and native grassland). The project is located at two sites within the park, one just east of the Regents East parking area and the other approximately three-fourths of a mile east of the Genesee parking area (Figure 6).

Construction was initiated in October 2007. The plant establishment period for the site was met in September 30, 2008. The upland and wetland planting areas for the project have shown steady establishment of target species. The majority of the upland planting areas are dominated by established Diegan coastal sage scrub and California native grassland species. One upland area at the Regents site has naturally trended to a transitional wetland habitat and may provide more wetland habitat acreage at the end of the 5 year maintenance period. The riparian areas display numerous willow trees as well as areas of willow-thicket formation. The project will continue to be monitored and maintained for 3-5 years until agency approval and sign-off.



San Clemente Canyon Mitigation Project site



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San Clemente Canyon
Mitigation Project
Vicinity Map

Figure 6

Rancho Mission Canyon Wetland Enhancement Project

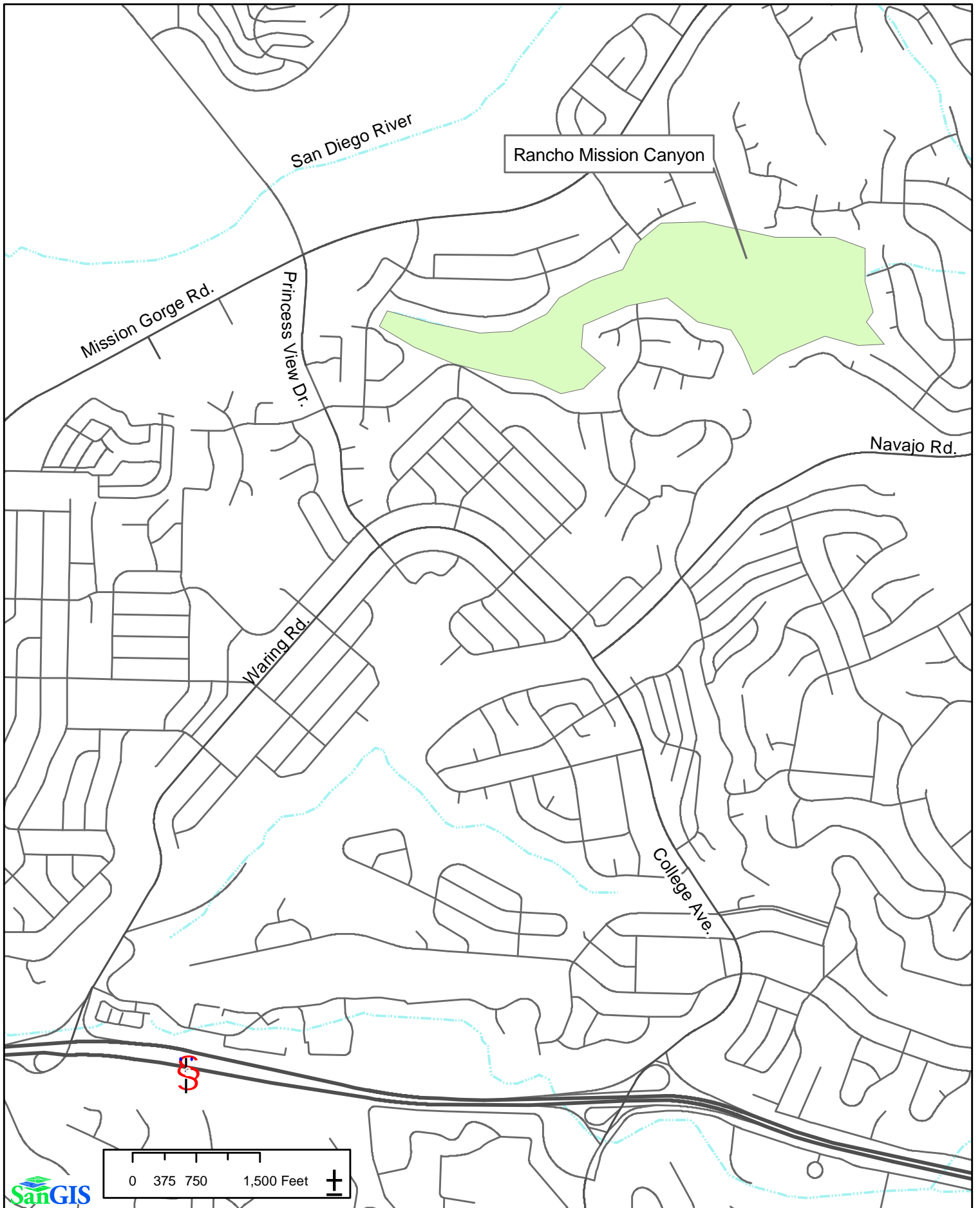
The Rancho Mission Canyon Wetland Enhancement Project is located in the City's Rancho Mission Canyon Open Space Park, south of Mission Gorge Road, north of Navajo Road, and on either side of Margerum Way in the Allied Gardens Community of the Navajo Community Planning Area (Figure 7).

The Rancho Mission Mitigation Project has been constructed to provide 7.59-acres of wetland enhancement credits and 1.53 acre of wetland transitional credits. Approximately 9.12 acres of non-native vegetation was removed, followed by revegetation with native southern willow scrub and transitional species. An additional 4.5 acres is being maintained weed free, but is not planted. The total area of habitat enhancement runs the entire canyon bottom and encompasses more than 13.5 acres. Exotic species targeted for eradication include: salt cedar (*Tamarix* sp.), myoporum (*Myoporum laetum*), giant reed (*Arundo donax*), Brazilian pepper (*Schinus terebinthifolius*), pampas grass (*Cortaderia selloana*), Mexican fan palm (*Washingtonia robusta*), and eucalyptus (*Eucalyptus* spp.).

The site is currently in year 4 of the long-term maintenance and monitoring period. Year 3 annual quantitative monitoring documented high species diversity and native vegetative cover percentages of 94.5%. The enhancement site has exceeded year 3, 4, and 5 success criteria for native cover. Irrigation has been shut off to allow the wetland transitional and wetland areas to naturalize and establish. The site will be monitored and maintained for a total of 5 years or until agency approval and sign off.



Rancho Mission Canyon Wetland Enhancement Project



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Rancho Mission Mitigation Project

Vicinity Map

Figure 7

El Rancho Peñasquitos Wetland Enhancement Project

The El Rancho Peñasquitos Wetland Enhancement Mitigation Project includes enhancement of approximately 5.53 acres of southern cottonwood willow riparian forest.

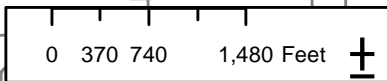
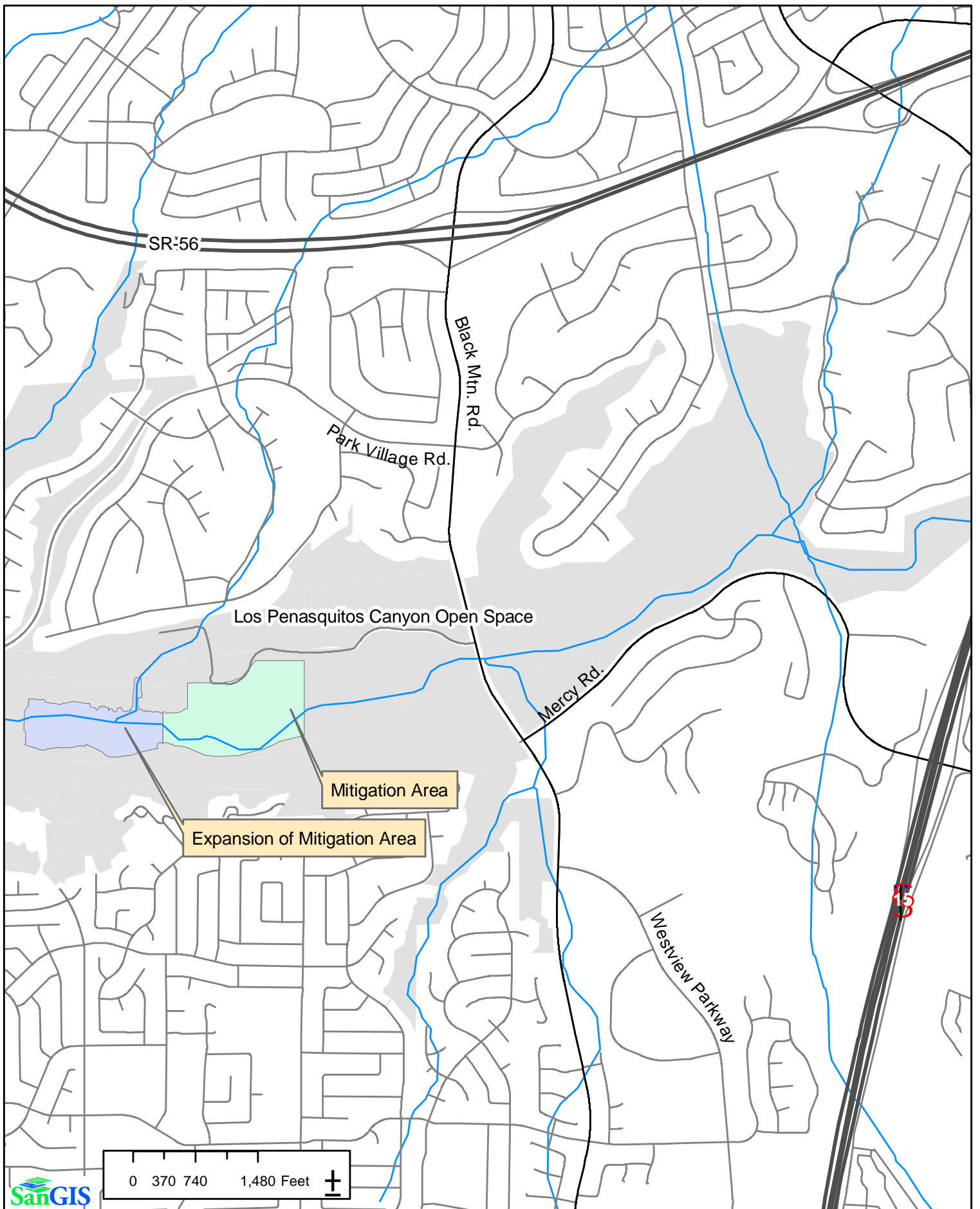
The mitigation site is located along Los Peñasquitos Canyon approximately 0.5 mile west of Black Mountain Road in the vicinity of the historically designated Johnson Taylor Adobe of Rancho de los Peñasquitos (City of San Diego HRB Site #75). The site is within the MHPA on County and City of San Diego Open Space Land (Figure 8).

Non-native plant species that were eradicated during the enhancement effort included Canary Island date palm (*Phoenix canariensis*), Mexican fan palm (*Washingtonia robusta*), Peruvian pepper tree (*Schinus molle*), Brazilian pepper tree (*Shinus terebinthifolius*), eucalyptus (*Eucalyptus* spp.), edible fig (*Ficus carica*), artichoke thistle (*Cynara cardunculus*), and white sapote (*Casimiroa edulis*).

Results from the Final Monitoring Report outline a 100% eradication of target plant species. Treated plants have started to deteriorate and decompose, allowing for the establishment of native species in their direct vicinity. The El Rancho Peñasquitos Wetland Enhancement Project has met the success criteria outlined in the Conceptual Mitigation Plan and received regulatory sign-off in early 2010.



El Rancho Peñasquitos Wetland Enhancement Project site



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**El Rancho Penasquitos Wetland Enhancement Mitigation Project
Vicinity Map**

Figure 8

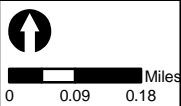
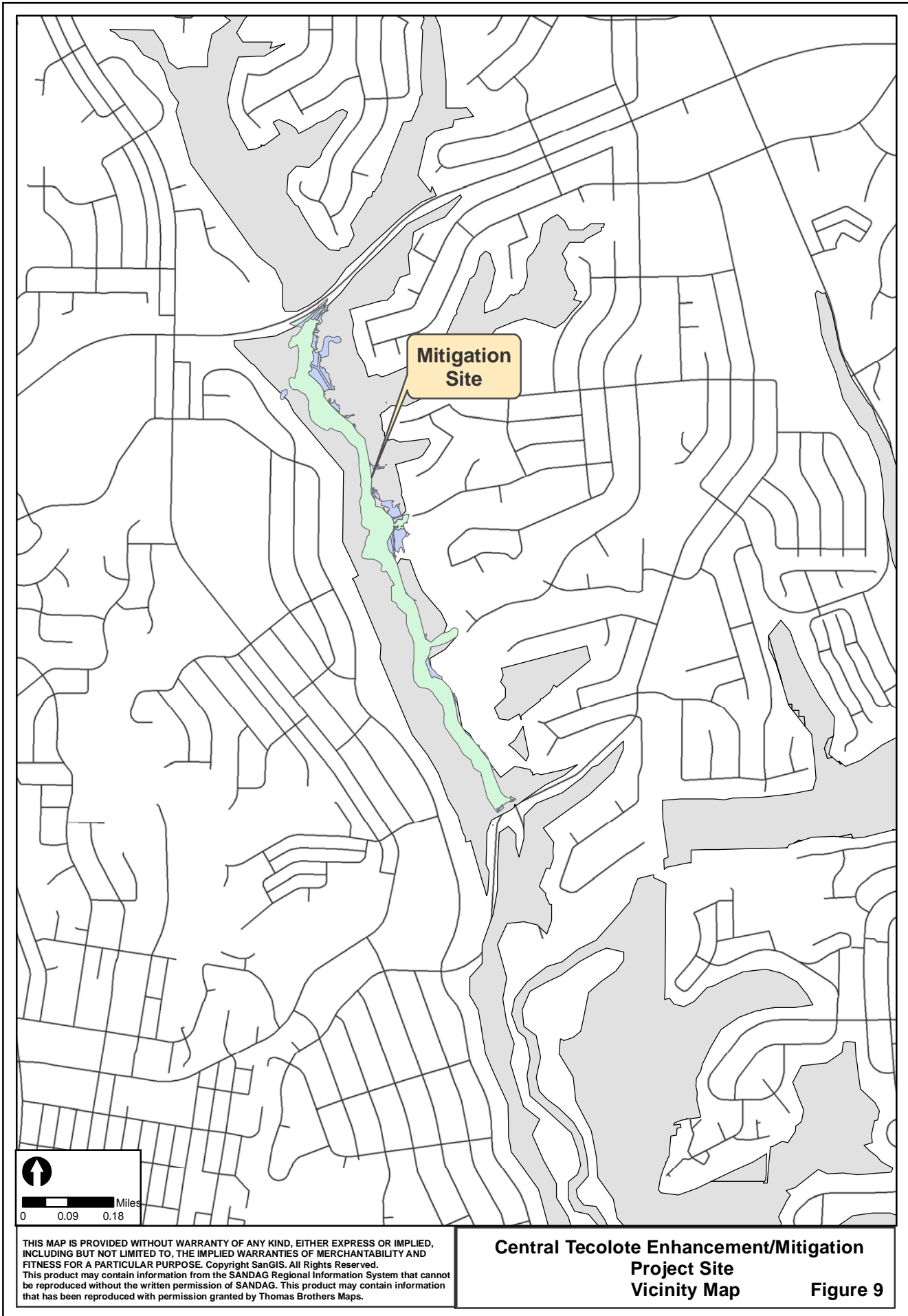
Central Tecolote Enhancement Mitigation Project

Construction began in February 2011 for this project, located south of Balboa Avenue and north of Mt. Acadia Boulevard in Tecolote Canyon (Figure 9). The project consists of approximately 3.5 acres of riparian enhancement and approximately 3.2 acres of native grassland/coastal sage scrub restoration within a 20+ acre weed management area.

Exotic species removed from the site include: Brazilian pepper (*Schinus terebinthifolius*), pampas grass (*Cortaderia selloana*), Mexican fan palm (*Washingtonia robusta*), Canary Island date palm (*Phoenix canariensis*), eucalyptus (*Eucalyptus* spp.), fennel (*Foeniculum vulgare*), mustard (*Brassica* sp.), and yellow sweetclover (*Melilotus indicus*). A temporary above ground irrigation system was installed to support the native plant and seed material to be installed onsite. The 120 day Plant Establishment Period (PEP) began in July 2011. The site will be maintained and monitored for the 120-day PEP period and an additional 5-year period until agency sign off.



Central Tecolote Enhancement Mitigation Project



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**Central Tecolote Enhancement/Mitigation
Project Site
Vicinity Map**

Figure 9

Canyon View Upland Restoration Mitigation Project

A conceptual mitigation plan has been adopted and construction drawings have been prepared for this project, to be located east of Black Mountain Road and south of Adolphia Street in Los Peñasquitos Canyon (Figure 10). The project will consist of approximately 7.7 acres of coastal sage scrub and native grassland restoration within an additional weed buffer management area.

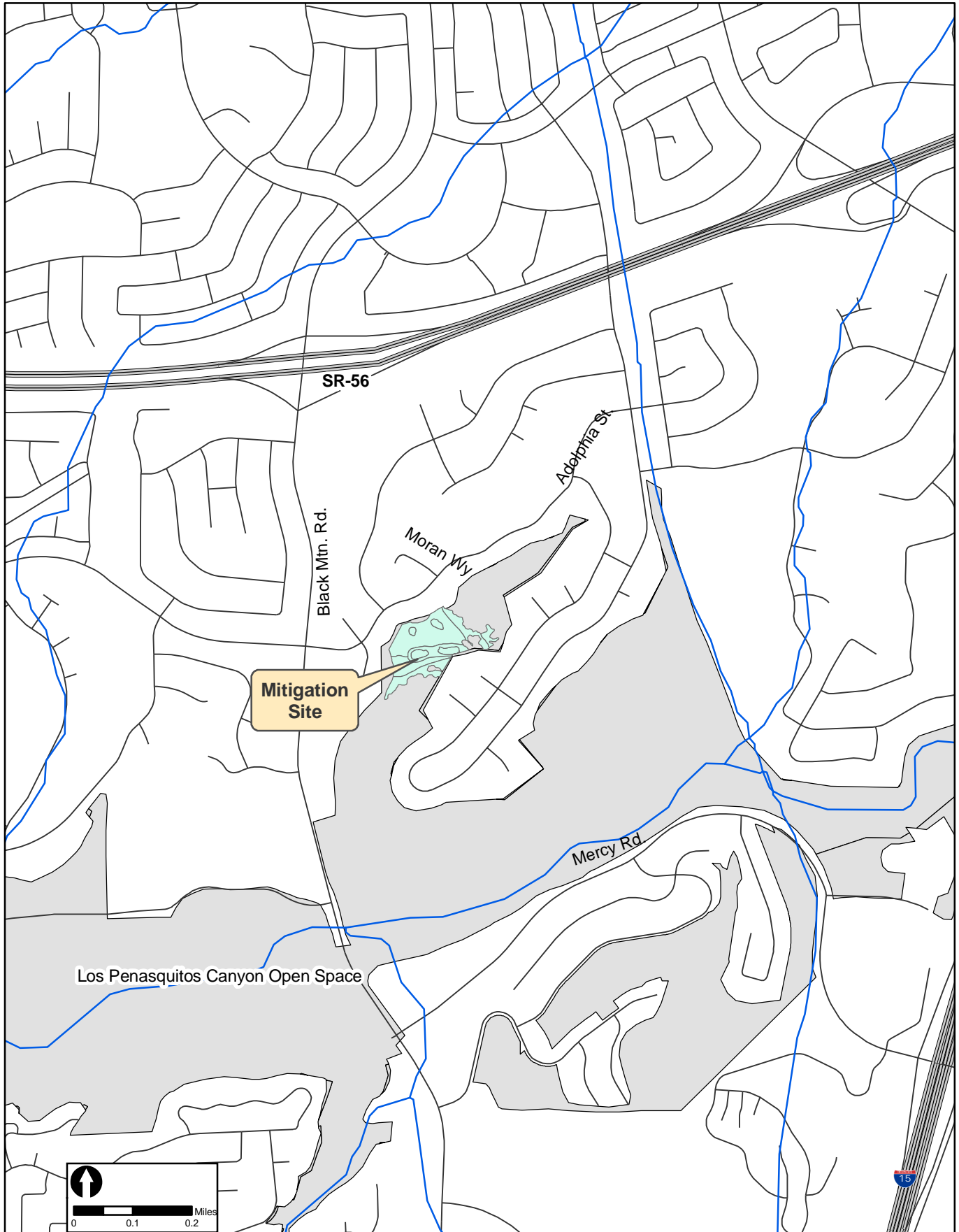
The project area is currently infested with invasive non-native plant species that have little value for wildlife. The site currently supports mustard (*Brassica* sp.), artichoke thistle (*Cynara cardunculus*), tocalote (*Centaurea melitensis*), and many non-native grass species. The goal of the project will be to eradicate all non-native species and establish native upland habitat.

The project will use recycled water for temporary irrigation during the plant establishment phase and through a portion of the 5 year maintenance and monitoring period.

Project implementation is planned for September 2011.



Canyon View Upland Restoration Mitigation Project site



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**Canyon View Upland Restoration Mitigation Project
 Vicinity Map
 Figure 10**

Rancho Bernardo Mitigation Project

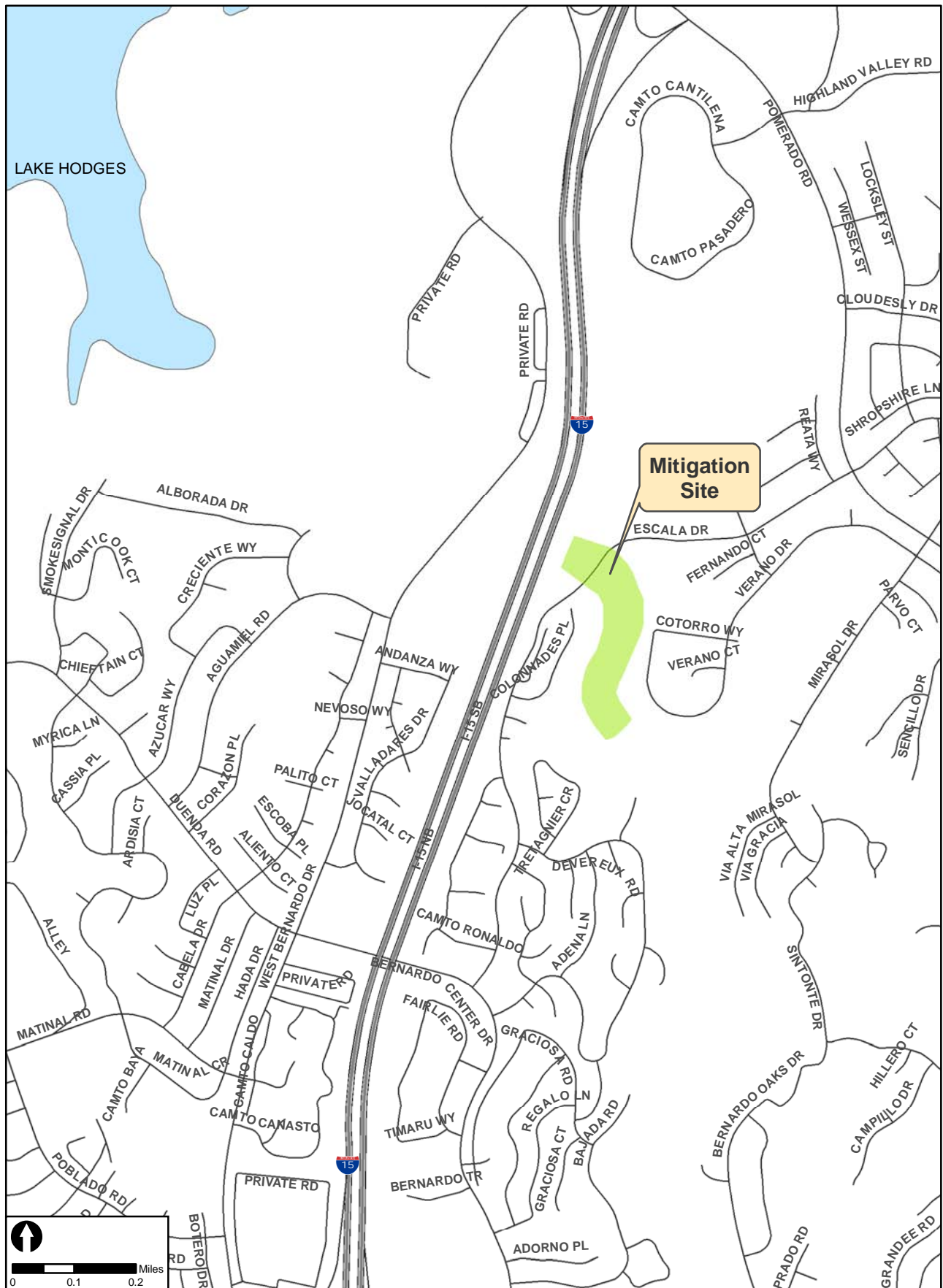
A conceptual design plan is being prepared for this project, to be located east of I-15, west of Cotorro Road and south of Escala Drive in Rancho Bernardo Canyon (Figure 11).

The project area currently supports a large area of invasive non-native plant species that have little value for wildlife. The site currently supports California fan palms (*Washingtonia filifera*), pampas grass (*Cortaderia jubata*), castor bean (*Ricinus communis L.*), and tree tobacco (*Nicotiana glauca*). The goal of the project will be to eradicate non-native species and establish native wetland habitat.

Project implementation is planned for winter 2012.



Rancho Bernardo Mitigation Project Site



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Rancho Bernardo Mitigation Project
Vicinity Map
Figure 11

Black Mountain Wetland Mitigation Project

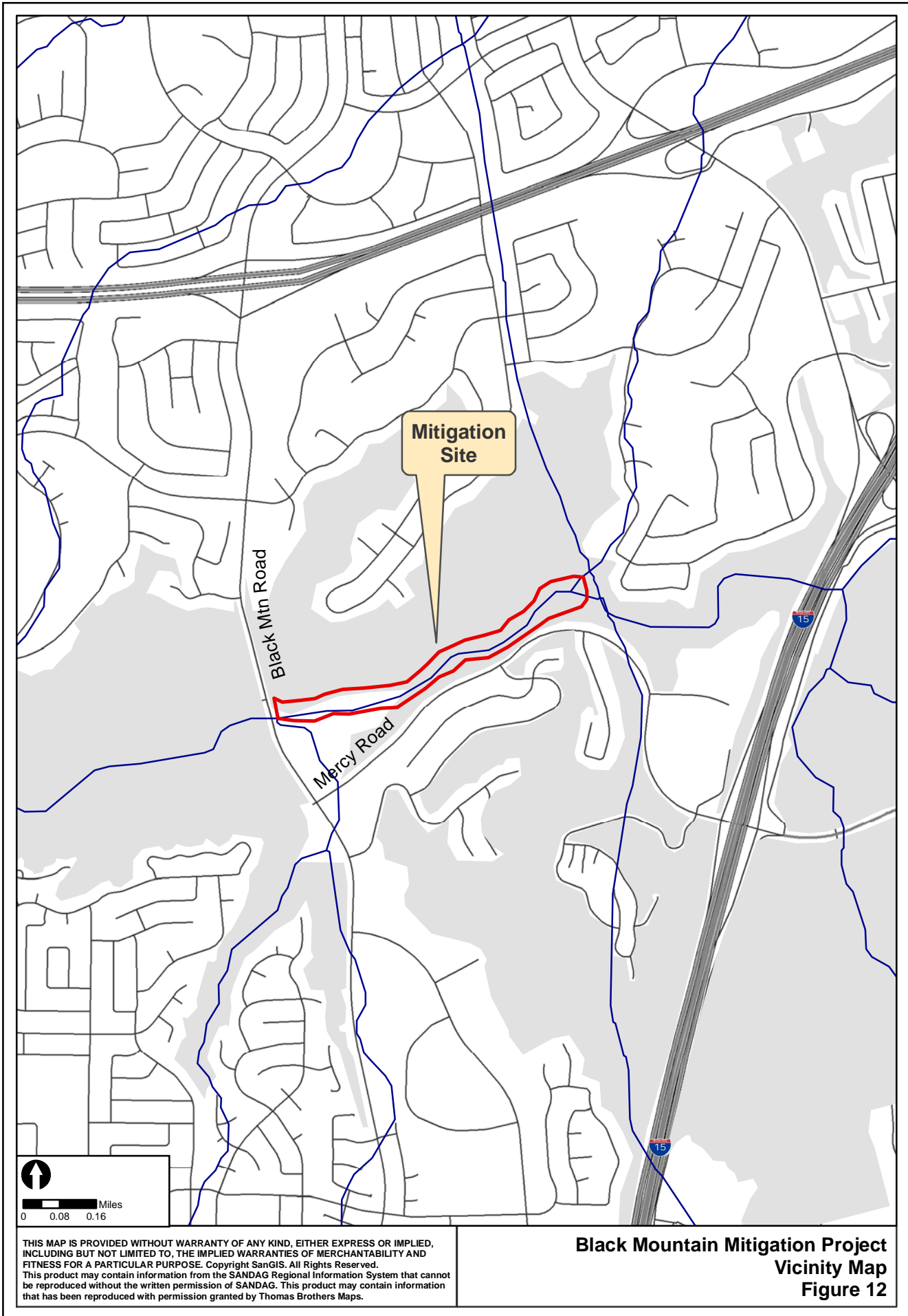
A conceptual plan is being prepared for this project, to be located west of I-15, east of Black Mountain Road, and north of Mercy Road in Penasquitos Canyon (Figure 12).

The project area currently supports a large area of invasive non-native plant species that have little value for wildlife. The site currently supports eucalyptus (*Eucalyptus* spp.), Canary Island date palm (*Phoenix canariensis*), Mexican fan palm (*Washingtonia robusta*), Brazilian pepper tree (*Schinus terebinthifolius*), pampas grass (*Cortaderia selloana*), and tamarisk (*Tamarix parviflora*). The goal of the project will be to eradicate non-native species and establish native wetland habitat.

Project implementation is planned for 2013.



Black Mountain Mitigation Project Site



0 0.08 0.16 Miles

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**Black Mountain Mitigation Project
Vicinity Map
Figure 12**



**Canyon Restoration/Revegetation Projects (2008-2011)
July 2011**



Active Projects							
Canyon/ Project	Reveg or Restoration	Start of 25 Months	Seeding Date	Planting Date	End of 25 Months	PM	Status
San Pasqual Pipe Repair	Erosion Control	4/5/07 A	4/5/07 A	N/A	5/2009	Balo	Erosion issues at stormdrain/waterway.
7 th and Brookes	Reveg/Rest	11/2008	11/2008	N/A	12/2010	Domasco	Additional erosion control and clean up measures being implemented.
Rose	Revegetation	11/2008	11/2008	N/A	12/2010	Balo	Not enough vegetative cover. Will continue maintenance.
Waring Road	Restoration	4/2009	4/2009	N/A	4/2013	Van Every	Ongoing maintenance.
South Juniper (new)	Reveg/Rest	11/2009	11/2009	2/2010	12/2011	Domasco	On target
Tecolote Mh 346	Restoration	9/2009	9/2009	N/A	10/2011	Domasco	On target
PS 30	Restoration	4/20/2010	4/20/2010	4/20/2010	5/20/2012	Van Every	On target
Oklahoma Street	Restoration	5/2010	Fall 2010	5/3/2010	6/2012	Domasco	On target
Lopez MH 102	Restoration	5/2010	Fall 2010	5/2010	6/2012	Domasco	On target
Valetta Street	Revegetation	5/2/2010	5/3/2010	5/3/2010	6/2012	Balo	On target
Rancho Mission Slope Repair	Restoration	6/10/2010	6/10/2010	Fall 2010	7/2012	Balo	On target. Replace straw wattles in Fall 2011
Lake Hodges	Restoration	7/1/2010	7/1/2010	N/A	8/1/2012	Domasco	On target
Menlo and Redwood	Restoration	11/17/2010	6/2010	11/17/2010	12/17/2012	Smith	On target
East Tecolote	Reveg/Rest	11/24/2010	11/24/2010	N/A	12/24/2012	Roeland	On target
Lexington Water Emergency (Water)	Restoration	1/2011	9/2010	1/2011	2/2013	Roeland	On target
Lake Murray (Water)	Restoration	1/2011	1/2011	1/2011	2/2013	Roeland	On target
San Clemente Emergency	Revegetation	1/2011	N/A	N/A	2/2013	Roeland	On target
San Clemente MH 4 Access	Revegetation	2/2011	2/2011	N/A	3/2013	Roeland	On target
Plaza Ridge	Revegetation	1/19/2011	1/19/2011	N/A	2/19/2013	Smith	On target
33 rd and Maple	Revegetation	3/16/2011	3/16/2011	N/A	4/16/2013	Smith	On target
Mission Center Canyon	Restoration	4/29/2011	10/1/2011	N/A	5/29/2013	Roeland	On target. Seed in Fall 2011
Rose Sinkhole	Reveg/Rest	5/23/2011	5/3/2011	5/23/2011	6/23/2013	Balo	On target
Carmel Valley Rd (Water)	Revegetation	5/20/2011	10/1/2011	N/A	6/20/2013	Balo	On target. Seed in Fall 2011
Upas Street	Revegetation	4/21/2011	4/21/2011	N/A	5/21/2013	Smith	On target
Central Tecolote MH 159	Revegetation	5/9/2011	5/9/2011	N/A	6/6/2013	Roeland	On target
Dwane and Elaine	Restoration	6/29/2011	6/29/2011	N/A	7/29/2013	Smith	On target
Admiral Baker	Revegetation	TBD	TBD	N/A	TBD	Balo	Hydroseeding planned July 2011
Hotel Circle South Emergency	Restoration	TBD	TBD	TBD	TBD	Smith	To be implemented post construction

Completed Projects				
Canyon/ Project	Revegetation or Restoration	Project Initiation	Project Completion	PM
Washington Creek	Erosion Control	2/1/2008	4/30/2011	Balo
Switzer	Reveg/Rest	11/2008	4/30/2011	Domasco
Mt Ashmun	Reveg/Restoration	10/2009	4/30/2011	Domasco
Lexington (Jaimes Way)	Reveg/Restoration	1/2009	4/30/2011	Balo
Dakota	Reveg/Rest	9/2008	11/26/2010	Domasco
Miramar TS	Reveg/Rest	10/28/2007	9/26/2010	White
Buchanan/Maryland St	Restoration	1/15/2008	4/22/2010	White
Fairmount and Home	Reveg/Rest	5/31/05	4/22/2010	White
Norfolk	Reveg/Rest	10/19/07	4/22/2010	Balo
Juniper and 28 th	Reveg	2/15/2008	4/22/2010	Balo
Spruce	Reveg	11/2007	5/2009	Balo
Mission Valley	Reveg/Rest	5/20/2005	1/2009	Ball
Mt Elbrus	Reveg/Rest	9/21/2004	5/2009	Ball
Manning	Reveg	10/22/04	1/2009	Domasco
54 th Street	Reveg/Rest	6/27/2006	5/2009	Balo
Alvarado	Reveg/Rest	11/7/2006	5/2009	Balo
Caminito Fuente	Reveg	8/8/06	1/2009	Balo
South Juniper	Reveg/Rest	1/24/2006	5/2009	Domasco
Delevan	Reveg/Rest	3/3/2006	5/2009	Domasco
Felton and Ivy	Restoration	3/21/2007	8/2009	Balo
Escala Drive	Erosion Control	1/2/2008	8/2009	Balo
Polvera Drive	Erosion Control	1/3/2008	8/2009	Balo
Willow St	Reveg	5/2005	8/2009	Smith
Spruce	Erosion Control	11/2007	8/2009	Balo
Buchanan	Reveg	1/18/2005	1/19/08	White
Park Mesa	Reveg/Rest	10/22/04	7/19/2008	Domasco
Tecolote	Reveg	10/22/04	7/19/2008	Domasco
Blk Mtn and Sabre Sprgs	Revegetation	2006	7/19/08	Ball
Upper Juniper	Restoration	2005	7/19/08	Balo
Biltmore and Mh 110	Reveg/Rest	2006	7/19/08	Ball

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September 29, 2011

SDS-10.15

Ms. Keli Balo
Environmental Biologist
Engineering and Program Management
Public Utilities Department
City of San Diego
9192 Topaz Way, MS 901A
San Diego, CA 92123

Subject: Time Zero Report for the Central Tecolote Canyon Mitigation Project

Dear Ms. Balo:

This letter addresses the completed installation of the Central Tecolote Canyon Mitigation project, which mitigates for past and future impacts to upland and wetland habitat within Tecolote Canyon Natural Park associated with the maintenance of an existing sewer line and related access paths, as well as with the construction of the East Tecolote Pipe Protection Project.

MITIGATION LOCATION

The Central Tecolote Canyon Mitigation Project is located within Tecolote Canyon Natural Park (Park), an open space area located within a narrow coastal canyon, 0.5 mile to the east of Interstate 5 and 0.8 mile to the east of the Pacific Ocean, in the City of San Diego, California (Figures 1 and 2; Latitude/Longitude 117°11'37.597W/32°48'21.809N). It is traversed by a roughly north to south flowing perennial stream (Tecolote Creek). Generally, the lower elevations of the canyon are characterized by mature riparian vegetation, while the slopes are vegetated by chaparral and coastal sage scrub. The canyon is surrounded by residential development and is bisected by several major roadways including Balboa Avenue, Mount Acadia Boulevard, Snead Avenue, and Boyd Avenue.

Specifically, mitigation is located within the Park between Balboa Avenue and Mount Acadia Boulevard, on land owned by the City (Figure 3) and managed by the Park and Recreation

Department. The majority of the mitigation area is within the boundaries of the City of San Diego (City)'s Multi-Habitat Planning Area.

REQUIRED MITIGATION

The Corps, CDFG, RWQCB, and City require mitigation for impacts to sensitive wetlands and/or upland habitats. Past and future impacts related to sewer line maintenance and construction will require at least 1.6 acres of wetland and 1.3 acres of upland restoration and enhancement. Additional mitigation may be necessary as a result of future emergency projects or unanticipated maintenance and construction.

AS-BUILT CONDITIONS

To meet mitigation requirements, mitigation was implemented per the Contract Drawings for the Central Tecolote Canyon Mitigation Project (HELIX, 2010a and b), with only minor modifications to mitigation boundaries where site conditions required. To allow for future impacts, mitigation was in excess of that required by the resource agencies (Table 1).

**Table 1
MITIGATION CREDITS FOR THE
CENTRAL TECOLOTE CANYON MITIGATION PROJECT¹**

MITIGATION TYPE	TOTAL MITIGATION	MITIGATION CREDIT BY RESOURCE AGENCY		
		City	CDFG	Corps/RWQCB
Diegan coastal sage scrub restoration	1.69	1.69		
Native Grassland restoration	1.36	1.36		
Upland Subtotal	3.05	3.05		
Southern riparian forest enhancement	2.44	2.44	2.44	
Tecolote Creek riparian enhancement	0.95	0.95	0.95	0.95
Wetland Subtotal	3.39	3.39	3.39	0.95
Total Restoration/Enhancement	6.44	6.44	3.39	0.95
Weed Management Area ²	4.50	4.50	4.50	0.61 ³
TOTAL MITIGATION CREDIT	10.94	10.94	7.89	1.56

¹ All mitigation outlined in this table occurs outside of sewer and power line easements.

² 25 percent of the total 18.02-acre Weed Management Area (excluding all utility easements and the 0.25 acre for existing tree of heaven removal located at the south end of the project).

³ 25 percent of an approximately 20-foot wide Corps jurisdictional area occurring along the entire length of the main channel (2.44 acres).

Mitigation installation was initiated in January 2011; during that time, the boundaries of the restoration/enhancement areas were staked by Habitat West, in coordination with a biologist from HELIX Environmental Planning, Inc. (HELIX). Palm tree removal, conducted by

Blackhawk Helicopter and California Tree, was conducted in February and March 2011. All other initial weed removal within all restoration/enhancement areas, as well as the Weed Management Area (WMA) was conducted by Habitat West in February 2011. Irrigation was installed and, to help remove the existing seed bank of non-native plants, several grow/kill cycles were completed for all of the irrigated areas prior to planting. Container plants were installed starting in late June 2011, per the original specifications (Tables 2 through 4) with the following exceptions: (1) only 19 of the specified 68 purple nightshade (*Solanum xanthii*) were available; therefore, it was agreed that that remaining number (49) would be replaced with bladderpod (*Isomeris arborea*), a species which is present on site, (2) most needlegrass (*Nassella* spp.) and creeping wild rye (*Leymus triticoides*) were installed with caging to protect delicate shoots against herbivory by rabbits, and (3) basket bush (*Rhus trilobata*) will be installed in September 2011, after container plantings have grown larger at the nursery.

To facilitate a more natural timing of seed germination, it was determined that seed would not be installed until just prior to the start of the next rainy season (by October 1, 2011); in addition, in order to procure them during the dormant period, cuttings of willow (*Salix* spp.) and mule fat (*Baccharis salicifolia*) would not be collected and installed within the riparian enhancement areas until winter 2012. However, given that all major aspects of the mitigation effort were executed/installed, the 120-day installation period was initiated on July 28, 2011, following a site inspection by the City and HELIX.

Table 2
DIEGAN COASTAL SAGE SCRUB PLANT PALETTE
(1.80 acres)

Scientific Name	Common Name	Number Per Acre	Container Size	Spacing on Center (feet)	Total Number
<i>Artemisia californica</i>	California sagebrush	200	1-gallon	5	334
<i>Eriogonum fasciculatum</i>	California buckwheat	200	1-gallon	5	334
<i>Malosma laurina</i>	laurel sumac	40	1-gallon	10	72
<i>Mimulus aurantiacus</i>	monkeyflower	300	1-gallon	3	501
<i>Opuntia littoralis</i>	coastal prickly pear	25	1-gallon	5	42
<i>Opuntia prolifera</i>	coastal cholla	25	1-gallon	5	42
<i>Rhus integrifolia</i>	lemonadeberry	40	1-gallon	10	72
<i>Salvia mellifera</i>	black sage	200	1-gallon	5	334
<i>Viguiera laciniata</i>	San Diego sunflower	200	1-gallon	5	334
<i>Yucca whipplei</i>	Our Lord's candle	50	1-gallon	5	90
TOTAL					2,155

Table 3 NATIVE GRASSLAND PLANT PALETTE (1.37 acres)					
Scientific Name	Common Name	Number/ Acre	Container Size	Spacing On Center (feet)	Total Number
<i>Isomeris arborea</i>	bladderpod	36	1-gallon	5	49
<i>Mimulus aurantiacus</i>	monkeyflower	50	1-gallon	3	68
<i>Nassella lepida</i>	foothill needlegrass	750	plugs	2	1,027
<i>Nassella pulchra</i>	purple needlegrass	750	plugs	2	1,027
<i>Rhus trilobata</i>	basket bush	50	1-gallon	5	68
<i>Solanum xantii</i>	purple nightshade	14	1-gallon	3	19
<i>Viguiera laciniata</i>	San Diego sunflower	50	1-gallon	5	68
<i>Yucca whipplei</i>	Our Lord's candle	50	1-gallon	5	68
TOTAL					2,394

Table 4 SOUTHERN RIPARIAN FOREST PLANT PALETTE (2.52 acres)					
Scientific Name	Common Name	Number Per Acre	Container Size	Spacing On Center (feet)	Total Number
<i>Artemisia palmeri</i>	San Diego sagewort	100	1-gallon	6	252
<i>Distichlis spicata</i>	saltgrass	500	plugs	6	1,260
<i>Leymus triticoides</i>	creeping wild rye	500	plugs	6	1,260
<i>Isocoma menziesii</i>	goldenbush	60	1-gallon	6	151
<i>Malosma laurina</i>	laurel sumac	60	1-gallon	15	151
<i>Rhus trilobata</i>	basket bush	60	1-gallon	6	151
<i>Sambucus mexicana</i>	blue elderberry	60	1-gallon	15	151
<i>Quercus agrifolia</i>	coast live oak	100	1-gallon	15	252
TOTAL					3,628

Representative photos of the mitigation areas before and after restoration/enhancement installation are provided in Appendix A.

START OF THE FIVE-YEAR MONITORING PERIOD

If all requirements are met on schedule, the 120-day establishment period will end on November 28, 2011 and the 5-year maintenance and monitoring period will be initiated on that date. A brief letter addressing the completion of the establishment period and start of the 5-year maintenance/monitoring will be prepared by HELIX to document the official start of this phase of the mitigation effort.

Regularly scheduled maintenance and monitoring will be conducted during the 120-day establishment period, as well as the 5-year monitoring period, as specified in the Final Conceptual Habitat Restoration Plan (HELIX 2008). Annual technical monitoring to evaluate restoration success will be scheduled in May, at the end of the growing season for most native vegetation within the restoration/enhancement areas. As a result of the off-set timing of the annual assessment (May) and the end of each year of monitoring (the following November), a monitoring memo will be prepared following the assessment and all other data collected will be presented in the annual report, which will not be prepared until after the end of each year of monitoring. Annual reports will include assessments of cover (native and non-native), observations of plant recruitment, lists of wildlife and plant species observed on site, photographic documentation, a discussion of the progress of the restoration effort towards meeting final success criteria, and remedial recommendations, if necessary. In Years 1 and 2, monitoring will only be qualitative and be based on a visual survey of all mitigation areas. In Years 3 through 5, quantitative transect monitoring will be conducted in the 3 restored and enhanced habitats, while the Tecolote Creek riparian enhancement areas and Weed Management Area will continue to be monitored qualitatively. Annual reports will be submitted to Corps, RWQCB, CDFG, and City (Public Utilities Department, Park and Recreation Department, and Development Services Department Mitigation Monitoring Coordination Section) for the duration of the maintenance period.

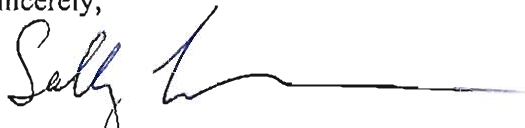
NOTIFICATION OF COMPLETION

The City of San Diego Public Utilities Department, the responsible party, shall notify the Corps, RWQCB, and CDFG of completion of the mitigation effort through submittal of a Year 5 monitoring report. The agencies will determine final acceptance of the mitigation site. If the success criteria are not being met on site, these agencies will work with the City towards a mutually acceptable alternative solution.

CLOSING

Please contact me if you have any questions regarding the initiation of the 120-day establishment period of this restoration/enhancement effort.

Sincerely,



Sally Trnka
Senior Scientist

Enclosures:

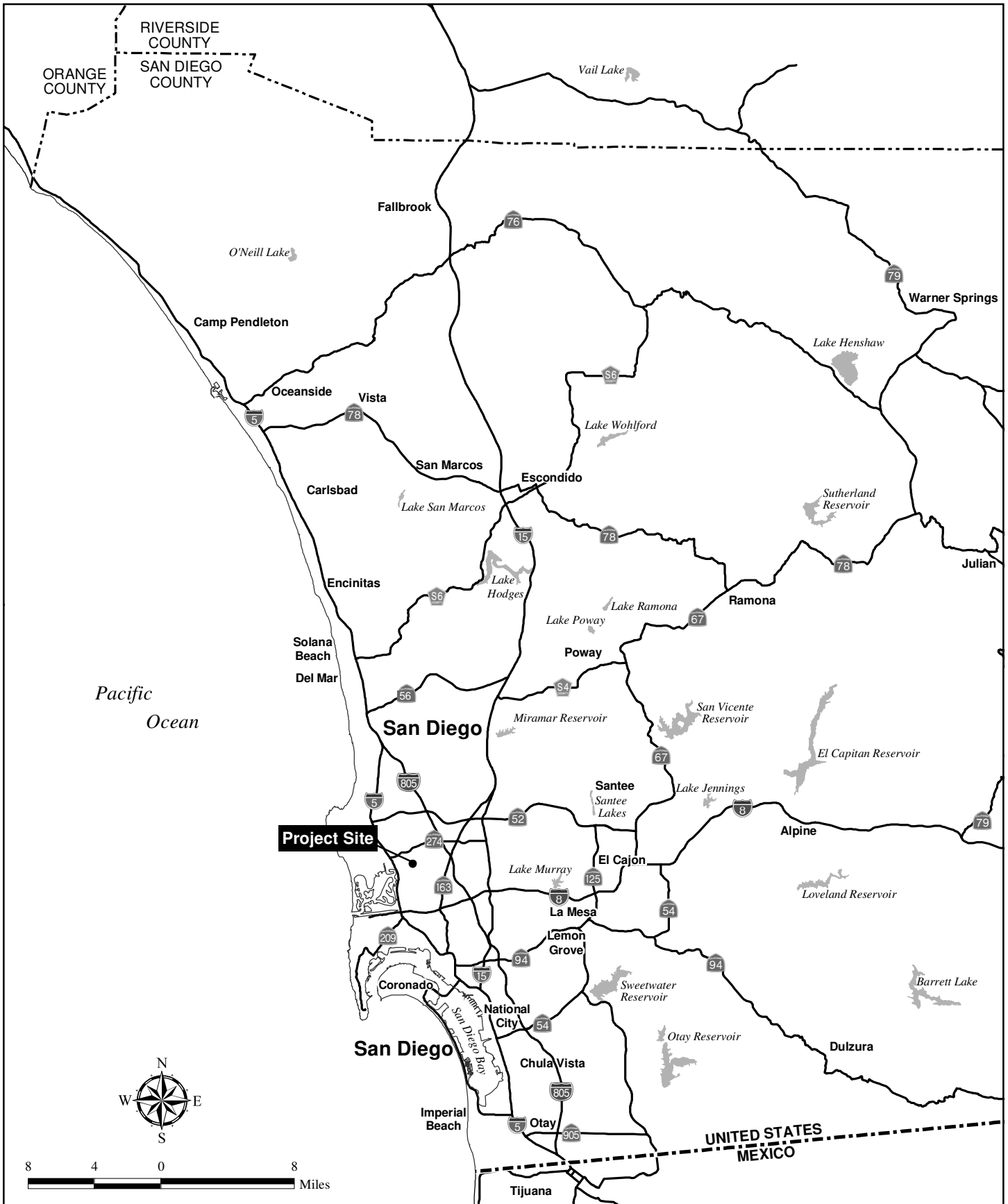
- Figure 1 Regional Location Map
 - 2 Project Location Map
 - 3 Photo Documentation and Transect Locations
- Appendix A Representative Site Photos

REFERENCES

HELIX Environmental Planning, Inc. (HELIX). 2008. Final Conceptual Habitat Restoration Plan for the Central Tecolote Enhancement/Mitigation Project. December 23.

2010a. Contract Drawings for Central Tecolote Canyon Mitigation Project, City of San Diego for Public Utilities Department. January 25.

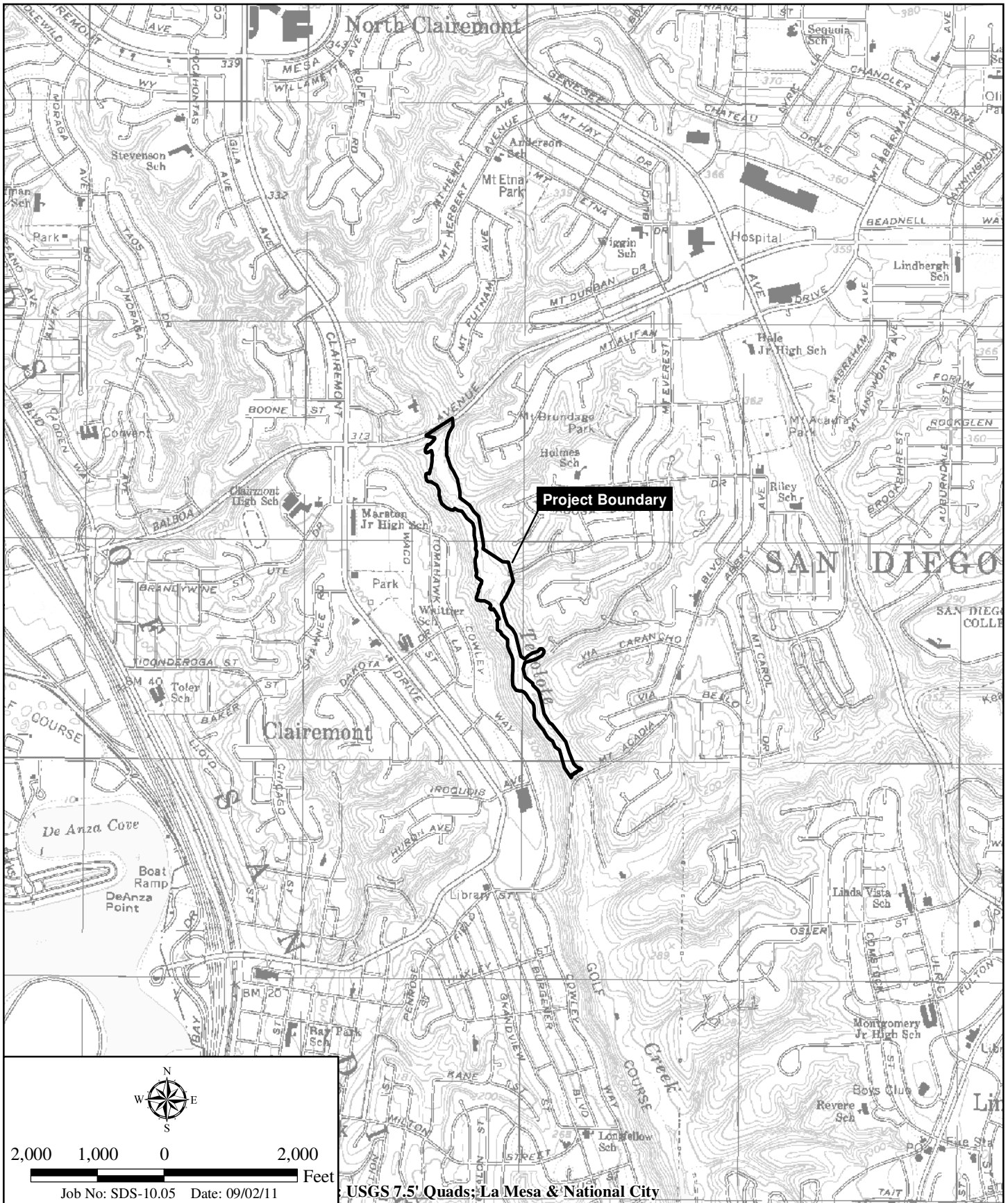
2010b. Mitigation Credit Clarification for the Central Tecolote Canyon Enhancement/Mitigation Project. June 9.



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Regional Location Map

CENTRAL TECOLOTE CANYON MITIGATION PROJECT



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Project Location Map

CENTRAL TECOLOTE CANYON MITIGATION PROJECT

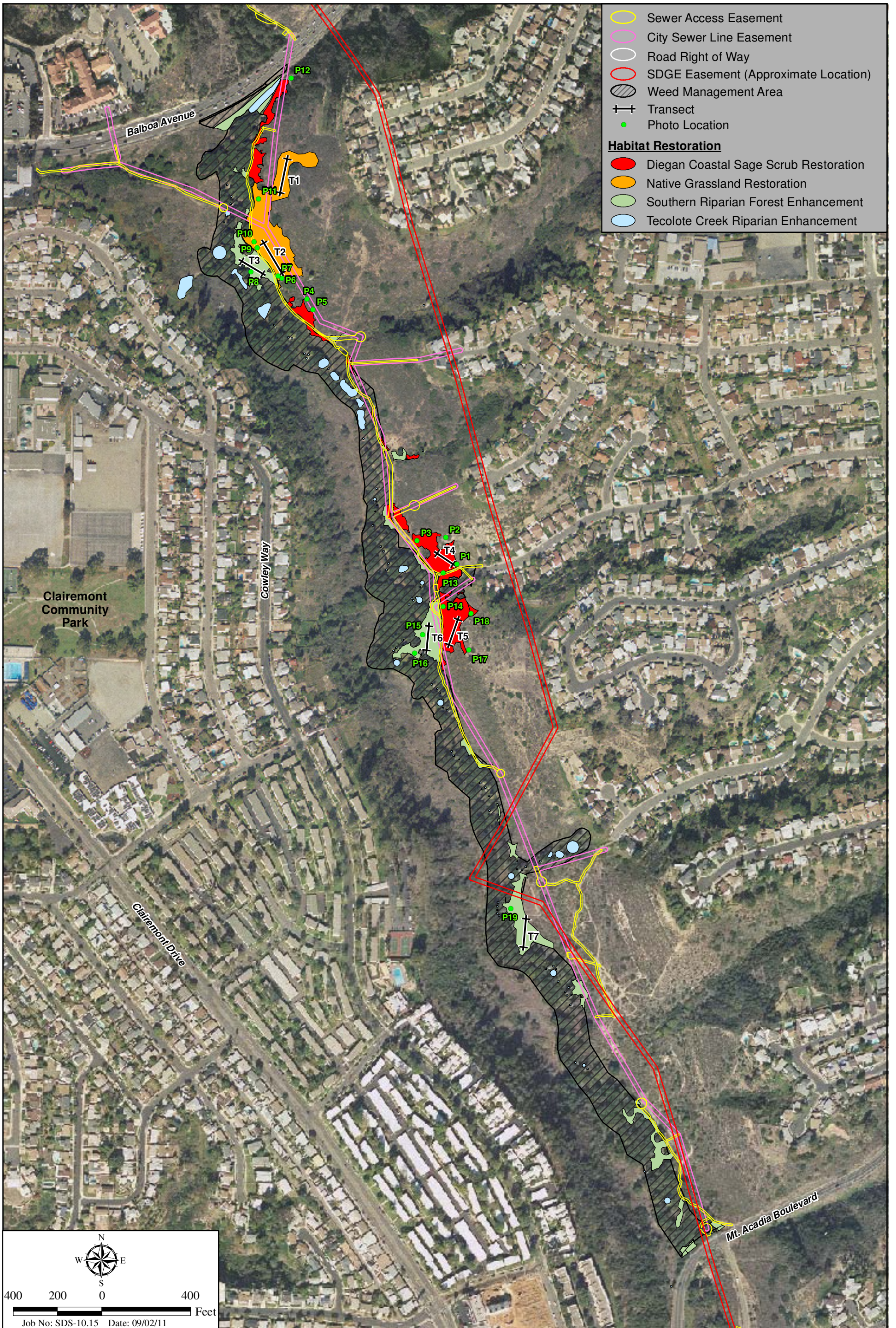


Photo Documentation and Transect Locations

CENTRAL TECOLOTE CANYON MITIGATION PROJECT



Pre-restoration/Enhancement, 12/30/10
Photo Location 1; Diegan coastal sage scrub restoration.



Post-installation, 09/01/11
Photo Location 1; Diegan coastal sage scrub restoration.



Pre-restoration/Enhancement, 12/30/10
Photo Location 2; Diegan coastal sage scrub restoration.



Post-installation, 09/01/11
Photo Location 2; Diegan coastal sage scrub restoration.

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Representative Site Photos
CENTRAL TECOLOTE CANYON MITIGATION PROJECT
Appendix A



Pre-restoration/Enhancement, 12/30/10
Photo Location 3; Diegan coastal sage scrub restoration.



Post-installation, 09/01/11
Photo Location 3; Diegan coastal sage scrub restoration.

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Representative Site Photos
CENTRAL TECOLOTE CANYON MITIGATION PROJECT
Appendix A



Pre-restoration/Enhancement, 12/30/10
Photo Location 4; Diegan coastal sage scrub restoration.



Post-installation, 09/01/11
Photo Location 4; Diegan coastal sage scrub restoration.



Pre-restoration/Enhancement, 12/30/10
Photo Location 5; Diegan coastal sage scrub restoration.



Post-installation, 09/01/11
Photo Location 5; Diegan coastal sage scrub restoration.

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Pre-restoration/Enhancement, 12/30/10
Photo Location 6; Native grassland restoration.



Post-installation, 09/01/11
Photo Location 6; Native grassland restoration.

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Pre-restoration/Enhancement, 12/30/10
Photo Location 7; Southern riparian forest enhancement.



Post-installation, 09/01/11
Photo Location 7; Southern riparian forest enhancement.

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Pre-restoration/Enhancement, 12/30/10
Photo Location 8; Southern riparian forest enhancement.



Post-installation, 09/01/11
Photo Location 8; Southern riparian forest enhancement.

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Pre-restoration/Enhancement, 12/30/10
Photo Location 9; Southern riparian forest enhancement.



Post-installation, 09/01/11
Photo Location 9; Southern riparian forest enhancement.

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Pre-restoration/Enhancement, 12/30/10
Photo Location 10; Native grassland restoration.



Post-installation, 09/01/11
Photo Location 10; Native grassland restoration.



Pre-restoration/Enhancement, 12/30/10
Photo Location 11; Native grassland restoration.



Post-installation, 09/01/11
Photo Location 11; Native grassland restoration.

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Representative Site Photos
CENTRAL TECOLOTE CANYON MITIGATION PROJECT
Appendix A



Pre-restoration/Enhancement, 12/30/10
Photo Location 12; Diegan coastal sage scrub restoration.



Post-installation, 09/01/11
Photo Location 12; Diegan coastal sage scrub restoration.



Pre-restoration/Enhancement, 12/30/10
Photo Location 13; Diegan coastal sage scrub restoration.



Post-installation, 09/01/11
Photo Location 13; Diegan coastal sage scrub restoration.

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Pre-restoration/Enhancement, 12/30/10
Photo Location 14; Southern riparian forest enhancement.



Post-installation, 09/01/11
Photo Location 14; Southern riparian forest enhancement.

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Representative Site Photos

Photo Location 14; Southern riparian forest enhancement. CENTRAL TEXAS COLOTE CANYON MITIGATION PROJECT

Appendix A



Pre-restoration/Enhancement, 12/30/10
Photo Location 15; Southern riparian forest enhancement.



Post-installation, 09/01/11
Photo Location 15; Southern riparian forest enhancement.



Pre-restoration/Enhancement, 12/30/10
Photo Location 16; Southern riparian forest enhancement.



Post-installation, 09/01/11
Photo Location 16; Southern riparian forest enhancement.



Pre-restoration/Enhancement, 12/30/10
Photo Location 17; Diegan coastal sage scrub restoration.



Post-installation, 09/01/11
Photo Location 17; Diegan coastal sage scrub restoration.



Pre-restoration/Enhancement, 12/30/10
Photo Location 18; Diegan coastal sage scrub restoration.



Post-installation, 09/01/11
Photo Location 18; Diegan coastal sage scrub restoration.



Pre-restoration/Enhancement, 12/30/10
Photo Location 19; Southern riparian forest enhancement.



Post-installation, 09/01/11
Photo Location 19; Southern riparian forest enhancement.

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Representative Site Photos
CENTRAL TECOLOTE CANYON MITIGATION PROJECT
Appendix A

Summary of Marron Valley Cornerstone Mitigation Bank Debits: 1997-2011

Land Manager: City of San Diego Public Utilities Department

Purchaser/Project		Transaction Date	Credits	
			Amount Debited	Balance
		7/16/1997	---	1000
1	Southeast Economic Development Corp. / Imperial Market Place	3/21/2000	15.87	984.13
2	Water Department / Miramar Water Distribution Systems Improvements	4/30/2001	0.12	984.01
3	Water Department / Miramar Water Distribution	6/25/2001	0.45	983.56
4	Water Department / Otay Water Treatment Plant	12/5/2001	5.63	977.93
5	Water Department / Rancho Bernardo Pipeline No 2; Black Mountain Ranch Reclaimed Waterline	3/26/2002	0.13	977.80
6	Water Department / Miramar Water Treatment Plant Upgrade	10/21/2002	2.78	975.02
7	Water Department / North City Water Reclamation Plant	2/13/2003	0.54	974.48
8	Santaluz / Segment 4A and Pressure Reducing Station	7/18/2003	1.0	973.48
9	Engineering & Capital Projects / Serra Mesa and Kearny Mesa Libraries	9/30/2003	0.06	973.42
10	Metropolitan Wastewater Department / (Four Projects) Tecolote Canyon Trunk Sewer ; Mt. Elbrus; Manning Sewer Repair; East Clairemont - East Tecolote Sewer Repair	3/15/2004	1.56	971.86
11	TRC / Kinder Morgan Energy Partners; Marine Corps Air Station Miramar Energy Fuel Tank	8/13/2007	3.0	963.86
12	All Right Storage / Otay Mesa Storage Facility	12/06/2007	1.0	967.86
13	Metropolitan Wastewater Department / Dakota Canyon Sewer	1/30/2008	0.39	967.47
14	Metropolitan Wastewater Department / (Four Projects) I-805; Norfolk Canyon; Rancho Bernardo Canyon; 60 th St. Emergency Repairs	3/25/2008	1.595	965.375
15	Metropolitan Wastewater Department / Hwy. 163 North Canyon	5/29/2008	4.0	961.375
16	Sun Edison / Photovoltaic System Project at Otay Treatment Facility	10/20/2009	2.25	959.525
17	Insurance Auto Auction / Britannia 40 Otay SDP - Project No. 147108	11/16/2009	19.6	940.025
18	San Ysidro School District / Vista Del Mar Elementary School	3/1/2011	2.1	937.925
19	Park & Recreation Department / Old El Camino Real to Gonzalez Canyon Trail Connection	9/09/2011	0.29	937.635
20	Public Utilities Department / Los Penasquitos Recycled Water Pipeline	9/30/2011	0.8	936.835
TOTAL TO DATE			63.165	936.835
Revenue from Mitigation Credits Sold in 2011 <i>(See Rows 18, 19, and 20 above)</i>			\$75,295.00	
Estimated Interest Earned 2011			\$11,974.43	
Marron Valley Cornerstone Mitigation Bank Fund Balance 12/31/11 <i>This total includes the Endowment and monies collected for the land purchase</i>			\$1,027,884.11	