



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.

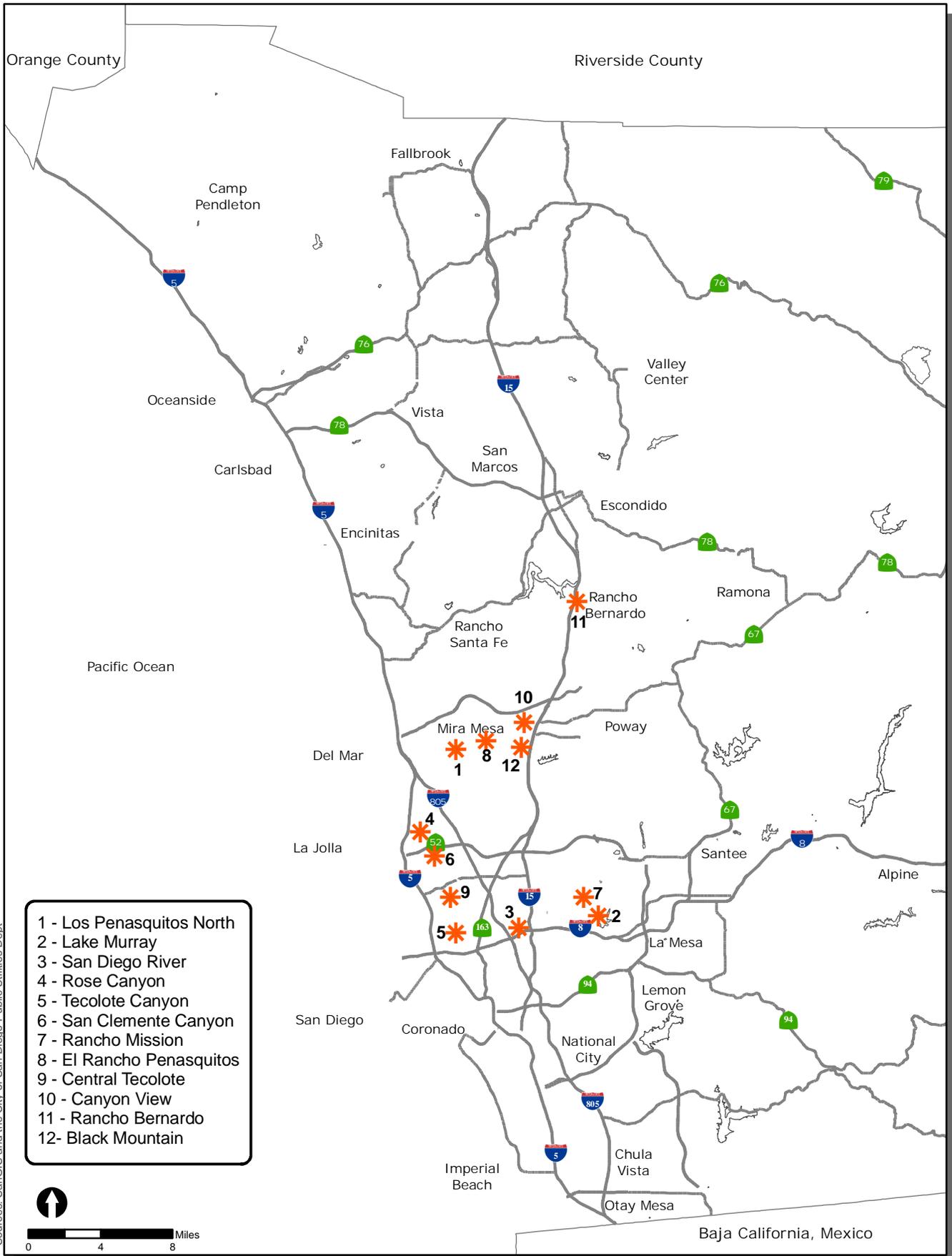
Updates of the status of the restoration/revegetation projects are a regular agenda item at OSCAC's meetings. See Attachment A for the July 2011 update.



Oklahoma Street Revegetation Project

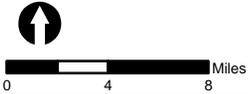
MITIGATION STATUS

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 **FIGURE**
Overview Map **A**

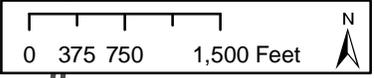
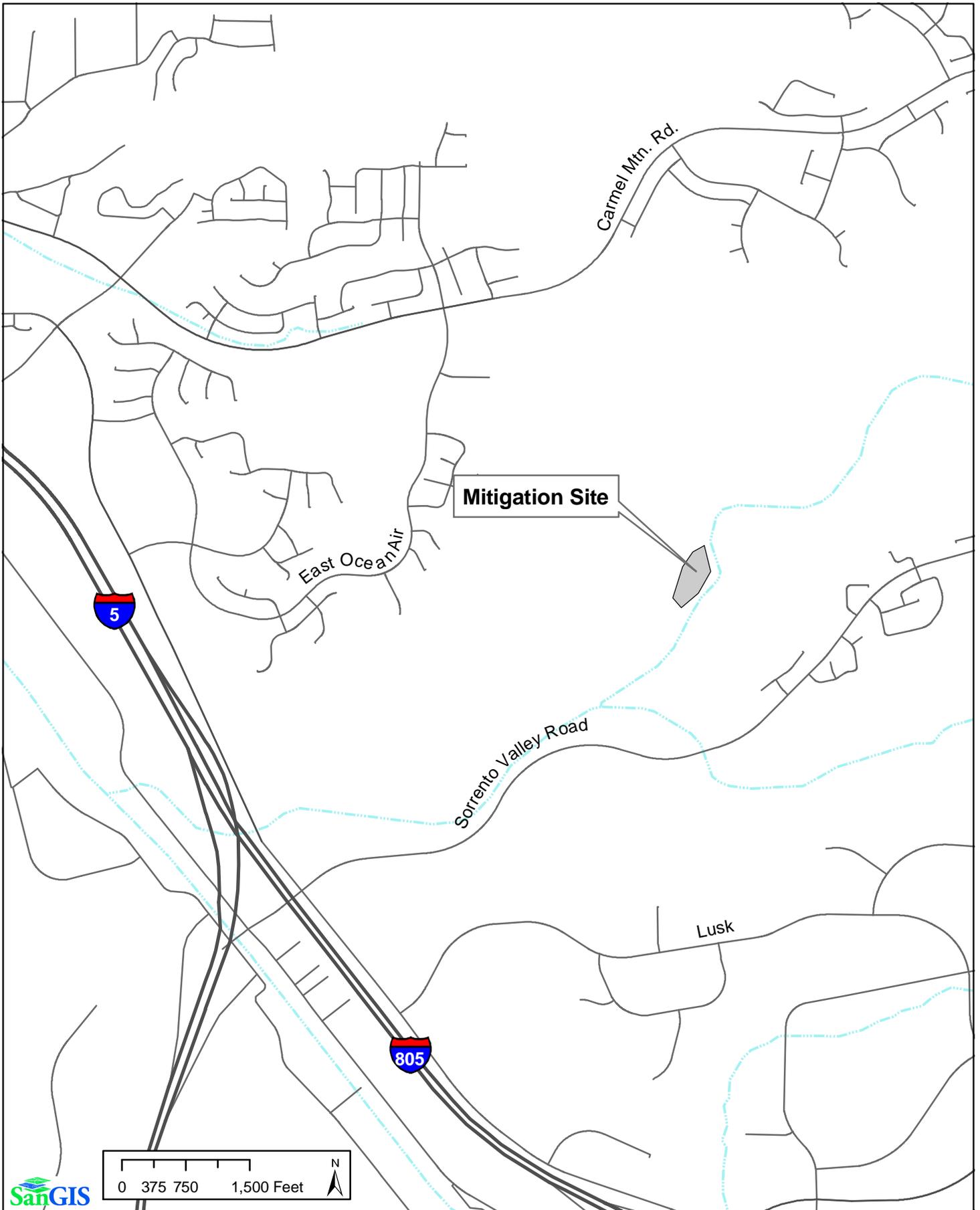
Los Peñasquitos North Wetland Creation Project

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

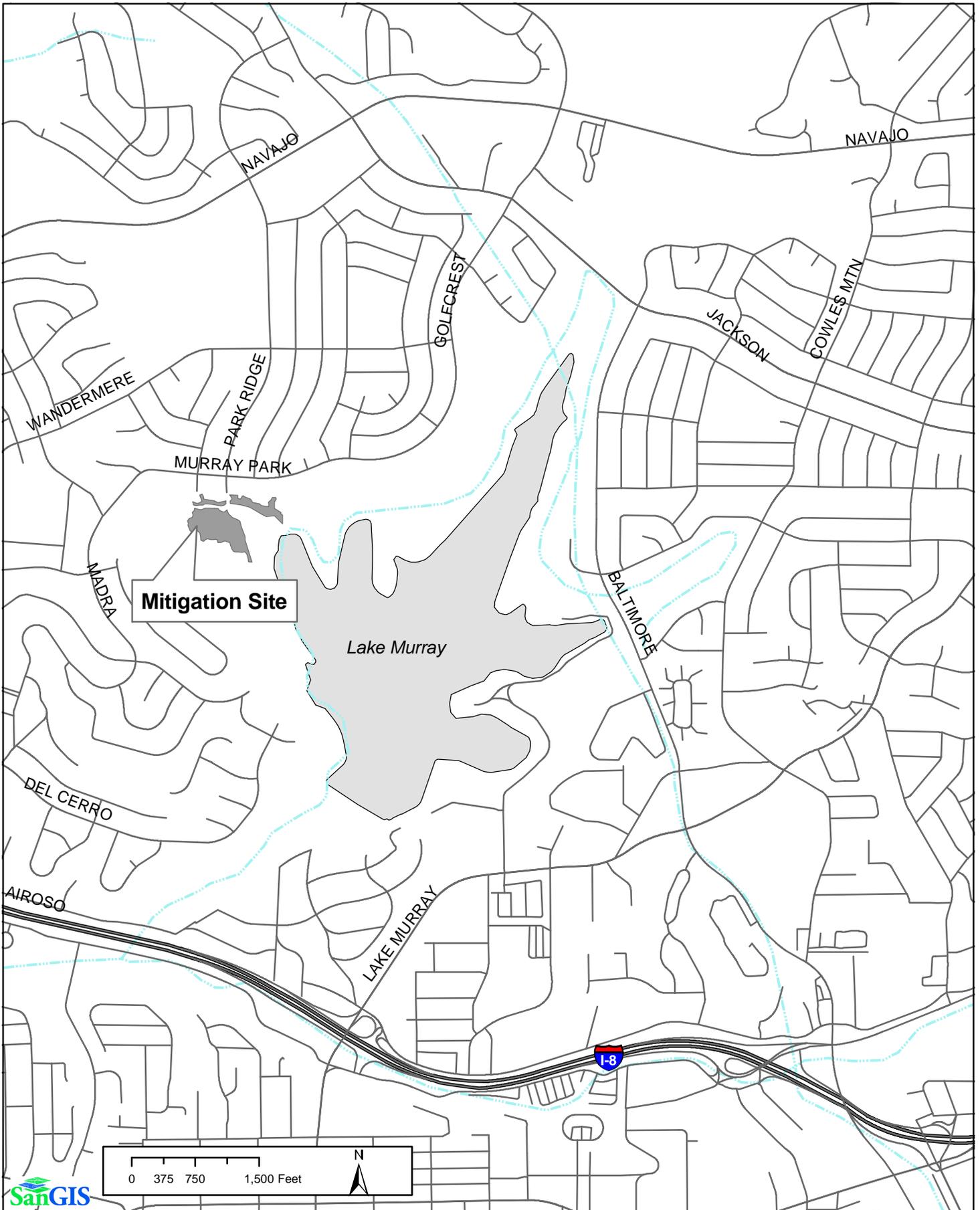
Lake Murray Mitigation Project

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

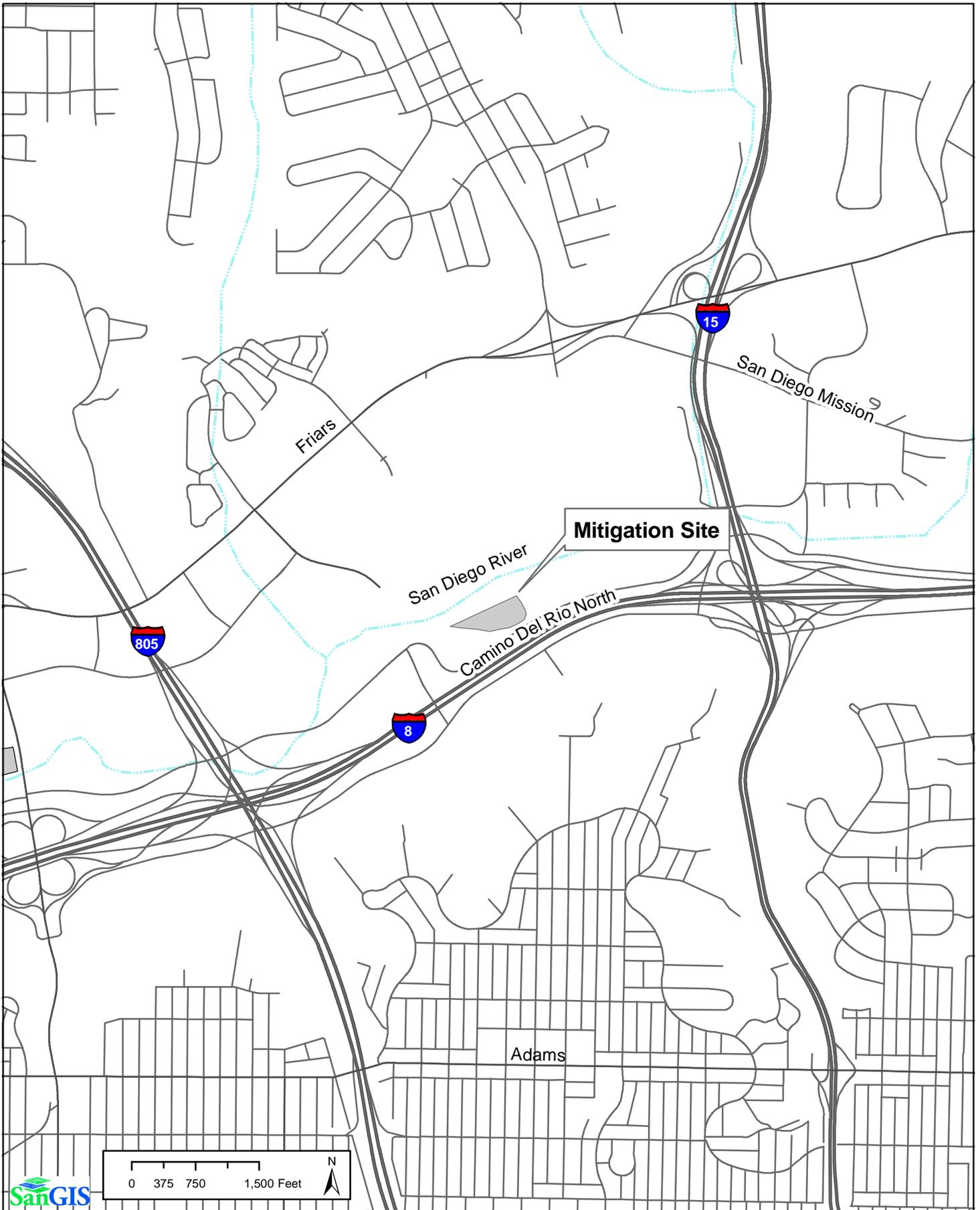
San Diego River Wetland Creation Project

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

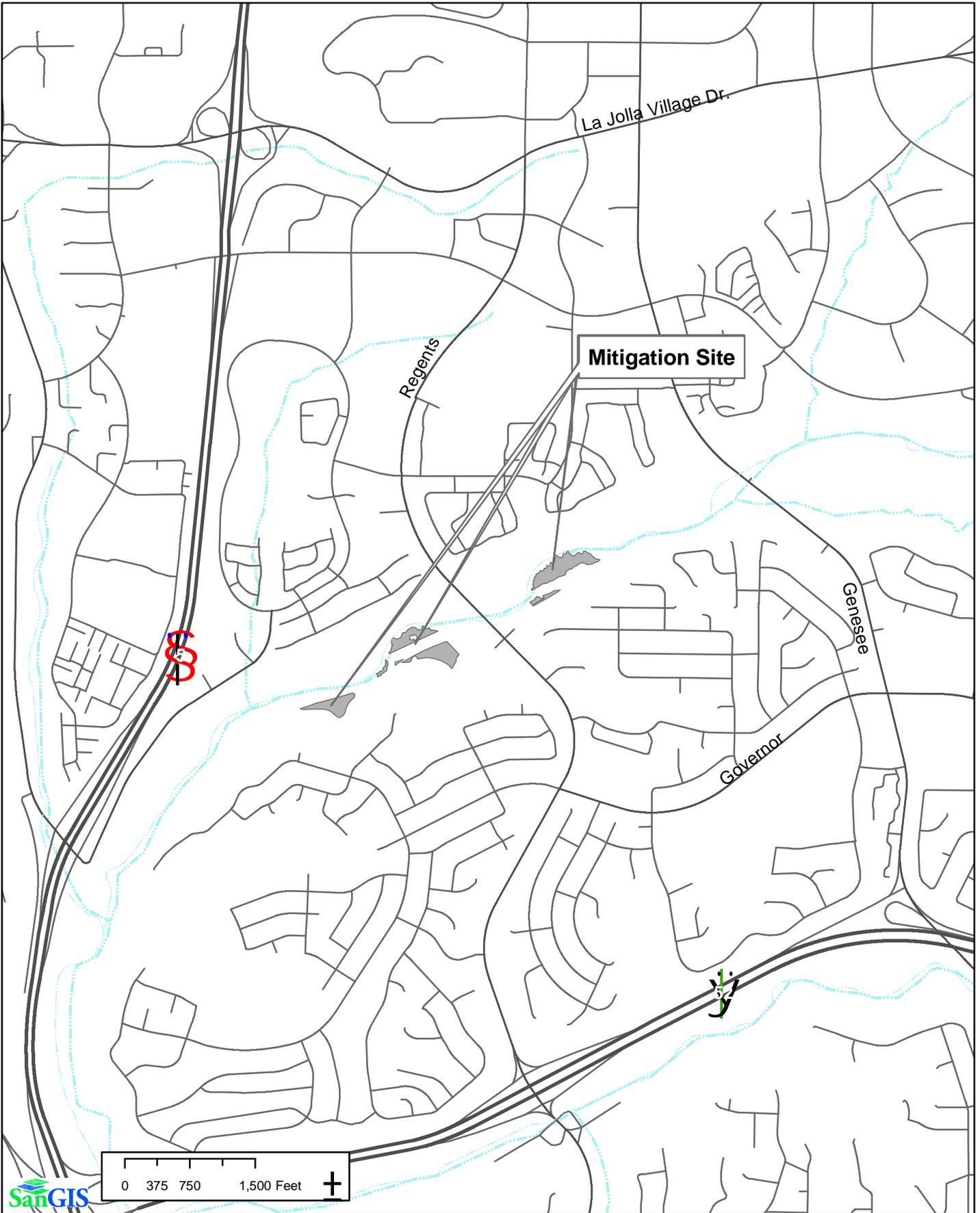
The Rose Canyon Mitigation Project is located in the Rose Canyon Open Space Park, starting approximately one half mile west of Genesee Avenue and continuing another one half mile further west into the park (Figure 4).

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

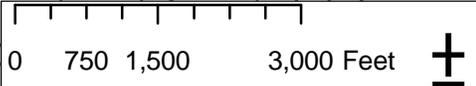
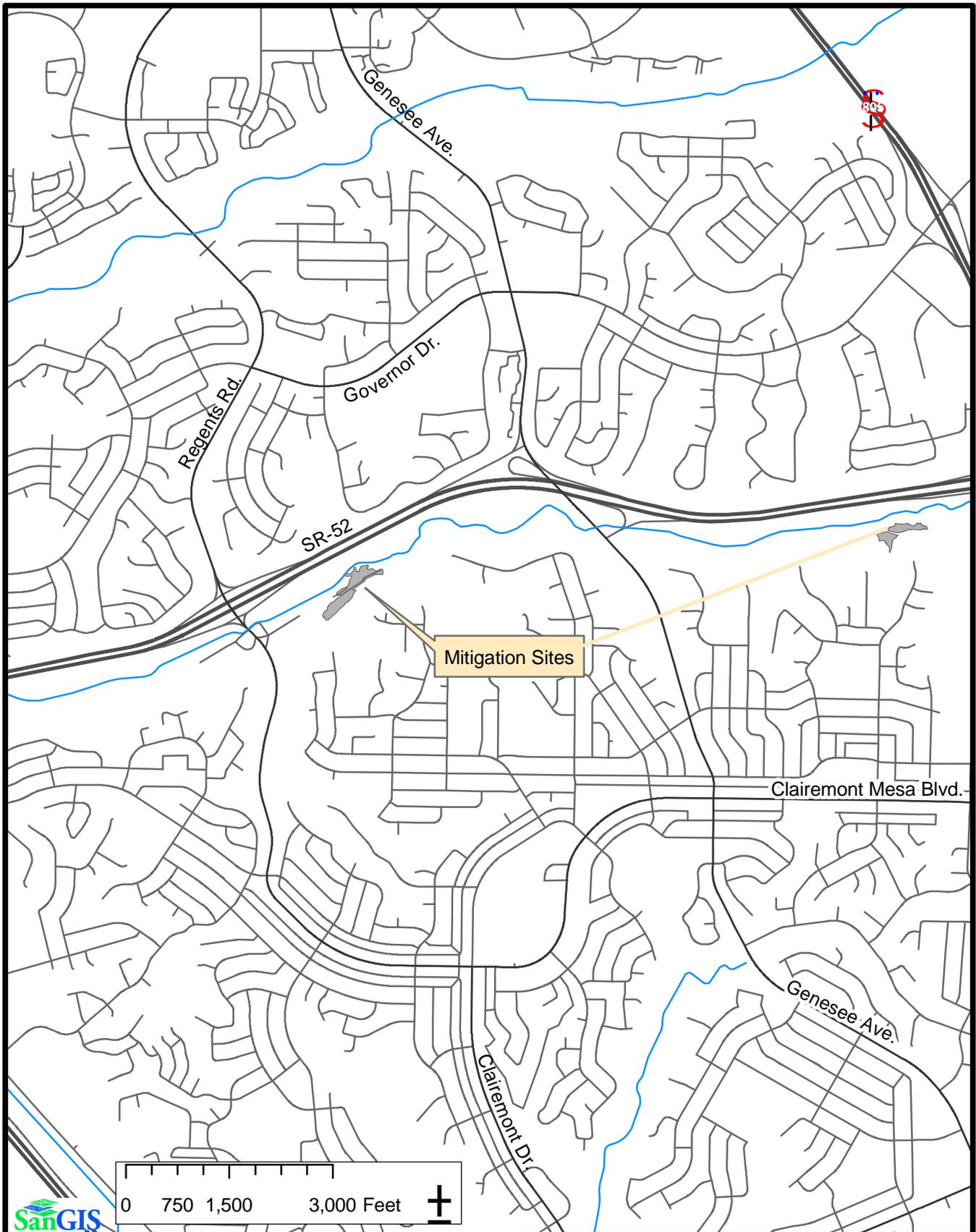
The San Clemente Canyon Mitigation Project provides mitigation for impacts associated with implementation of the San Clemente Canyon Maintenance and Access Plan as well as impacts from past emergency repairs to the sewer system within San Clemente Canyon/Marian Bear Memorial Park and surrounding watershed.

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

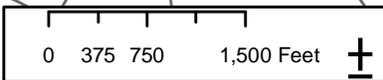
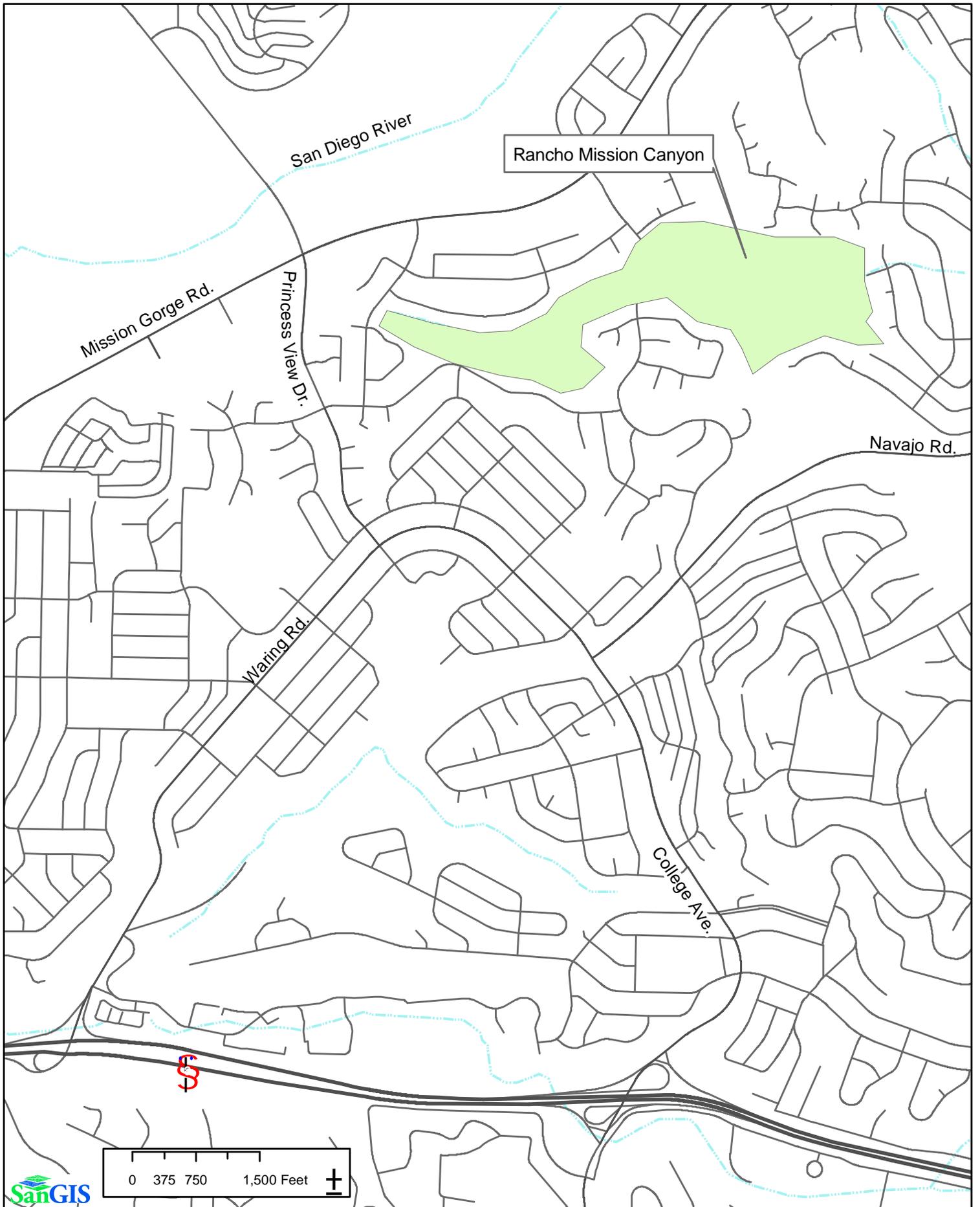
The Rancho Mission Canyon Wetland Enhancement Project is located in the City's Rancho Mission Canyon Open Space Park, south of Mission Gorge Road, north of Navajo Road, and on either side of Margerum Way in the Allied Gardens Community of the Navajo Community Planning Area (Figure 7).

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.

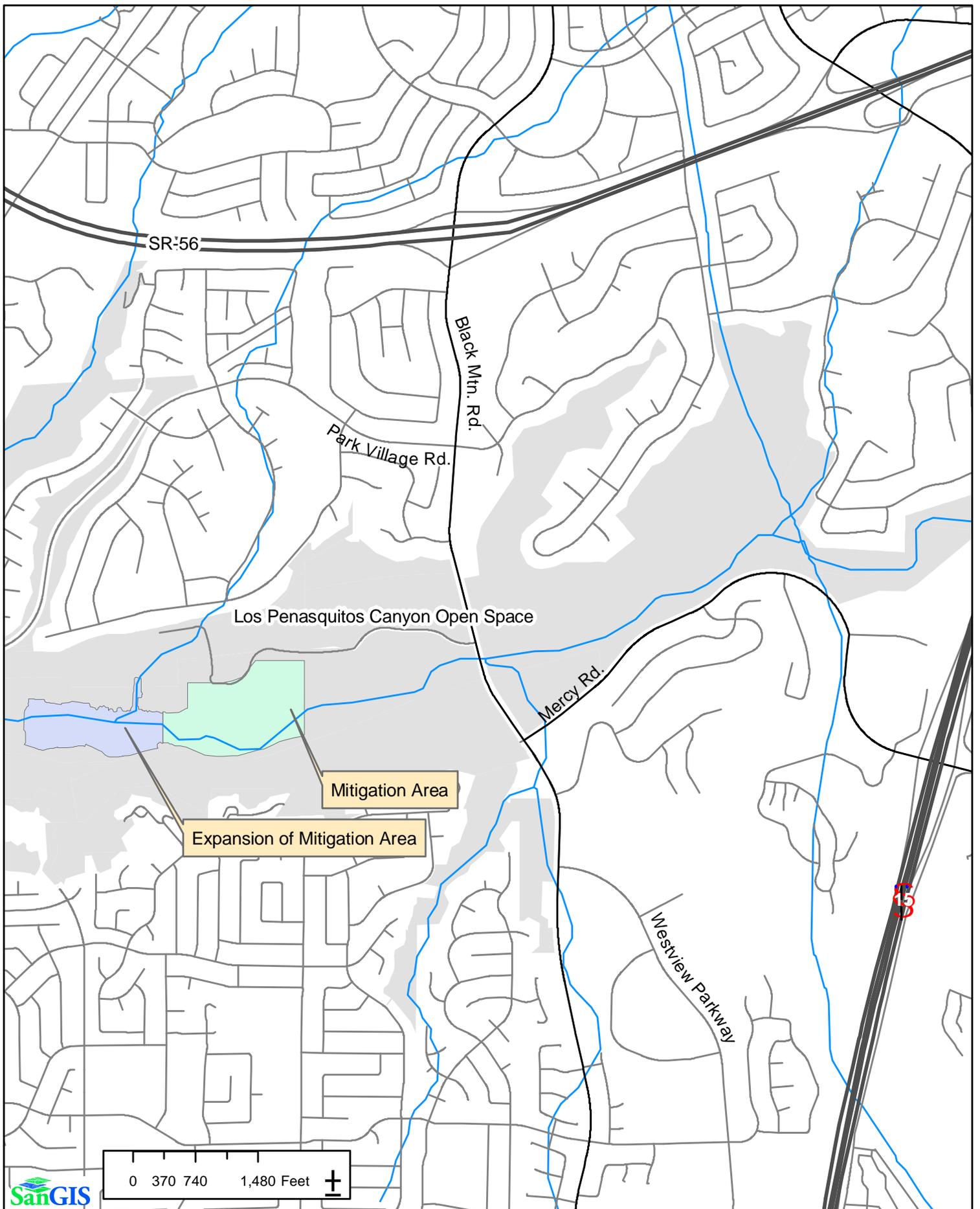
The mitigation site is located along Los Peñasquitos Canyon approximately 0.5 mile west of Black Mountain Road in the vicinity of the historically designated Johnson Taylor Adobe of Rancho de los Peñasquitos (City of San Diego HRB Site #75). The site is within the MHPA on County and City of San Diego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

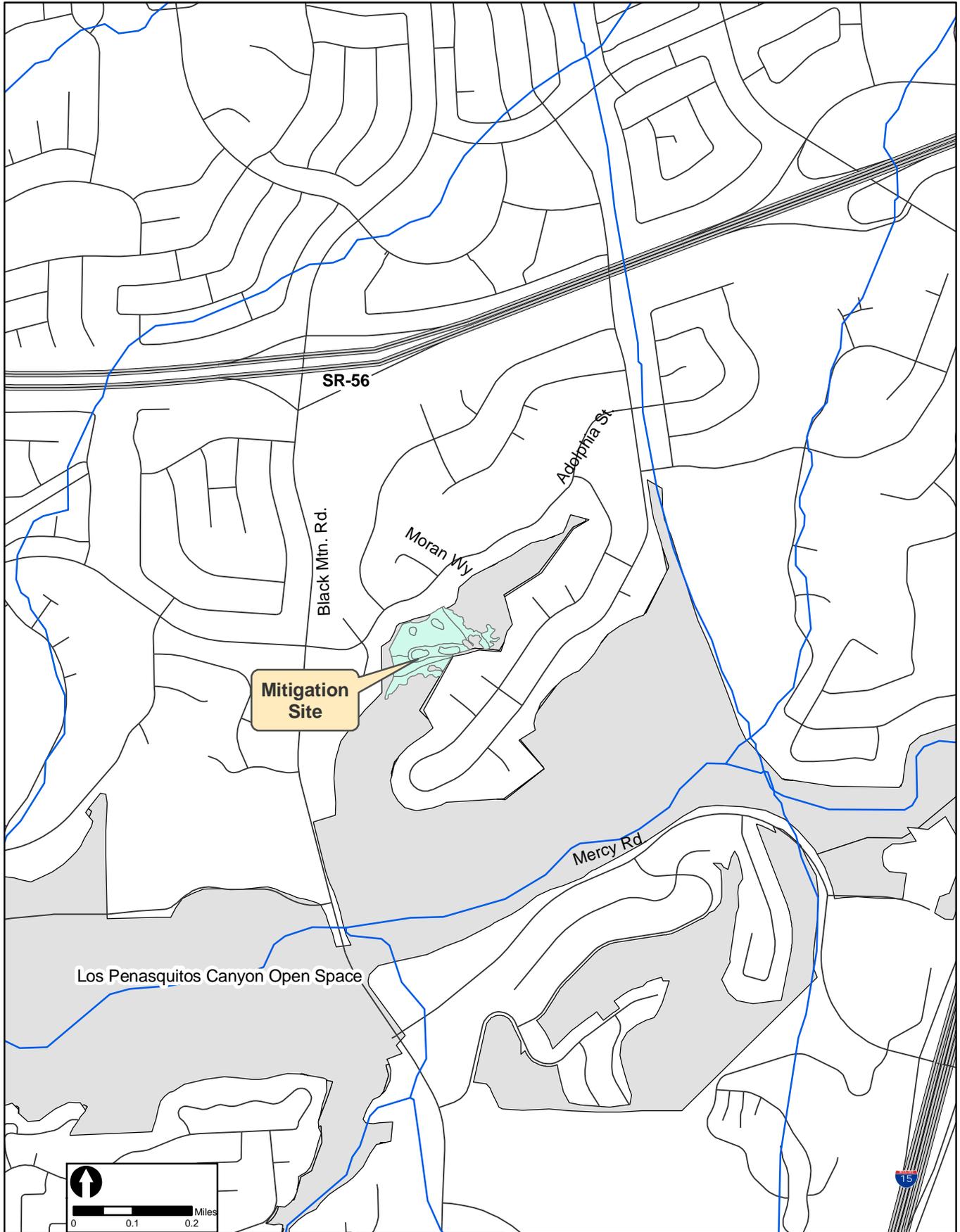
The project area is currently infested with invasive non-native plant species that have little value for wildlife. The site currently supports mustard (*Brassica* sp.), artichoke thistle (*Cynara cardunculus*), tocalote (*Centaurea melitensis*), and many non-native grass species. The goal of the project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

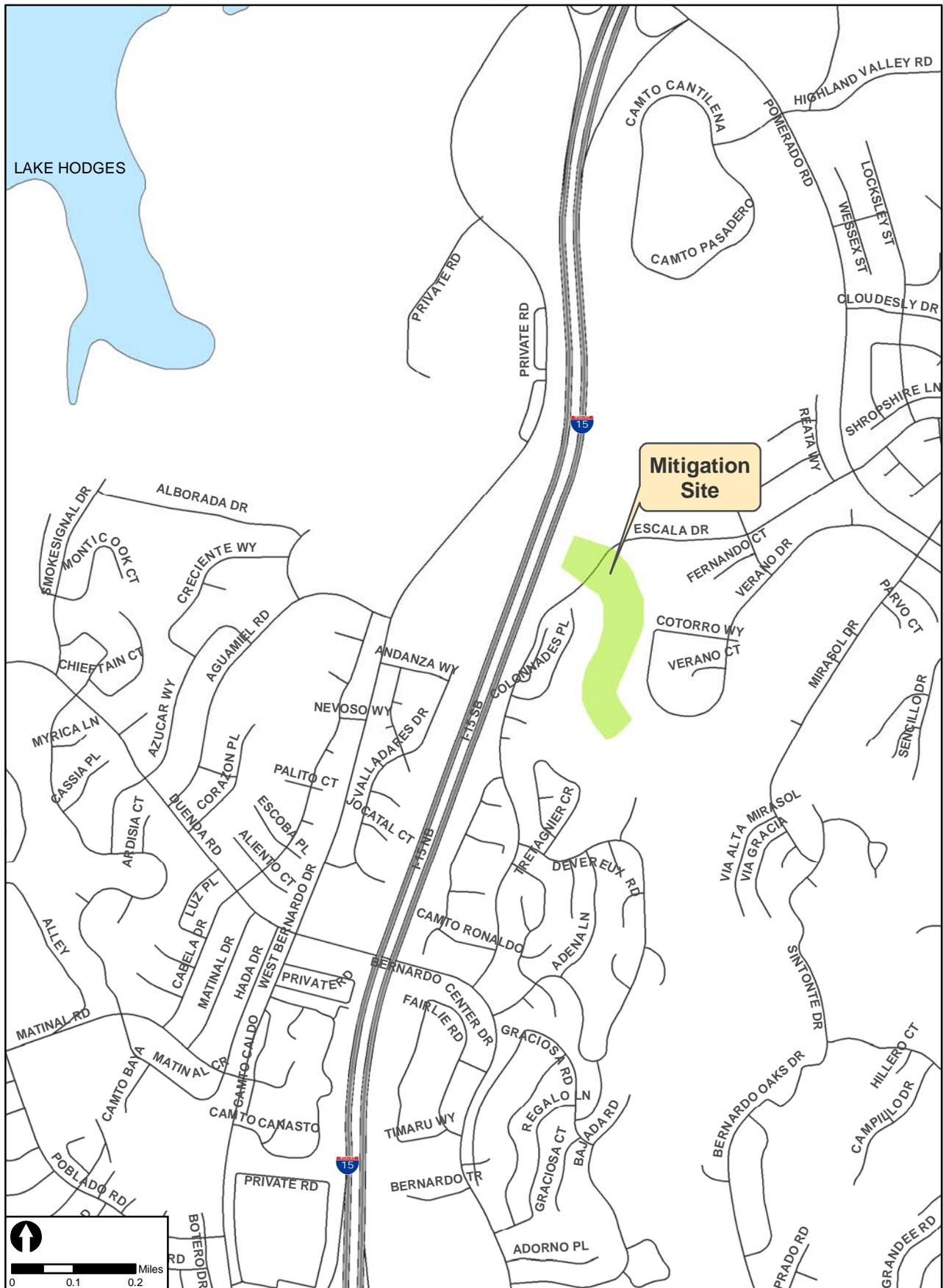
A conceptual design plan is being prepared for this project, to be located east of I-15, west of Cotorro Road and south of Escala Drive in Rancho Bernardo Canyon (Figure 11).

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

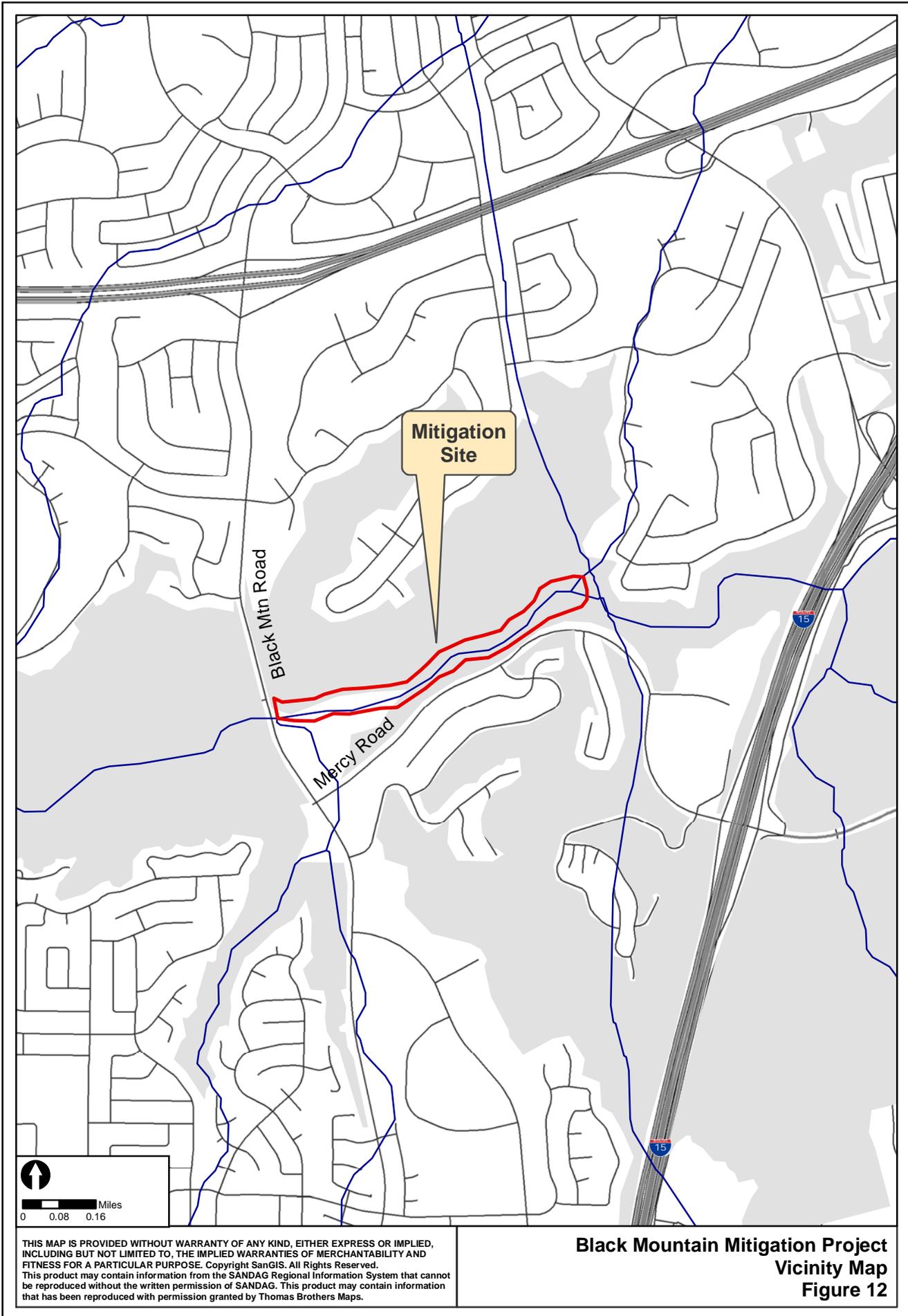
A conceptual plan is being prepared for this project, to be located west of I-15, east of Black Mountain Road, and north of Mercy Road in Penasquitos Canyon (Figure 12).

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



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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