



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

City of San Diego
Public Utilities Department



September 2013



Cover: Top: Manhole lid and cover with California poppy (Eschscholzia californica), Bottom: Sewer Access

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EXECUTIVE SUMMARY

In response to an Administrative Order from the U.S. Environmental Protection Agency, in an effort to reduce sewer spills and beach closures, and under the direction of Council Policies 400-13 and 400-14, the City of San Diego's Public Utilities Department (Public Utilities) 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.

A Programmatic Environmental Impact Report (PEIR) was prepared to study the Program and in July 2004 the City of San Diego approved Coastal Development Permit No. 13506 and Site Development Permit No. 13507 for the Program.

The objectives of the Canyon Sewer Cleaning Program and the Long-Term Canyon Sewer Maintenance Program are:

- To complete the inspection and cleaning of City of San Diego sewer infrastructure located in canyons and other environmentally sensitive lands.
- To identify and implement efficient, effective, and environmentally sensitive means to accomplish the necessary canyon sewer cleaning activities.
- To provide for long-term maintenance of canyon sewer infrastructure, recognizing that availability of access to the infrastructure is essential for an effective long-term program, in accordance with Council Policy 400-13.
- To evaluate and pursue options to redirect sewage flows out of canyons and into street sewer lines or other accessible areas, where feasible and appropriate pursuant to Council Policy 400-14.

This annual report, as required by the site development permit condition 27, provides a Progress Report to the Open Space Canyons Advisory Committee (OSCAC) on the Program for the year from July 2012 through June 2013. The report provides the status of all Program activities within the reporting year, including habitat mitigation, long term access planning and implementation, construction and emergency projects, and 25 month revegetation and restoration projects.

LONG TERM ACCESS PROJECTS

Long Term Sewer Access Projects provide access paths to sewer infrastructure for ongoing maintenance, inspections, and cleaning. 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 an environmentally sensitive area or canyon versus providing access to the sewer if it remains in place.

When redirection of flow is found to be infeasible from all or portions of environmentally sensitive lands/canyons, City staff develop a Long Term Maintenance and Emergency Access Plan (MEAP) in accordance with Policy 400-13. Staff prepare and submit Substantial Conformance Review packages to the Development Services Department (DSD) for a determination whether the proposed mitigation, restoration, and access planning for individual canyon areas or project is in conformance with the Programmatic Environmental Impact Report (PEIR) and Program master permits. Project specific design plans are then prepared as necessary to provide specific plans on access improvements and direction on construction, to provide additional information necessary to obtain regulatory agency permits. Separate permits or clearances are obtained from the regulatory agencies prior to implementation of long term access projects.

The following canyons are in various stages of long term access planning and implementation:

- 32nd Street - Sewer access paths located in upland areas have had wood chips installed and are currently being used by the Wastewater Collection (WWC) Division. Public Utilities staff received regulatory agency permit approval to construct access path improvements at streambed crossings. Public Utilities is finalizing contract documents for constructing improvements to streambed crossing areas and is planning to construct in 2014.
- Alvarado - The long term sewer access plan has been approved in concept and the detailed access path design for this project is complete. Public Utilities staff is starting on the permits, property acquisition, and developing contract documents.
- Black Mountain - Implementation of long term sewer access for this canyon has been completed. Public Utilities is working with Park and Recreation on finalizing a Memorandum of Understanding (MOU) for the ongoing maintenance and use of access paths.
- Carroll Canyon – Environmental Section staff is working with Wastewater Collections Division to gain access rights to certain priority areas.
- Park Mesa - City forces completed construction of the long term access path in the summer of 2011. The project required easement acquisition from four

property owners. All easements have been acquired with the exception of the United States Navy which is currently under review.

- Rancho Mission – Public Utilities reassessed the canyon access plan, identified an alternative access using existing paths, and eliminated the need for one stream crossing and approximately 600 ft of access in riparian habitat. Access path improvements on the east side of Margerum Avenue were completed by City forces in November 2011. The design for an improved streambed crossing on the west side of Margerum Avenue has been completed. Public Utilities staff submitted permit applications in April 2013 and are awaiting response from the regulatory agencies. Public Utilities staff is developing construction contract documents.



Rancho Mission – Long Term Access Path

- Tecolote East – Final design for East Tecolote Canyon was completed in June 2012. Public Utilities staff is starting on the resource agency permit applications and developing contract documents for constructing access path improvements.
- Norfolk Canyon – Public Utilities staff is working on obtaining agency approvals and plans to have all necessary permits by 2014. Staff is additionally working with Real Estate Assets to identify and acquire all necessary easements and access rights.
- South Chollas —Public Utilities completed the LTA Plan, MEAP, and all preliminary environmental studies. Staff is in the process of completing the SCR submittal. Following the SCR submittal, upland implementation will proceed where appropriate and detailed design drawings will be prepared for the streambed crossing improvements.

- North, Central, and Southern Tecolote Canyon – Tecolote canyon has been separated into manageable sections and an approved conceptual long term access plan completed for each. A Consultant has been tasked with completing a Technical Memorandum to incorporate the Long Term Access Plans for all three sections into the planning study and scope of a larger CIP. The Technical Memorandum includes the design criteria of all access paths and streambed crossing improvements. The Long Term Access design criteria will be included in the design of the CIP Project when it moves forward.
- VanNuys Canyon – A new Redirection of Flow Study and Access Recommendation have been completed and the project will be proceeding with long term access design.
- Mt. Elbrus – In November, 2011, WWC installed a prefabricated fiberglass bridge in Mt. Elbrus Canyon. Public Utilities staff is designing three additional stream crossing improvements and starting on agency permits for anticipated construction in 2014.



Mt. Elbrus Canyon- Stream Crossing Site - In Design

CONSTRUCTION AND EMERGENCY PROJECTS

During this reporting period seven Capital Improvement Program (CIP) projects were completed or are still in construction: GJs 732, 780, 672a, Montezuma Trunk Sewer, Alvarado TS PHIII and IIIA, and Balboa Terrace Trunk Sewer. 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 Buchanan B, Group Job 691, Group Job 703a, Group Job 799, GJ 703a, Group Job 835, Group Job 776, Group Job, Sewer Rehabs T-1 and W-1 and Tecolote Canyon Sewer and Manning Canyon sewer abandonment projects. These jobs are managed by the Engineering and Capital Projects, Public Works Department.

Since July 2012, emergency projects and/or pipeline/manhole repair projects occurred in the following canyons or environmentally sensitive areas:

Emergencies

- Petra Place (blocked pipe, pipe repair)
- Casita Way (pipe repair)
- Stevenson MH 257 (manhole replacement)
- Cardinal Drive (pipe protections)
- Kelton Road and SR94 (spill and clean-up)
- Nobel Drive (pipe repair)
- Shawn Canyon (spill and clean-up)
- Balboa Park Lateral (pipe repair)

Other construction projects

- Fairway Rd Spot Repairs (spot repairs)
- Buchanan Canyon MH 31 (path creation, manhole raising)
- Imperial and Woodman (spot repairs)
- Ocean Blvd Pipe Removal (sewer removal)
- 1922 Mission Ave (spot repair)
- Fay Avenue (spot repairs)
- Snead Ave MH 250 (manhole locate and raise)
- Wellington Repairs (spot repairs)
- Ridgemoor Repairs (spot repairs)
- Alvarado Mh 458 and 459 (access creation, manhole repairs)
- Shawn Canyon MH 162 (manhole maintenance)
- 2929 Caminito Bello (spot repair)
- 5416 Redlands Pl (spot repairs)

Public Utilities staff manage emergency and non-CIP construction projects. Environmental review, monitoring, and reporting are done in adherence with the

Program. Biological assessments have been prepared for these emergency and construction projects. Following construction, revegetation and/or restoration has been implemented in accordance with the Program.



Snead Ave Manhole 250 Locate and Raise



Stevenson Manhole 257 Emergency Replacement

25 MONTH REVEGETATION AND RESTORATION PROJECTS

Conditions of the Master permit require effective erosion control of access paths and restoration of impact areas outside of path areas following construction. Each impact area is monitored and maintained for a period of no less than 25 months.

Revegetation sites include all areas required for permanent access to utilities including the access paths, turn-arounds, and work areas around manholes. When new access paths and permanent access areas are created, revegetation is required. The goal of revegetation is successful erosion control. Maintenance and monitoring of revegetation areas may include hydroseeding or hand-seeding, weeding, mulching or installing wood chips on the path, installation of temporary Best Management Practices (BMPs), site monitoring or a combination of the above treatments.

Restoration sites are areas impacted outside of permanent access areas. Restoration areas are typically staging areas, emergency access or work areas, pipeline repair areas, unauthorized impact areas, or areas disturbed as a result of temporary widening of pathways. The goal of habitat restoration is re-establishment of native habitat. Restoration areas shall obtain native plant coverage equal to the native species present in the adjacent area or 30% coverage, whichever is greater. Restoration areas shall support no more than 1% perennial weeds and no more than 10% annual weeds during the 25 month maintenance period. Maintenance and monitoring of restoration areas may include hydroseeding or hand-seeding, installation of container plants, weeding, installation of temporary Best Management Practices (BMPs), site monitoring or a combination of the above treatments.

Seed and plant material used for revegetation and restoration efforts is from locations within 25 miles of the coastline in San Diego County. Maintenance and monitoring of all sites 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, eleven projects were completed (9 sewer projects and 2 water). In addition to seventeen ongoing projects, eleven additional sites were installed and maintenance and monitoring of these sites was initiated.

Updates of the status of the revegetation and restoration projects are a regular agenda item at OSCAC's meetings. See Attachment A for the July 2013 Revegetation and Restoration Projects Status update table.



Middle Rose Canyon Emergency Sewer Cleaning Restoration Project

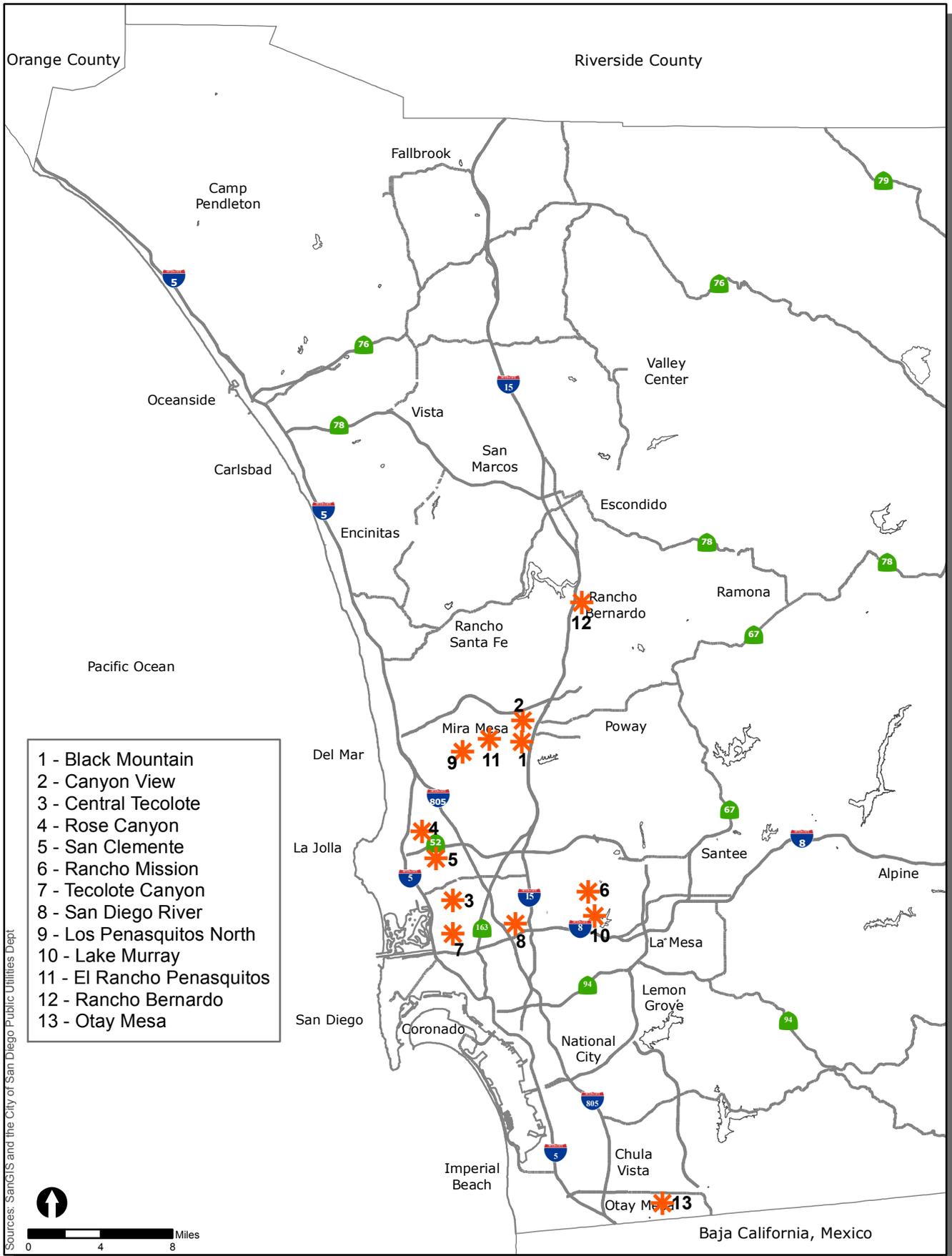


Stevenson MH 257 Replacement Revegetation (erosion control) Project

MITIGATION PROJECTS

In accordance with applicable local, state, and federal regulations, restoration, revegetation, or mitigation is required for significant biological impacts resulting from the Program, such as the creation of access paths through environmentally sensitive areas, emergency repairs, and pipeline repair projects. In order to mitigate these impacts, Public Utilities staff has identified and implemented a number of habitat mitigation projects located within various watersheds where past, current, or future impacts have or may occur. These mitigation sites are designed and built to accommodate numerous Public Utilities projects. Allocation of mitigation is completed as each project is planned, permitted and constructed. Project impacts and mitigation assignments are tracked internally within the Canyon Database. A summary of acreage available, assigned and the balance is included as Attachment B. A more detailed summary of assignments is included as Attachment C.

The location of these projects is shown in Figure A. The status of each habitat mitigation project is summarized below.



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

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

**PUD Mitigation Sites
Overview Map**

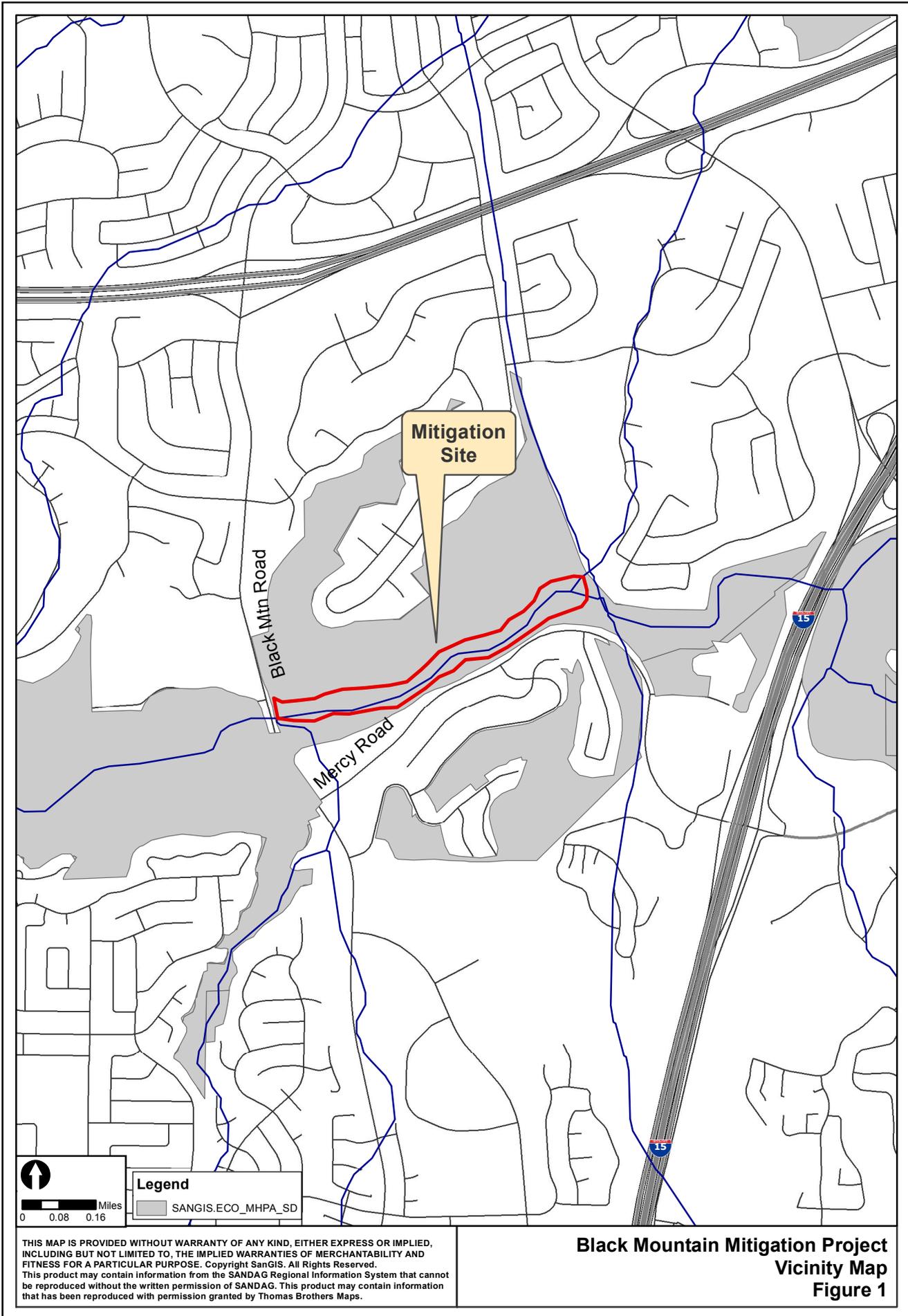
**FIGURE
A**

Black Mountain Wetland Mitigation Project

A conceptual plan has been prepared for this project and is pending resource agency submittal. This project would be located west of I-15, east of Black Mountain Road, and north of Mercy Road in Los Penasquitos Canyon (Figure 1). The project area currently supports a large area of invasive non-native plant species that has 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 all non-native plant species and create native wetland habitat in areas of disturbed uplands. Project components will include eradication of exotic plant species, grading, installation of a temporary irrigation system, planting, seeding, and a 5 year maintenance and monitoring period. Anticipated mitigation credits would be 1.17 acres of wetland creation and 0.79 acres of wetland enhancement. Further development on this project is on hold until discussions between the Park and Recreation Department and Public Utilities have concluded.



Black Mountain Mitigation Project Site



Legend
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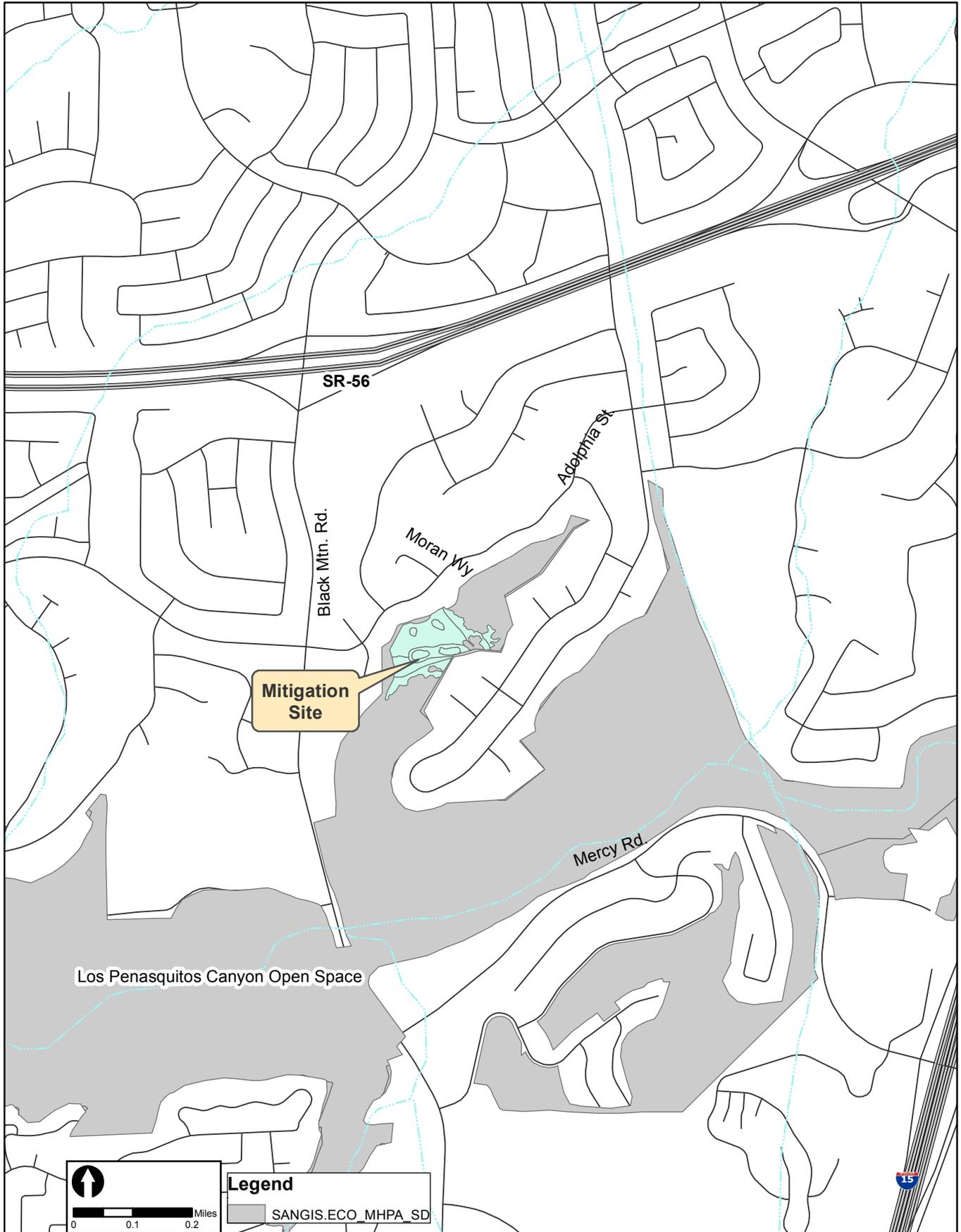
**Black Mountain Mitigation Project
 Vicinity Map
 Figure 1**

Canyon View Upland Restoration Mitigation Project

Construction began in September 2011 for this project, located east of Black Mountain Road and south of Adolphia Street in Los Penasquitos Canyon (Figure 2). The project involves the restoration of approximately 0.9 acres of native grassland and 6.79 acres of coastal sage scrub habitat, located on City of San Diego owned parcels within Los Penasquitos Canyon. The project serves to mitigate impacts associated with Public Utilities projects located in Los Penasquitos Canyon Preserve. Exotic species removed from the site include: mustard (*Brassica* sp.), artichoke thistle (*Cynara cardunculus*), totalote (*Centaurea melitensis*), and many non-native grass species. The project is using recycled water for temporary irrigation during the plant establishment phase and through a portion of the 5 year maintenance and monitoring period. The maintenance contractor replaced 321 dead plants in June of 2013. Coastal California gnatcatchers have been observed foraging onsite within the Diegan coastal sage scrub habitat. Year one of the maintenance and monitoring period ends on November 1, 2013. The site will be maintained and monitored for the 5-year period until agency sign off. The goal of the project is to restore low quality non-native uplands into high quality native habitats.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Diegan Coastal Sage Scrub	6.49	1.44	5.05
Native Grassland	0.89	0	0.89





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**Canyon View Upland Restoration Mitigation Project
Vicinity Map
Figure 2**

Central Tecolote Enhancement Mitigation Project

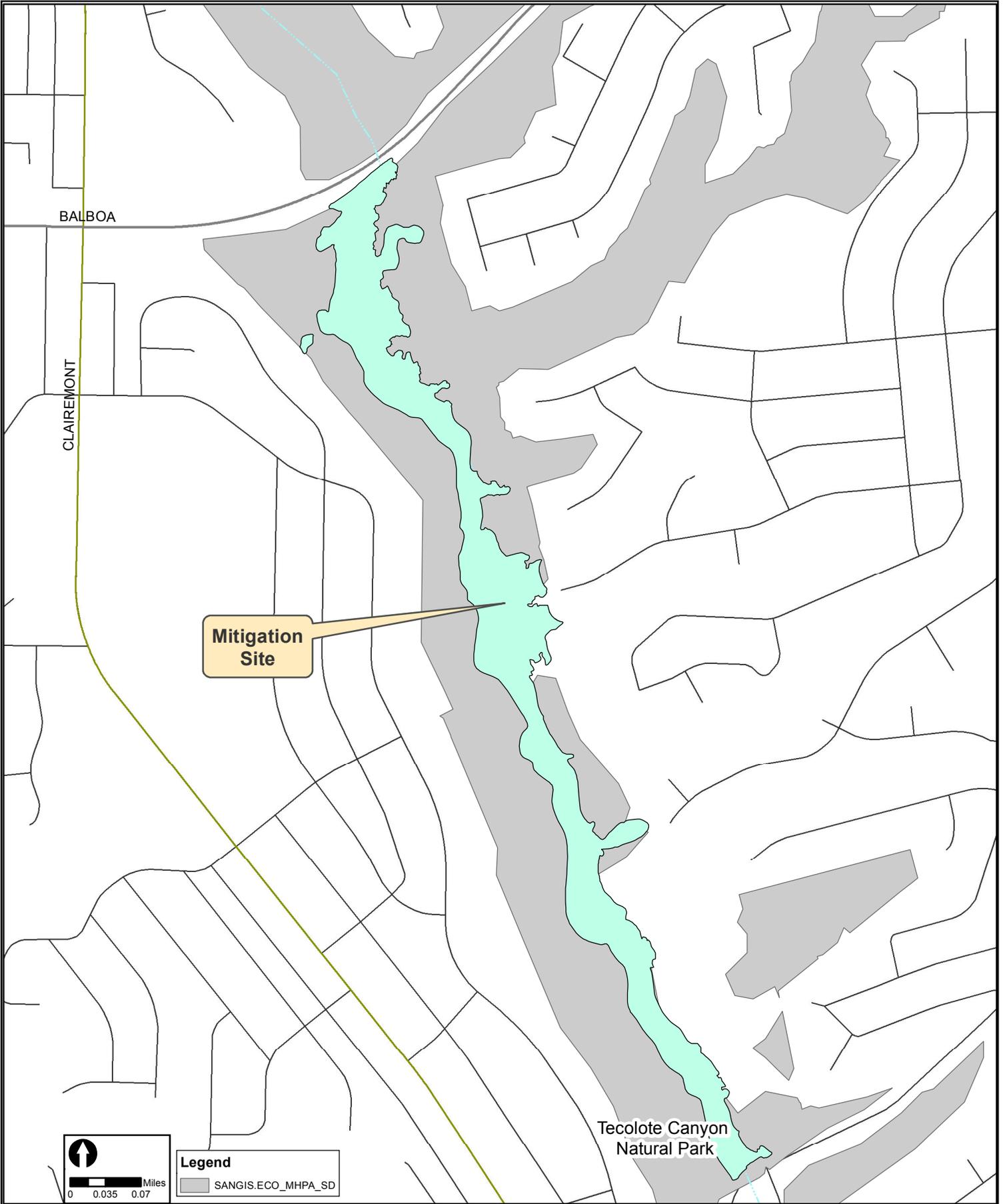
Construction began in February 2011 for this project, located south of Balboa Avenue and north of Mt. Acadia Boulevard in Tecolote Canyon (Figure 3). The project consists of approximately 7.95 acres of riparian enhancement and approximately 3.05 acres of native grassland/coastal sage scrub restoration in addition to a weed management area that encompasses Tecolote Creek.

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, and yellow sweetclover (*Melilotus indicus*). The site is currently in year 2 of the active maintenance and monitoring period. Maintenance activities completed this year include plant replacement, additional seeding and planting, and repairs to erosion control devices. The site will be maintained and monitored for a minimum 5-year period to ensure successful establishment of native species and until agency sign off.

Coastal California gnatcatchers have been observed foraging onsite within the Diegan coastal sage scrub habitat. Bat boxes have been installed to provide roosting opportunities along the creek. Motion detector cameras are planned for installation in Fall 2013 to capture wildlife usage of the site and assist with vandalism deterrence.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Oak Riparian Forest	7.95	2.63	5.32
Diegan Coastal Sage Scrub	1.69	1.07	0.62
Native Grassland	1.36	0.10	1.26





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**Central Tecolote Mitigation
Vicinity Map
Figure 3**

Rose Canyon Mitigation Project

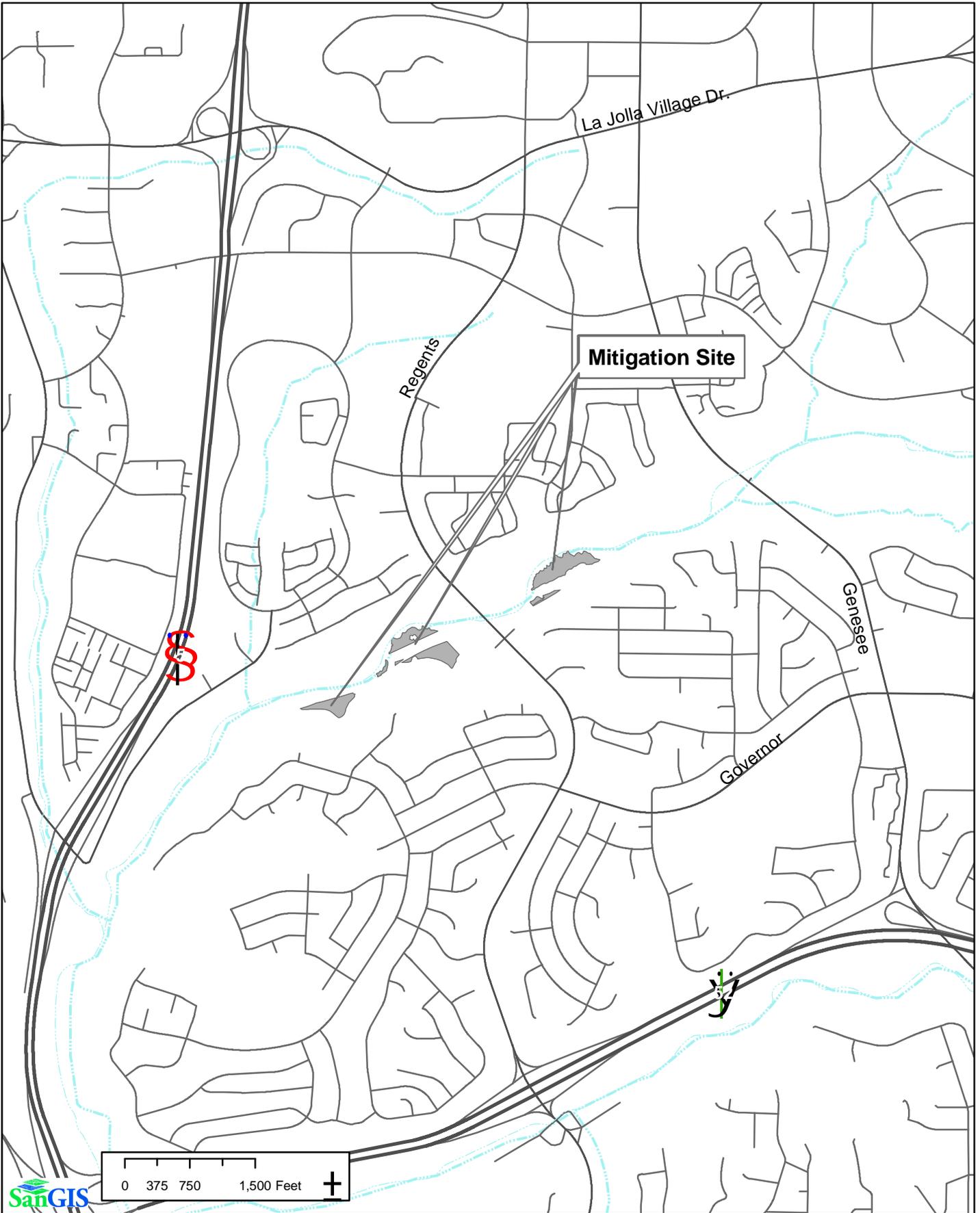
The Rose Canyon Mitigation Project is located in the Rose Canyon Open Space Park, starting approximately one half mile west of Genesee Avenue and continuing another one half mile further west into the park (Figure 4).

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 habitat 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 project entered the 5 year maintenance period on July 15, 2008. The project recently completed it's fifth year of maintenance and is seeking regulatory agency sign-off. Irrigation was turned off in the Fall of 2011. The site easily met and exceeded year 5 success standards with over 90% vegetative cover in the wetlands and over 80% in the uplands.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Riparian Forest- creation	5.31	3.40	1.91
Riparian Forest - enhancement	0.35	0.35	0
Diegan Coastal Sage Scrub	4.88	2.97	1.91
Native Grassland	0.26	0.17	0.09





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Rose Canyon Mitigation Site
Vicinity Map

Figure 4

San Clemente Canyon Mitigation Project

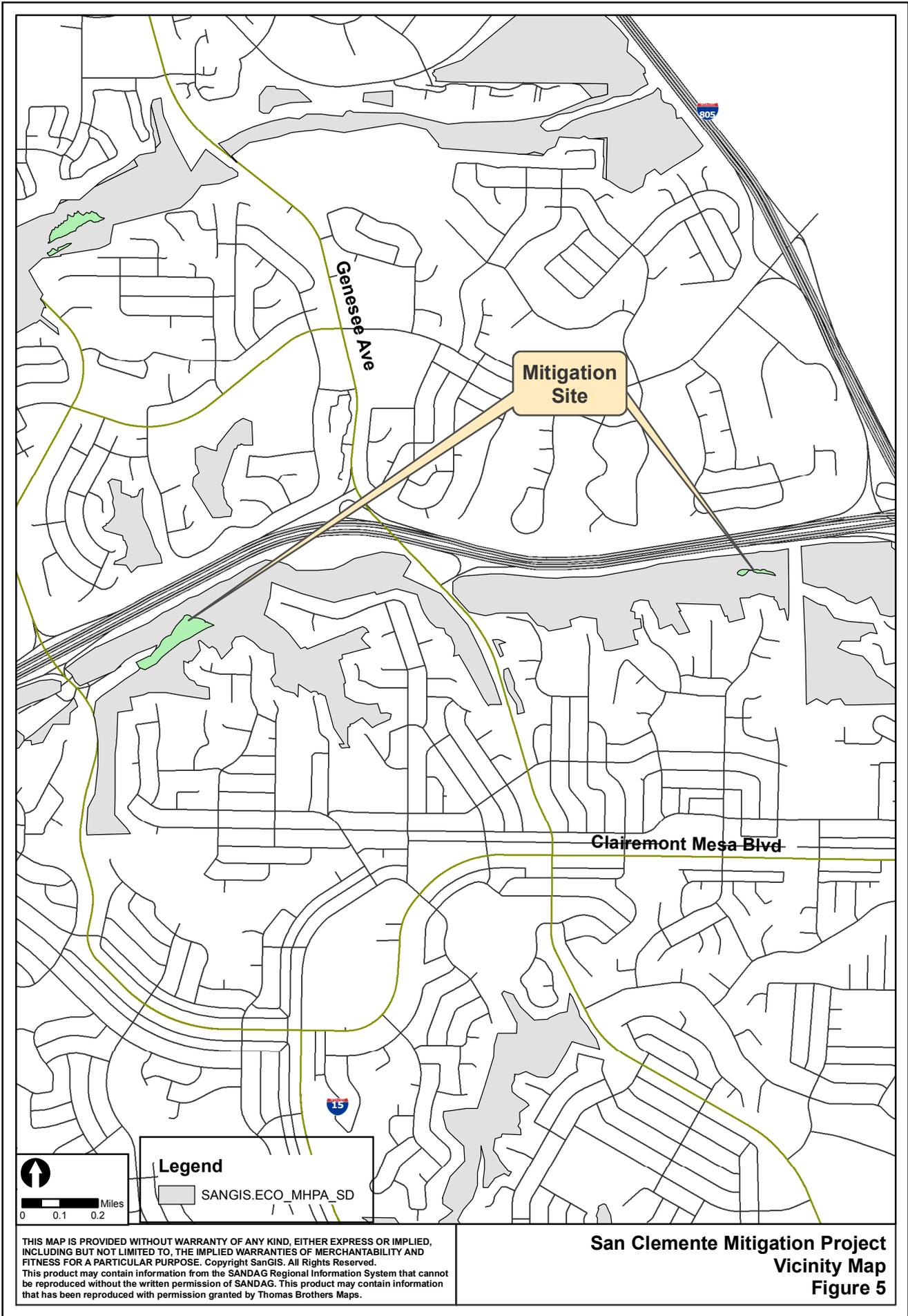
The San Clemente Canyon Mitigation Project provides mitigation for impacts associated with Public Utilities projects within San Clemente Canyon/Marian Bear Memorial Park and surrounding watershed. The project is located at two sites within the park, one just east of the Regents East parking area and the other approximately three-fourths of a mile east of the Genesee parking area (Figure 5).

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).

Construction was initiated in October 2007. The project will end its 5th year of maintenance and monitoring in September 2013. The upland and wetland planting areas for the project have shown steady establishment of target species. One upland area at the Regents site has naturally trended to a transitional wetland habitat, and additional container plants were installed in 2011 to enhance diversity within this area. Additional sycamore trees were planted in August of 2013 following a request from the community. Regulatory sign-off and approval for the project is anticipated in October of 2013.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Riparian Forest	2.18	2.05	0.13
Diegan Coastal Sage Scrub	2.37	1.11	1.26
Native Grassland	0.59	0.19	0.40
Oak Woodland	0.35	0.35	0





Legend
 [Grey shaded area] SANGIS.ECO_MHPA_SD

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**San Clemente Mitigation Project
 Vicinity Map
 Figure 5**

Rancho Mission Canyon Wetland Enhancement Project

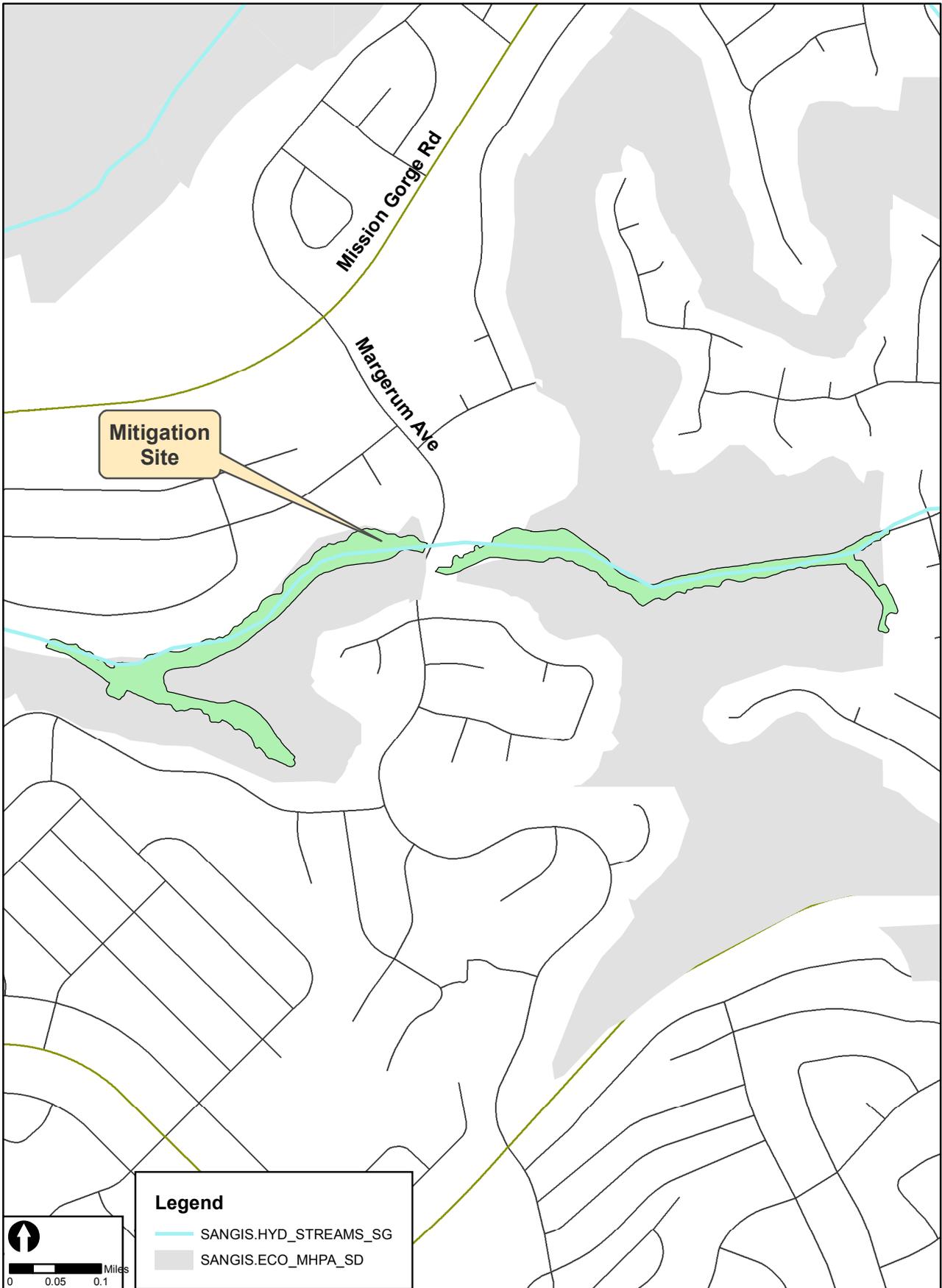
The Rancho Mission Canyon Wetland Enhancement Project is located in the City’s Rancho Mission Canyon Open Space Park, south of Mission Gorge Road, north of Navajo Road, and on either side of Margerum Way in the Allied Gardens Community of the Navajo Community Planning Area (Figure 6).

The Rancho Mission Mitigation Project includes the enhancement of 7.59-acres of wetlands and restoration of 1.53 acres of wetland transitional habitats. Non-native vegetation was removed from the canyon, followed by revegetation with native southern willow scrub and wetland transitional species. 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*), Brazilian pepper (*Schinus terebinthifolius*), pampas grass (*Cortaderia selloana*), Mexican fan palm (*Washingtonia robusta*), and eucalyptus (*Eucalyptus* spp.).

The site completed the 5th year of the long-term maintenance and monitoring period in March 2013. The site currently supports target native cover of 98.6%, exceeding the year 5 goal of 90%. Regulatory sign-off and approval for the project was received in the summer of 2013.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Southern Willow Scrub	8.74	2.16	6.58





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**Rancho Mission Mitigation
 Vicinity Map
 Figure 6**

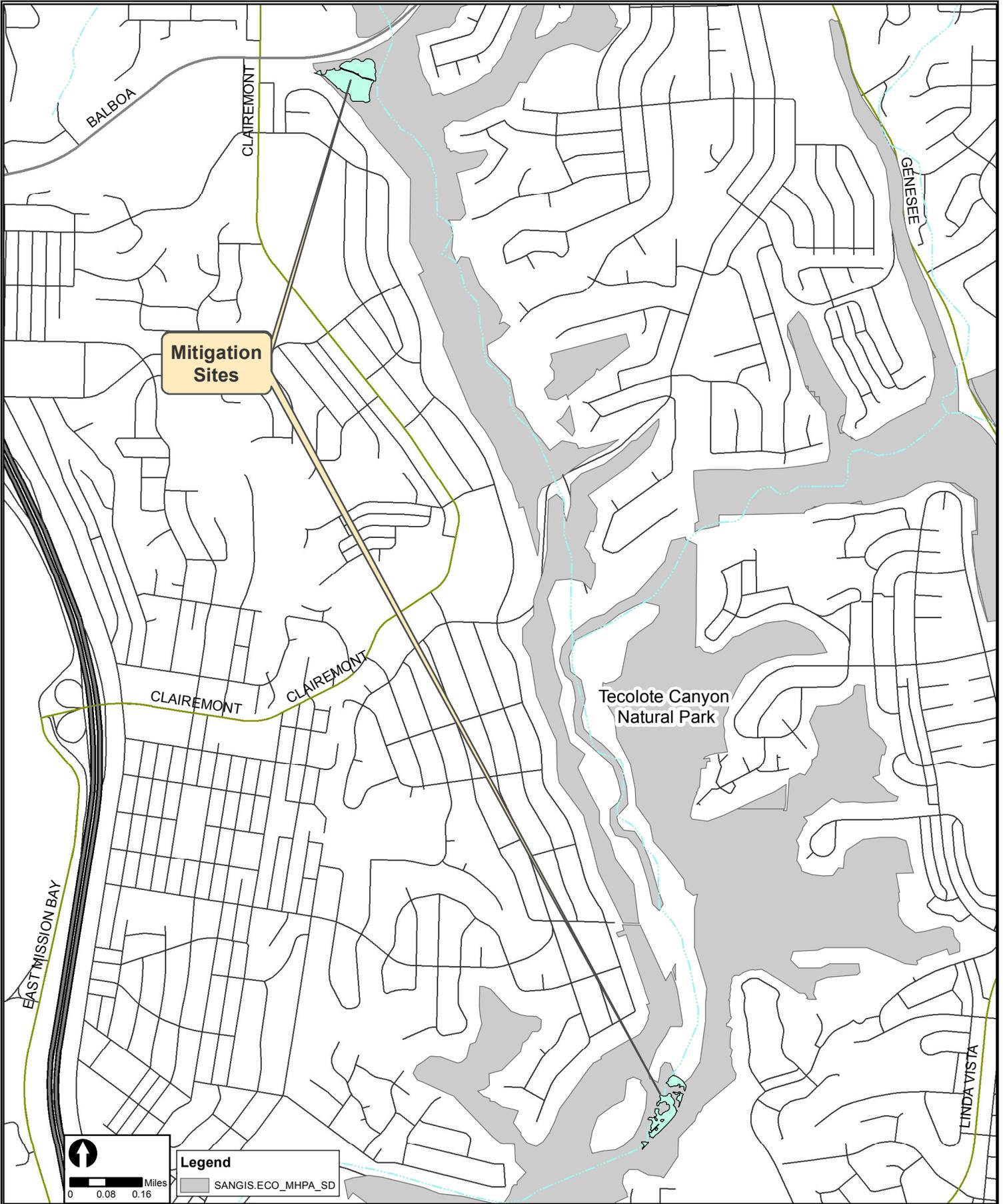
Tecolote Canyon Mitigation Project

The Tecolote Canyon Mitigation Project provides mitigation for impacts associated with projects 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 7).

The project includes the creation of 1.61 acres of wetland habitat (southern willow scrub, southern cottonwood willow riparian forest, and oak riparian forest) and restoration of 3.37 acres upland habitat (Diegan coastal sage scrub & native grassland). Construction was initiated in February 2007 and the five year maintenance and monitoring period began in January 2008. The five year success criteria of 80% coverage of wetland vegetation transects has been met and 75% coverage of upland vegetation transects has been exceeded for the project. Total vegetative cover of target native upland vegetation was estimated to be between 95%-100% for transects in Diegan coastal sage scrub habitats, exceeding the 5-year cover requirement by approximately 25%-30%. The site has completed its fifth year of maintenance and monitoring and has received sign-off from the California Department of Fish and Wildlife and is waiting sign-off from the U.S. Army Corps of Engineers and the City of San Diego Development Services Department.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Riparian Forest	1.19	1.044	0.146
Southern Willow Scrub	0.42	0.42	0
Diegan Coastal Sage Scrub	3.30	2.91	0.39
Native Grassland	0.07	0.018	0.052





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**Tecolote Canyon Mitigation
Vicinity Map
Figure 7**

San Diego River Wetland Creation Project

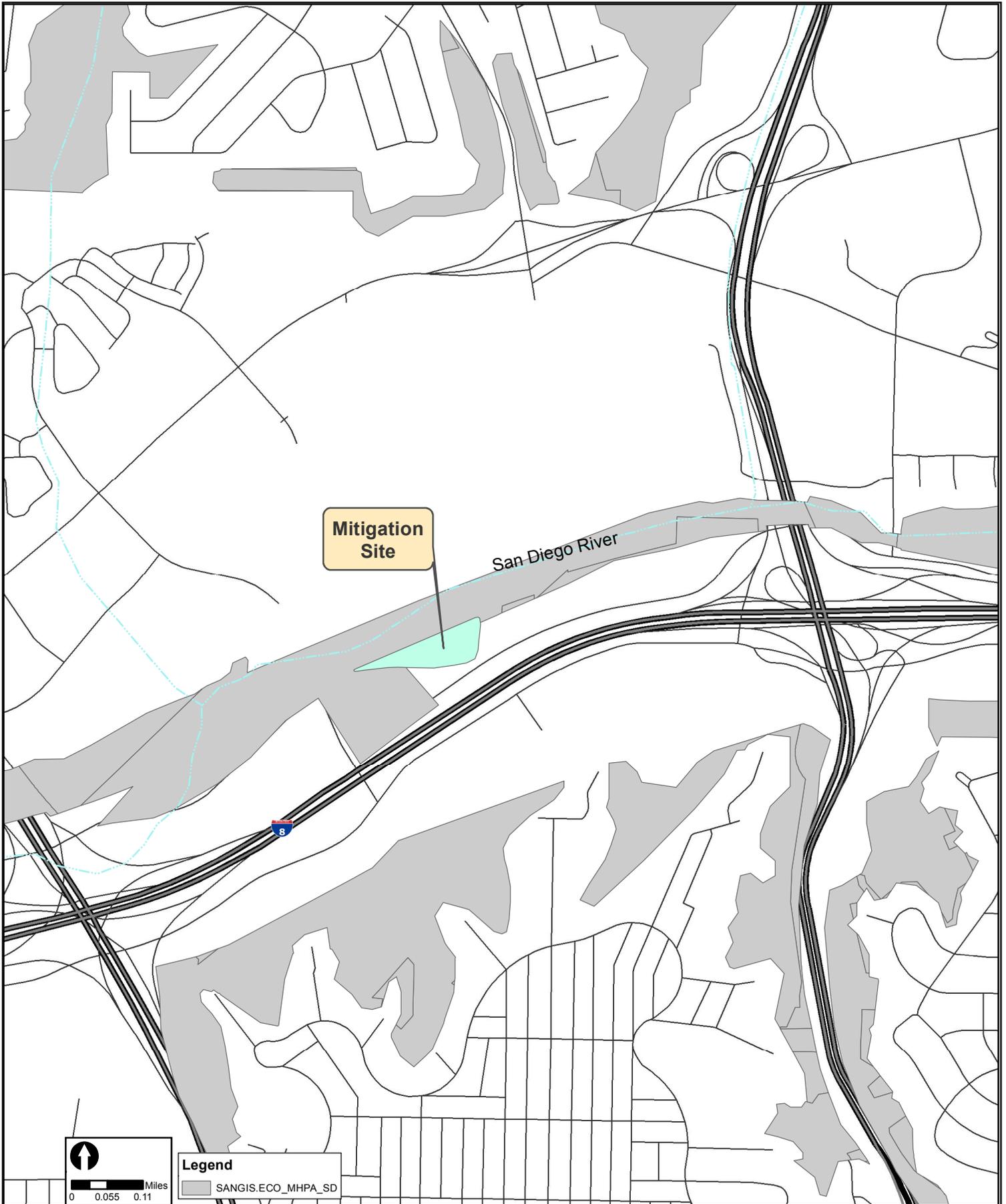
The San Diego River Wetland Creation Project is located on a Public Utilities owned parcel located immediately adjacent to the southerly bank of the San Diego River, north of Camino Del Rio North, west of Interstate 15, and east of Mission Center Parkway in the Mission Valley Community of the City of San Diego (Figure 8).

The site includes the creation of 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 long-term maintenance, monitoring, and reporting program started June 14, 2006 and the site successfully completed 5 years of maintenance and monitoring in June of 2011. Native vegetation has established well with some wetland trees exceeding 20 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 using the site with numerous songbirds and animal tracks observed in the wetland area. Least Bell's vireo were heard calling from the adjacent wetlands. A MHPA boundary line adjustment was approved and finalized in 2012 which added the entire mitigation site into the MHPA.

During the most recent site visit a transient trail and trash were observed along the northern edge of the site in the San Diego River.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Southern Cottonwood Willow Riparian Forest	3.43	2.18	1.25





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**San Diego River Mitigation Project
 Vicinity Map
 Figure 8**

Los Peñasquitos North Wetland Creation Project

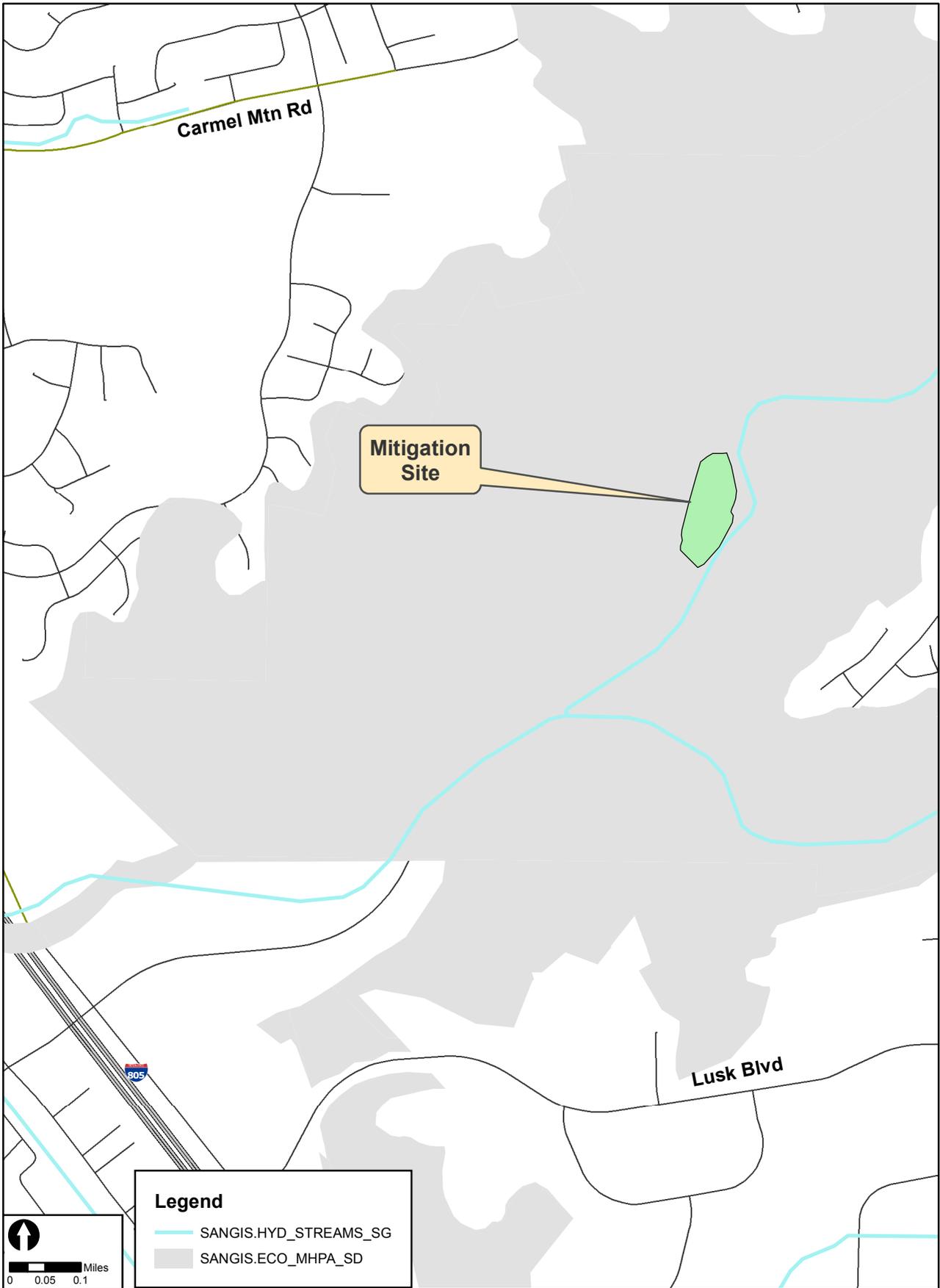
The Los Peñasquitos North Wetland Creation Project is located in the City of San Diego’s Los Peñasquitos Canyon Preserve in the community of Peñasquitos, just north of the Los Peñasquitos Creek (Figure 9).

The project includes the creation 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. Regulatory sign-off and approval for the project was received in the spring of 2012.

The site was assessed in June 2013 and appeared in good condition. The site provides high quality habitat for a number of wildlife species which have been observed foraging onsite. No homeless camps, trash or debris, or unauthorized trails were observed onsite. The site meets the 5th year success standard with over 90% target vegetative cover. Average willow height still falls below the 16 foot average height. Willows show evidence of grazing, and signs of mule deer presence were observed within the site. Vegetation within the wetland habitat is predominately spiny rush (*Juncus acutus*), deer grass (*Muhlenbergia rigens*) and various species of willows. Non-native plant growth on the site is estimated to cover about 5% of the site. The federally threatened coastal California gnatcatcher was observed within the upland portion of the site. Other birds observed onsite include: greater roadrunner, California towhee, California thrasher, house finch, lesser goldfinch, and bushtit.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Riparian Scrub/Riparian Woodland/Freshwater Marsh	3.8	3.6	0.2
Diegan Coastal Sage Scrub	1.03	1.03	0





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**Los Penasquitos North Wetland Mitigation
 Vicinity Map
 Figure 9**

Lake Murray Mitigation Project

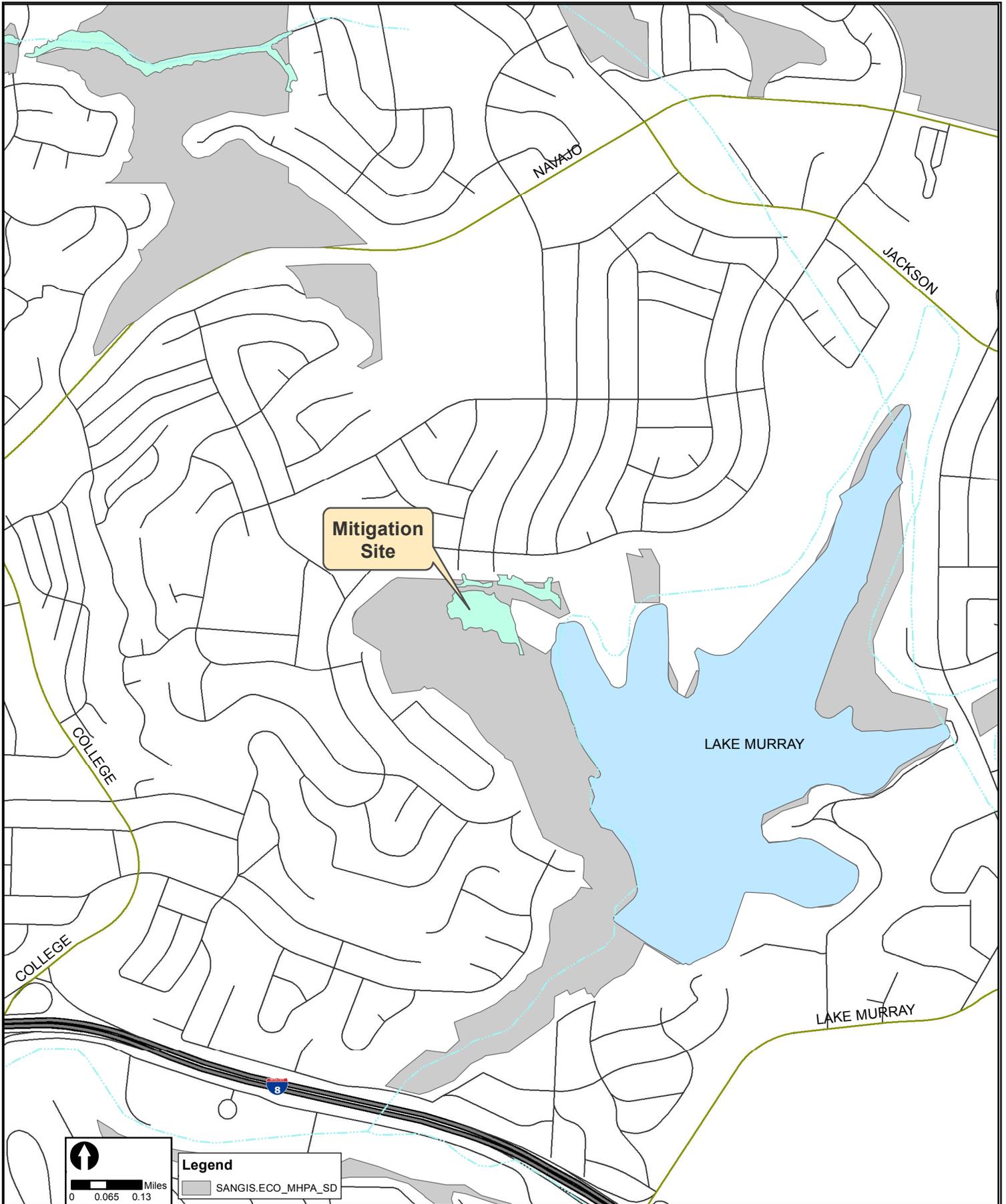
The Lake Murray Mitigation Project is in the City of San Diego’s Mission Trails Regional Park. It is located in the area just west of Lake Murray in the Del Cerro neighborhood of the Navajo Community (Figure 10).

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). Official sign-off was received from California Department of Fish and Game (CDFG) in March 2010 and from Army Corp of Engineers (ACOE) on December 7, 2011.

The annual assessment survey was conducted June 14, 2013 to assess the current condition of the mitigation site. Fifth year success criteria required an average combined cover of 90% for the upland restoration and wetland enhancement areas. The wetland enhancement area exceeds 100% cover throughout most of the defined enhancement site. The upland areas support 90% cover, with native cover representing 80% to 85% and non-native cover 5% to 10%. Wetlands have a thick overstory, composed of willows, Fremont cottonwood, and Western sycamore, ranging in height from 15 to 25 feet. Species found within the sage scrub include California sagebrush, lemonadeberry, buckwheat, laural sumac, coast prickly-pear, and white and black sage. Non-native annual grasses have started to encroach into the site from adjacent areas, creating patches of non-native grasslands along the edges of the site. A number of bird species were observed within the mitigation site, including the federally threatened coastal California gnatcatcher. Other bird species observed include: California quail, western scrub jay, California Towhee, lesser goldfinch, house finch, American kestrel, mourning dove, hooded oriole, Bewick’s wren, and American crow. Also, a number of California ground squirrel and desert cottontail were observed within the site.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Southern Willow Scrub	2.5	1.55	0.95
Diegan Coastal Sage Scrub	5.2	4.93	0.27





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**Lake Murray Mitigation Project
Vicinity Map
Figure10**

El Rancho Peñasquitos Wetland Enhancement Project

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 11).

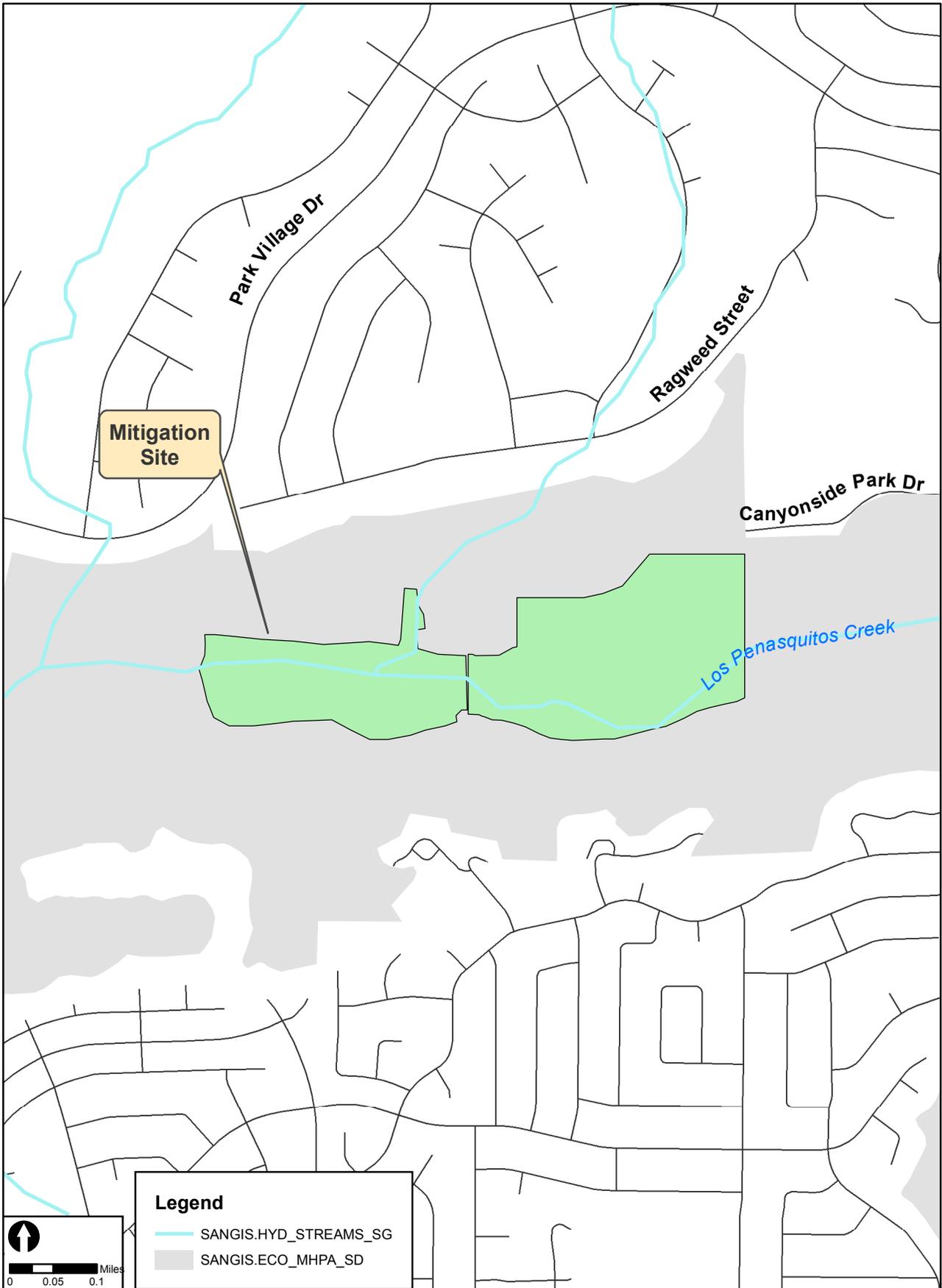
The El Rancho Peñasquitos Wetland Enhancement Mitigation Project includes enhancement of 5.53 acres of southern cottonwood willow riparian forest. Non-native plant species were treated during the maintenance period including Canary Island date palm, Mexican fan palm, Peruvian pepper tree (*Schinus molle*), Brazilian pepper tree, eucalyptus, edible fig (*Ficus carica*), and artichoke thistle (*Cynara cardunculus*).

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. During a site assessment in May 2013 a few non-native plants were observed within the project boundaries. Park and Recreation has taken over long term management of the site and manages the land consistent with the MSCP which includes targeting the treatment or removal of invasive exotics as part of routine park management.

Multiple species of birds were observed during the spring survey and included: great egret, mourning dove, acorn woodpecker, northern flicker, black phoebe, western scrub jay, American crow, western bluebird, wrenit, northern mocking bird, orange crowned warbler, common yellowthroat, spotted towhee, and California towhee.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Riparian Forest	5.53	3.75	1.78





Legend	
	SANGIS.HYD_STREAMS_SG
	SANGIS.ECO_MHPA_SD

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**El Rancho Penasquitos Mitigation
 Vicinity Map
 Figure 11**

Rancho Bernardo Mitigation Project

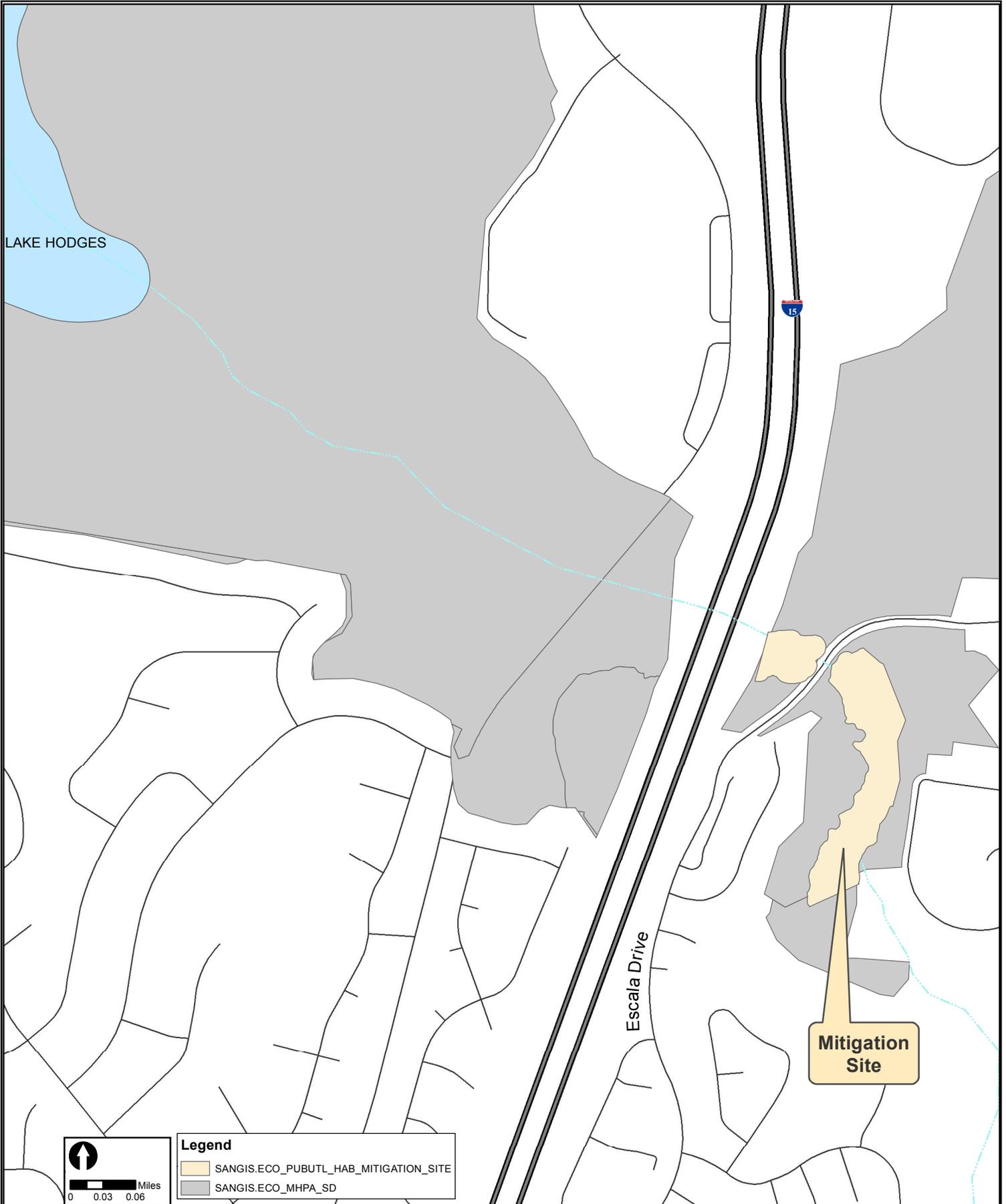
A conceptual mitigation plan has been prepared and approved by the Army Corps of Engineers and California Department of Fish and Wildlife. The project would be located east of I-15, west of Cotorro Road and south of Escala Drive in Rancho Bernardo Canyon (Figure 12).

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

Public Utilities has postponed the implementation of this project and will reassess mitigation needs for this watershed on an annual basis. It is expected that the SANDAG San Dieguito Wetland Mitigation Bank will be constructed and that credits will be purchased to satisfy wetland mitigation obligations for Public Utilities.



Rancho Bernardo Mitigation Project Site



Legend	
	SANGIS.ECO_PUBUTL_HAB_MITIGATION_SITE
	SANGIS.ECO_MHPA_SD

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**Rancho Bernardo Mitigation Project
Vicinity Map
Figure 12**

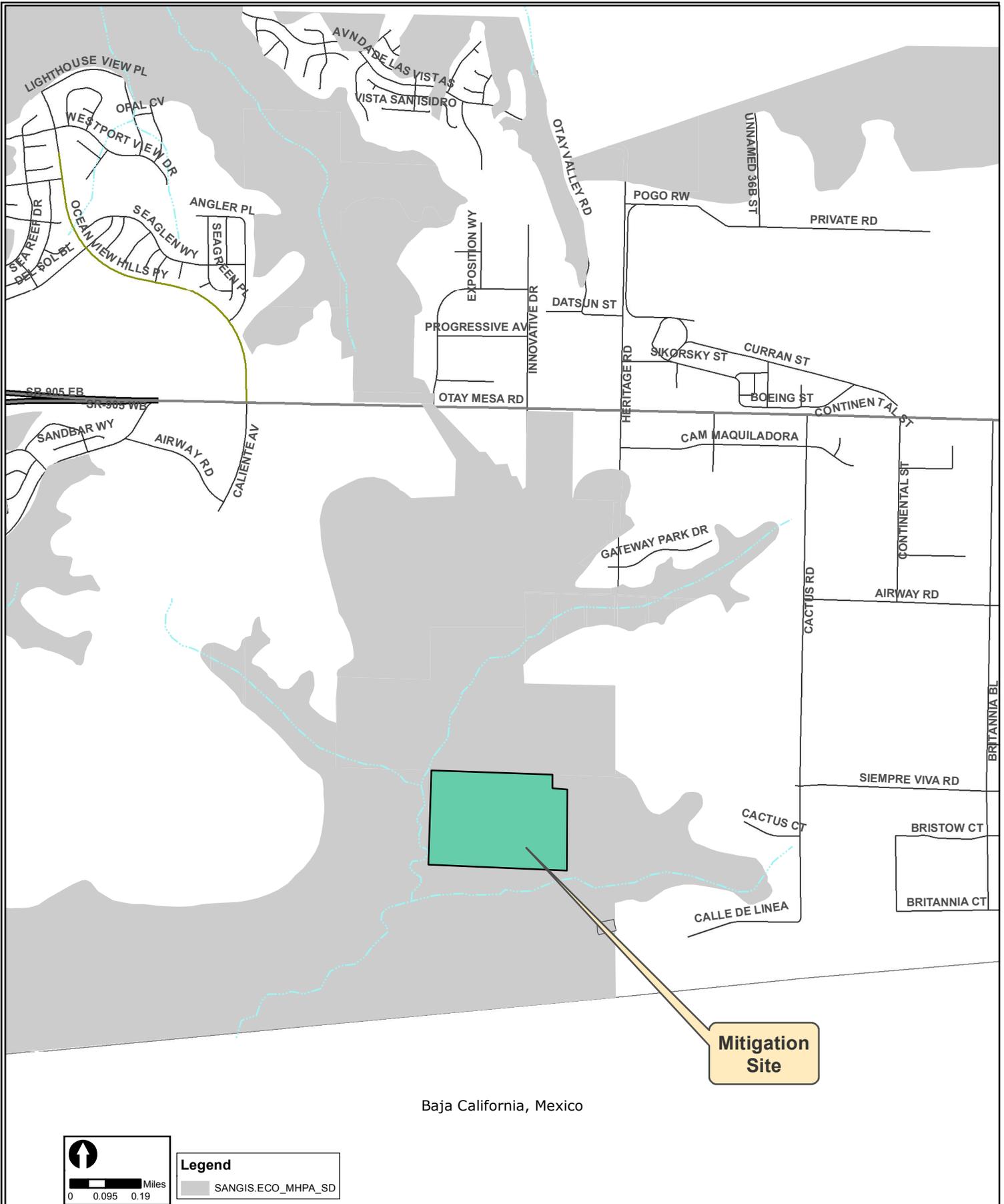
Otay Mesa Upland Mitigation Bank

The Otay Mesa Mitigation Bank is located in the Otay Mesa community of the City of San Diego and occurs within the Multi-Habitat Planning Area (MHPA). The mitigation site is located on undeveloped land that is surrounded by other City of San Diego Park and Recreation Open Space lands and federal land holdings along the U.S /Mexico border. Five habitat types are found onsite and include maritime succulent scrub, non-native grasslands, ruderal, disturbed habitat, and vernal pool. Sensitive plant species present onsite include the San Diego button-celery, snake cholla, San Diego barrel cactus, San Diego bur-sage, south coast saltbush, and San Diego county viguiera. Sensitive animal species observed onsite include the coastal California gnatcatcher (*Polioptila californica californica*), cactus wren (*Campylorhynchus brunneicapillus*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus cyaneus*), and black tailed jackrabbit (*Lepus californicus*).

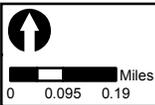
The site is in good condition with some of the unauthorized off-road trails being abandoned following the installation of signage. Some new trails were observed and appear to be due to motorcycles or quads. Protective fencing will be installed at critical locations this fall to help protect native habitat and keep vehicles on the existing roadways. The burrowing owl burrows constructed by Park and Recreation onsite are unoccupied and need maintenance as the entrances have been dug out by coyotes.

Mitigation Credits			
Habitat Type	Acres	Assigned	Balance
Maritime Succulent Scrub	45.43	33.93	11.50





Baja California, Mexico



Legend
 SANGIS.ECO_MHPA_SD

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**Otay Mesa Upland Mitigation Bank
 Vicinity Map
 Figure 13**

ATTACHMENT A –
25 MONTH REVEGETATION AND RESTORATION PROJECTS STATUS TABLE



**Canyon Restoration/Revegetation Projects (2009-2013)
July 2013**



Active Projects

Canyon/ Project	Reveg or Restoration*	Size (acre)	Start of 25 Months	Seeding Date	Planting Date	End of 25 Months	PM	Status
Rose (MH 476)	Reveg/Rest	<0.01	11/2008	11/2008	1/4/2012	Ongoing	Paver	Remedial maintenance being conducted by Merkel and Associates for an additional 25 months
Lexington Water Emergency (Water)	Restoration	0.03	1/2011	9/2010	1/2011	Ongoing	Balo	Remedial maintenance being conducted by Helix Construction until success criteria are met
Mission Center Canyon	Restoration	0.22	4/29/2011	10/1/2011	N/A	5/29/2014	Tran	Additional maintenance being conducted
Rose Sinkhole	Reveg/Rest	0.03	5/23/2011	5/3/ 2011	5/23/2011	6/23/2014	Paver	Additional maintenance being conducted until success criteria are met.
Dwane and Elaine	Restoration	0.02	6/29/2011	6/29/2011	N/A	7/29/2013	Smith	In 25 months Monitoring
Admiral Baker	Revegetation	<0.01	7/21/2011	7/21/2011	N/A	8/21/2013	Balo	25 months Monitoring
Dulzura Flume (Water)	Restoration	0.10	9/10/2011	5/12/2011	N/A	10/11/2013	Balo	In 25 Month Maintenance
Upas Street	Revegetation	0.04	9/29/2011	9/29/2011	N/A	10/29/2013	Smith	In 25 Month Monitoring
Mission Center B Crossings	Revegetation	0.17	9/15/2011	N/A	N/A	10/15/2013	Public Works	In 25 Month Maintenance
Hotel Circle South Emergency	Restoration	0.10	11/9/2011	7/26/2011	11/15/2011	12/9/2013	Paver	In 25 month maintenance period
Euclid and Menlo Restoration	Restoration	0.20	11/16/2011	9/10/2011	11/17/2011	12/16/2013	Smith	In 25 Month Maintenance
Keighley Street	Revegetation	<0.01	12/09/2011	N/A	N/A	1/09/2013	Domasco	25 Month Monitoring
Chollas/YMCA (Water)	Revegetation	0.01	1/18/2012	9/20/2011	1/18/2012	2/18/2014	Paver	In 25 Month Maintenance
Lakeside Ave Emergency (Water)	Revegetation	0.30	4/15/2012	4/9/2012	06/14/2012	07/14/2014	Paver	In 25 Month Maintenance
Alta View Water Emergency (Water)	Restoration	0.04	7/13/2012	7/13/2012	N/A	08/13/2014	Domasco	25 months Monitoring
Buchanan Canyon MH 31	Revegetation	0.03	9/2012	9/7/2012	N/A	10/2014	Domasco	25 months Monitoring
Imperial and Woodman	Revegetation	0.05	9/2012	N/A	N/A	10/2014	Domasco	25 months Monitoring
Casita Way Sewer Repairs	Restoration	<0.01	11/4/2012	11/14/2012	N/A	12/14/2014	Paver	25 Month Monitoring
Mission Ave Spot Repair	Revegetation	0.01	11/21/2012	11/21/2012	N/A	12/21/2014	Domasco	25 Month Monitoring
Manzanita/Lex Water Break (Water)	Restoration	0.10	11/29/2012	8/22/2012	11/29/2012	12/29/2014	Paver	25 Month Maintenance and Monitoring
Manzanita Sewer Emergency	Revegetation	0.02	11/29/2012	8/22/2012	N/A	12/29/2014	Paver	25 Month Monitoring
Middle Rose MH 160 and Lower MH9	Restoration	0.04	12/5/2012	11/30/2012	12/5/2012	1/5/2015	Van Every	Planted and maintained by Merkel. In 25 month maintenance period.
Stevenson MH 257 Emergency	Revegetation	0.08	12/6/2012	12/6/2012	N/A	1/6/2015	Paver	25 Month Monitoring
Nobel Drive Sewer Emergency	Restoration	0.01	2/25/2013	5/6/2013	N/A	3/25/2015	Paver	25 Month Monitoring
Fay Ave/Draper Street	Revegetation	<0.01	6/1/2013	N/A	N/A	7/1/2015	Domasco	25 Month Monitoring
Ocean Blvd	Restoration	0.01	2/15/2013	N/A	N/A	3/15/2015	Paver	25 Month Monitoring

Completed Projects				
Canyon/ Project	Revegetation or Restoration	Project Initiation	Project Completion	PM
East Tecolote	Restoration	11/24/2010	7/2013	White
Carmel Valley Rd (Water)	Revegetation	5/20/2011	7/2013	Balo
Central Tecolote MH 159	Revegetation	5/9/2011	7/2013	Balo
Plaza Ridge (Water)	Revegetation	1/19/2011	5/2013	Smith
33 rd and Maple	Revegetation	3/16/2011	5/2013	Smith
Lake Murray (Water)	Restoration	1/2011	3/2013	Balo
San Clemente Emergency	Revegetation	1/2011	3/2013	Balo
San Clemente MH 4 Access	Revegetation	2/2011	3/2013	Balo
Menlo and Redwood	Restoration	11/2010	3/2013	Smith
Rancho Mission Slope	Restoration	6/10/2010	10/2012	Balo
Lake Hodges	Restoration	7/1/2010	10/2012	Domasco
Oklahoma Street	Restoration	5/3/2010	8/2012	Domasco
Lopez MH 102	Restoration	5/2010	8/2012	Domasco
Valetta Street	Revegetation	5/3/2010	8/2012	Santos
PS 30	Restoration	4/20/2010	5/20/2012	Van Every
South Juniper	Reveg/Rest	11/2009	2/9/2012	Domasco
Tecolote MH 346	Restoration	9/2009	11/2011	Domasco
San Pasqual Pipe Repair	Erosion Control	4/5/2007	9/18/2011	Balo
7 th and Brookes	Reveg/Rest	11/2008	9/18/2011	Domasco
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

* Restoration refers to on-site vegetative remediation for impacted areas which are outside of the long-term maintenance access path. Revegetation refers to implementation of erosion control of long-term maintenance access paths using native seeds and plants and/or weeding. Restoration and erosion control are required by the PEIR and Master Site Development Permit. Although revegetation is one method of erosion control, other treatments such as an application of decomposed granite or wood fiber mulch may be implemented if preferred by the respective community. Alternative treatments may also be required by the Parks and Recreation Department for access paths and recreational trails which occur within City open space.

ATTACHMENT B –
MITIGATION SUMMARY TABLE



Mitigation Site Usage Report

Tuesday, September 03, 2013
11:38:47 AM

Mitigation Site Name	Mitigation Type	Site Size (Acres)	Acres Used	Balance (Acres)
Camino del Rio North - San Diego River Creation	Wetland Creation	3.43	2.1883	1.2417
Canyon View (Penasquitos Upland)	Upland Restoration	7.38	1.445	5.935
Central Tecolote Enhancement/Mitigation	Upland Restoration	3.05	1.174	1.876
Central Tecolote Enhancement/Mitigation	Wetland Enhancement	7.95	2.6356	5.3144
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	3.7548	1.7752
Lake Murray	Wetland Enhancement	2.5	1.556	0.944
Lake Murray	Upland Restoration	5.2	4.9276	0.2724
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	7.545	6.587	0.958
Otay Mesa Mitigation Bank	Upland Bank	13.24	1.745	11.495
Penasquitos Eucalyptus Removal	Wetland Enhancement	0.31	0.31	0
Rancho Mission Enhancement	Wetland Enhancement	8.74	2.1581	6.5819
Rose Canyon Wetland and Upland	Wetland Enhancement	0.35	0.35	0
Rose Canyon Wetland and Upland	Upland Restoration	5.14	3.148	1.992
Rose Canyon Wetland and Upland	Wetland Creation	5.31	3.4018	1.9082
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	1.61	1.464	0.146
Tecolote Canyon Wetland and Upland	Upland Restoration	3.37	2.9258	0.4442
TOTALS		92.625	49.656	42.969

ATTACHMENT C –
MITIGATION ASSIGNMENT SUMMARY TABLE



City of San Diego Public Utilities Department Mitigation Projects



Camino del Rio North - San Diego River Creation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
15 West and Elanus	Wetland Creation	SWS	0.05	Off-site in watershed	12/19/2003
32nd Street - Huckleberry LT	Wetland Creation	NVC	0.009	Off-site out of watershed	1/1/2010
32nd Street - Huckleberry LT	Wetland Creation	DWET	0.04	Off-site out of watershed	1/1/2010
54th & Maisel	Wetland Creation	FM	0.008	Off-site in watershed	7/2/2001
60th Street Pipe Relocation/Permanent Access	Wetland Creation	DWET	0.005	Off-site in watershed	
Alvarado Court Emergency Sewer Repair	Wetland Creation	SWS	0.016	Off-site in watershed	10/5/1998
Alvarado Court Emergency Sewer Repair	Wetland Creation	FM	0.08	Off-site in watershed	10/5/1998
Alvarado Court Sewer Crossing	Wetland Creation	SWS	0.005	Off-site in watershed	
Alvarado Court Sewer Crossing	Wetland Creation	NVC	0.002	Off-site in watershed	
Alvarado LT	Wetland Creation	DWET	0.01	Off-site in watershed	
Alvarado LT	Wetland Creation	MFS	0.01	Off-site in watershed	
Alvarado Trunk Sewer	Wetland Creation	DWET	0.022	Off-site in watershed	
Buchanan	Wetland Creation	SWS	0.0108	Off-site in watershed	3/11/2002
Buchanan	Wetland Creation	DWET	0.322	Off-site in watershed	3/11/2002
Buchanan Group Job 689	Wetland Creation	NVC	0.009	Off-site in watershed	
Buchanan LT	Wetland Creation	DWET	0.06	Off-site in watershed	1/1/2004
Chollas Dam Vegetation Removal	Wetland Creation	FM	0.055	Off-site out of watershed	
Chollas Exposed Water Main Repair	Wetland Creation	RS	0.014	Off-site out of watershed	8/30/2011
Dove Canyon Emergency Repair	Wetland Creation	NVC	0.001	Off-site in watershed	10/22/2010
Elanus & Murray Canyons (I-15 & Clairemont Mesa Bl	Wetland Creation	SWS	0.007	Off-site in watershed	12/11/2002

Camino del Rio North - San Diego River Creation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Elanus (I-15 & Clairemont Mesa Blvd) LT	Wetland Creation	EW	0.005	Off-site in watershed	
Euclid & Menlo (3343 Menlo Ave Spalsh Apron	Wetland Creation	NVC	0.004	Off-site out of watershed	3/8/2004
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Wetland Creation	DWET	0.08	Off-site out of watershed	2/1/2004
Federal & Chollas	Wetland Creation	DWET	0.0008	Off-site out of watershed	10/22/2002
Fox Canyon (University & 49th) Emergency Repair	Wetland Creation	NVC	0.002	Off-site out of watershed	10/29/2007
Hopkins	Wetland Creation	DWET	0.02	Off-site out of watershed	3/17/2004
Hopkins (Calle Abajo Emergency)	Wetland Creation	NVC	0.002	Off-site out of watershed	4/3/2002
Huckleberry (32nd St Canyon Emergency Maintenance)	Wetland Creation	DWET	0.04	Off-site out of watershed	7/21/2003
I-15 & Adams	Wetland Creation	EW	0.004	Off-site in watershed	5/6/2004
Junipero Serra (Jackson/Mission Gorge Emergency)	Wetland Creation	SWS	0.01	Off-site in watershed	11/13/2002
Junipero Serra (Mission Gorge Emergency Repair)	Wetland Creation	SWS	0.03	Off-site in watershed	12/11/2001
Junipero Serra (Superior Ready Mix Emergency Repai	Wetland Creation	SWS	0.3	Off-site in watershed	1/26/2002
Junipero Serra (Superior Ready Mix Emergency Repai	Wetland Creation	SCWRF	0.09	Off-site in watershed	1/26/2002
Lake Murray Emergency Cleaning	Wetland Creation	SWS	0.01	Off-site in watershed	12/1/2002
Lake Murray Trunk Sewer and Permanent Access Path	Wetland Creation	FM	0.07	Off-site in watershed	
Lake Murray Trunk Sewer and Permanent Access Path	Wetland Creation	SWS	0.2	Off-site in watershed	
Lexington Long-Term Access	Wetland Creation	NVC	0.08	Off-site out of watershed	
Market & Euclid (MH 88 Repair at Encanto Creek)	Wetland Creation	SWS	0.003	Off-site out of watershed	10/22/2009
Mission Center Canyon B	Wetland Creation	EW	0.02	Off-site in watershed	1/1/2011
Mission Center Canyon B	Wetland Creation	NVC	0.035	Off-site in watershed	1/1/2011
Mission Center Canyon B	Wetland Creation	DWET	0.014	Off-site in watershed	1/1/2011
Mission Center Canyon B	Wetland Creation	RS	0.025	Off-site in watershed	1/1/2011
Mission Center Canyon Emergency Sewer Repair	Wetland Creation	FM	0.023	Off-site in watershed	3/10/2010
Mission Center Canyon Emergency Sewer Repair	Wetland Creation	SWS	0.004	Off-site in watershed	3/10/2010

Camino del Rio North - San Diego River Creation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Mission Center Rd. (Kearny Mesa)	Wetland Creation	SWS	0.007	Off-site in watershed	1/13/2002
Murphy Canyon TS Access and Repair	Wetland Creation	FM	0.051	Off-site in watershed	
Norfolk (Fairmont & Montezuma)	Wetland Creation	SWS	0.003	Off-site in watershed	4/22/2002
Otay Valley TS Pipe Protection	Wetland Creation	SWS	0.001	Off-site out of watershed	
Otay Valley TS Pipe Protection	Wetland Creation	NVC	0.018	Off-site out of watershed	
Otay Valley TS Pipe Protection	Wetland Creation	MFS	0.004	Off-site out of watershed	
Presidio (Palm Cyn) GJ665	Wetland Creation	NVC	0.0137	Off-site in watershed	
Presidio (Palm Cyn) GJ665	Wetland Creation	RS	0.165	Off-site in watershed	
Rancho Mission (Mission Gorge Canyon, Conestoga Co	Wetland Creation	DWET	0.005	Off-site in watershed	2/7/2002
Rancho Mission LT	Wetland Creation	NVC	0.007	Off-site in watershed	
Rancho Mission LT	Wetland Creation	SWS	0.007	Off-site in watershed	
San Diego Mission Rd Emergency	Wetland Creation	FM	0.01	Off-site in watershed	7/9/2011
San Diego Mission Rd Emergency	Wetland Creation	SWS	0.01	Off-site in watershed	7/9/2011
Shepherd	Wetland Creation	SWS	0.01	Off-site in watershed	2/1/2003
Shepherd LT	Wetland Creation	RW	0.03	Off-site in watershed	
Shepherd LT	Wetland Creation	RS	0.02	Off-site in watershed	
Shepherd LT	Wetland Creation	DWET	0.015	Off-site in watershed	
Valencia Canyon Emergency Repair & Maintenance	Wetland Creation	MFS	0.004	Off-site out of watershed	1/25/2003
Total Mitigation Acres:			2.1883 acres		

Canyon View (Penasquitos Upland)

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
Lopez Canyon LT	Upland Restoration	DCSS	0.3	In-canyon	
Lopez Canyon LT	Upland Restoration	NNG	0.013	In-canyon	

Canyon View (Penasquitos Upland)

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Lopez Emergency Cleaning	Upland Restoration	NNG	0.05	In-canyon	2/13/2005
Lopez Emergency Cleaning	Upland Restoration	SMC	0.01	In-canyon	2/13/2005
Lopez Emergency Cleaning	Upland Restoration	SOC	0.02	In-canyon	2/13/2005
Lopez Emergency Cleaning	Upland Restoration	DCSS	0.51	In-canyon	2/13/2005
Lopez MH 102 Emergency	Upland Restoration	DCSS	0.022	In-canyon	12/18/2009
Penasquitos Views Trunk Sewer	Upland Restoration	DCSS	0.52	In-canyon	
Total Mitigation Acres:			1.445 acres		

Central Tecolote Enhancement/Mitigation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
East Tecolote Canyon Pipe Encasemt Protection Proj	Upland Restoration	CLOW	0.022	In-canyon	
East Tecolote Canyon Pipe Encasemt Protection Proj	Upland Restoration	NNG	0.02	In-canyon	
East Tecolote Canyon Pipe Encasemt Protection Proj	Upland Restoration	NG	0.002	In-canyon	
Tecolote LT	Upland Restoration	DCSS	0.77	In-canyon	
Tecolote LT	Upland Restoration	SMC	0.05	In-canyon	
Tecolote LT	Upland Restoration	MSS	0.02	In-canyon	
Tecolote LT	Upland Restoration	CLOW	0.06	In-canyon	
Tecolote LT	Upland Restoration	POS	0.09	In-canyon	
Tecolote LT	Upland Restoration	SOC	0.14	In-canyon	
Total Mitigation Acres:			1.174 acres		

wetland

East Tecolote (East Clairemont)	Wetland Enhancement	SWS	0.0001	In-canyon	1/8/2002
East Tecolote (East Clairemont)	Wetland Enhancement	SRF	0.008	In-canyon	1/8/2002
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Enhancement	SWS	0.036	In-canyon	

Central Tecolote Enhancement/Mitigation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Enhancement	OW	0.023	In-canyon	
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Enhancement	SRF	0.06	In-canyon	
East Tecolote Emergency MH 218	Wetland Enhancement	SRF	0.096	In-canyon	2/8/2010
East Tecolote Manholes 223 and 224 Emergency	Wetland Enhancement	FM	0.039	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Enhancement	OW	0.015	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Enhancement	SRF	0.068	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Enhancement	SWS	0.033	In-canyon	12/16/2009
Park Mesa Way	Wetland Enhancement	SWS	0.15	In-canyon	1/13/2000
Tecolote (including Mt. Elbrus)	Wetland Enhancement	SWS	0.13	In-canyon	11/18/2002
Tecolote (including Mt. Elbrus)	Wetland Enhancement	SCLORF	0.4	In-canyon	11/18/2002
Tecolote Emergency Pipe Repair (Crossing)	Wetland Enhancement	SWS	0.008	In-canyon	12/13/2004
Tecolote Emergency Pipe Repair (Crossing)	Wetland Enhancement	SCLORF	0.004	In-canyon	12/13/2004
Tecolote Emergency Pipe Repair (Crossing)	Wetland Enhancement	EW	0.002	In-canyon	12/13/2004
Tecolote LT	Wetland Enhancement	MFS	0.01	In-canyon	
Tecolote LT	Wetland Enhancement	NVC	0.02	In-canyon	
Tecolote LT	Wetland Enhancement	SWS	0.03	In-canyon	
Tecolote LT	Wetland Enhancement	SRF	1.4	In-canyon	
Tecolote MH 101 Emergency	Wetland Enhancement	MFS	0.0005	In-canyon	4/5/2010
Tecolote Mt. Ashmun Pipe Protection Emergency	Wetland Enhancement	NVC	0.007	In-canyon	1/17/2008
Tecolote Mt. Ashmun Pipe Protection Emergency	Wetland Enhancement	NVC	0.001	In-canyon	1/17/2008
Tecolote Mt. Ashmun Pipe Protection Emergency	Wetland Enhancement	RF	0.02	In-canyon	1/17/2008
Tecolote Mt. Ashmun Pipe Protection Erosion Contro	Wetland Enhancement	SWS	0.001	In-canyon	9/9/2009
Tecolote Mt. Ashmun Pipe Protection Erosion Contro	Wetland Enhancement	RF	0.004	In-canyon	9/9/2009
Tecolote Pipe Repair Near Manhole 346	Wetland Enhancement	SRF	0.07	In-canyon	8/17/2009

Central Tecolote Enhancement/Mitigation

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Total Mitigation Acres:		2.6356 acres			

El Cuervo Norte

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
Acuna	Wetland Creation	SWS	0.08	Off-site in watershed	3/11/2002
Acuna	Wetland Enhancement	DWET	0.04	Off-site in watershed	3/11/2002
Acuna	Wetland Creation	MFS	0.002	Off-site in watershed	3/11/2002
Acuna	Wetland Enhancement	MFS	0.002	Off-site in watershed	3/11/2002
Acuna	Wetland Enhancement	SWS	0.08	Off-site in watershed	3/11/2002
Acuna	Wetland Creation	DWET	0.04	Off-site in watershed	3/11/2002
Acuna Street Emergency	Wetland Enhancement	SWS	0.04	Off-site in watershed	7/6/1998
Acuna Street Emergency	Wetland Creation	SWS	0.04	Off-site in watershed	7/6/1998
Penasquitos Bluffs (Finger Canyon Emergency)	Wetland Creation	CVFM	0.06	Off-site in watershed	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Wetland Enhancement	CVFM	0.06	In-canyon	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Wetland Creation	SWS	0.02	Off-site in watershed	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Wetland Enhancement	SWS	0.02	In-canyon	11/1/2000
San Clemente (Emergency Repairs Combined)	Wetland Enhancement	MFS	0.02	Off-site in watershed	9/1/2001
San Clemente (Emergency Repairs Combined)	Wetland Enhancement	RW	0.104	Off-site in watershed	9/1/2001
San Clemente (Emergency Repairs Combined)	Wetland Creation	SWS	0.003	Off-site in watershed	9/1/2001
San Clemente (Emergency Repairs Combined)	Wetland Enhancement	SWS	0.003	Off-site in watershed	9/1/2001
San Clemente (Emergency Repairs Combined)	Wetland Creation	MFS	0.02	Off-site in watershed	9/1/2001
San Clemente (Emergency Repairs Combined)	Wetland Creation	RW	0.052	Off-site in watershed	9/1/2001
Stevenson	Wetland Creation	MFS	0.02	Off-site in watershed	8/8/2001
Stevenson	Wetland Enhancement	SWS	0.28	Off-site in watershed	8/8/2001

El Cuervo Norte

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Stevenson	Wetland Creation	SWS	0.28	Off-site in watershed	8/8/2001
Stevenson	Wetland Enhancement	MFS	0.02	Off-site in watershed	8/8/2001
Torreyana Sewer Repair	Wetland Creation	NVC	0.02	Off-site in watershed	10/1/2001
Total Mitigation Acres:			1.306 acres		

El Rancho (Penasquitos Enhancement)

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
Acuna LT	Wetland Enhancement	DWET	0.01	Off-site in watershed	2/1/2005
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	SWS	0.064	Off-site in watershed	
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	MFS	0.022	Off-site in watershed	
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	SCLORF	0.006	Off-site in watershed	
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	NVC	0.014	Off-site in watershed	
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	DWET	0.107	Off-site in watershed	
Balboa Terrace Trunk Sewer Replacement	Wetland Enhancement	FM	0.04	Off-site in watershed	
Black Mountain Road Finger Canyon	Wetland Enhancement	FM	0.006	In-canyon	4/4/2003
Carmel Valley Rd Emergency Water Break	Wetland Enhancement	RS	0.052	Off-site in watershed	10/22/2010
Carmel Valley Rd Emergency Water Break	Wetland Enhancement	SWS	0.016	Off-site in watershed	10/22/2010
Carroll and Mesa Rim	Wetland Enhancement	SCLORF	0.2	Off-site in watershed	6/2/2003
Carroll and Mesa Rim	Wetland Enhancement	SWS	0.15	Off-site in watershed	6/2/2003
Carroll Canyon Emergency Sewer Repair	Wetland Enhancement	SAWRF	0.06	Off-site in watershed	2/26/2010
Carroll Canyon Emergency Sewer Repair	Wetland Enhancement	NVC	0.04	Off-site in watershed	2/26/2010
Gesner/Huron	Wetland Enhancement	RW	0.11	Off-site in watershed	8/1/1998
I-5/SR-52 Maintenance Project	Wetland Enhancement	SWS	0.03	Off-site in watershed	
Lopez Canyon LT	Wetland Enhancement	SWS	0.03	In-canyon	

El Rancho (Penasquitos Enhancement)

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Lopez Canyon LT	Wetland Enhancement	NVC	0.01	In-canyon	
Lopez Canyon LT	Wetland Enhancement	AM	0.3	In-canyon	
Lopez Canyon LT	Wetland Enhancement	RW	0.01	In-canyon	
Lopez Emergency Cleaning	Wetland Enhancement	EW	0.001	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Enhancement	RF	0.008	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Enhancement	SWS	0.08	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Enhancement	MFS	0.04	In-canyon	2/13/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Enhancement	SWS	0.32	Off-site in watershed	2/8/2005
Middle Rose Cyn MH 160 Emergency	Wetland Enhancement	SWS	0.02	Off-site in watershed	11/17/2011
Monte Verde Sewer Improvements	Wetland Enhancement	SRF	0.08	Off-site in watershed	1/1/2010
Old Rose Canyon Sewer Relocation Project	Wetland Enhancement	FM	0.002	Off-site in watershed	
Old Rose Canyon Sewer Relocation Project	Wetland Enhancement	SWS	0.04	Off-site in watershed	
Old Rose Canyon Sewer Relocation Project	Wetland Enhancement	MFS	0.007	Off-site in watershed	
Park Mesa LT	Wetland Enhancement	SWS	0.035	Off-site in watershed	1/11/2011
Penasquitos Bluffs LT	Wetland Enhancement	FM	0.014	Off-site in watershed	
Penasquitos Bluffs LT	Wetland Enhancement	SWS	0.01	Off-site in watershed	
Penasquitos Bluffs LT	Wetland Enhancement	AM	0.014	Off-site in watershed	
Penasquitos Preserve (East of Black Mountain Road)	Wetland Enhancement	SCWRF	0.18	In-canyon	10/16/2003
Penasquitos Preserve LT	Wetland Enhancement	RW	0.012	In-canyon	
Penasquitos Preserve LT	Wetland Enhancement	SCWRF	0.24	In-canyon	
Penasquitos Preserve LT	Wetland Enhancement	NVC	0.005	In-canyon	
Penasquitos Preserve LT	Wetland Enhancement	SCLORF	0.106	In-canyon	
Penasquitos Preserve LT	Wetland Enhancement	MFS	0.032	In-canyon	
Penasquitos Preserve LT	Wetland Enhancement	FM	0.045	In-canyon	

El Rancho (Penasquitos Enhancement)

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Penasquitos View Emergency	Wetland Enhancement	CAM	0.002	In-canyon	8/18/2004
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Enhancement	MFS	0.03	Off-site in watershed	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Enhancement	RW	0.04	Off-site in watershed	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Enhancement	NVC	0.0018	Off-site in watershed	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Enhancement	SWS	0.03	Off-site in watershed	9/1/2001
San Clemente Emergency Sewer Encasement Repair	Wetland Enhancement	SCLORF	0.04	Off-site in watershed	12/13/2010
Stevenson Long Term Access Project	Wetland Enhancement	MFS	0.085	Off-site in watershed	
Stevenson Long Term Access Project	Wetland Enhancement	SWS	0.028	Off-site in watershed	
Stevenson Long Term Access Project	Wetland Enhancement	NVC	0.028	Off-site in watershed	
Van Nuys Canyon Emergency Sewer Repair Project	Wetland Enhancement	NVC	0.02	Off-site in watershed	12/31/2004
Van Nuys Canyon MH # 91 Sewer Blockage	Wetland Enhancement	NVC	0.13	Off-site in watershed	12/4/1996
Van Nuys Canyon MH # 91 Sewer Blockage	Wetland Enhancement	MFS	0.29	Off-site in watershed	12/4/1996
Van Nuys Canyon MHs 113, 114 and 93	Wetland Enhancement	NVC	0.003	Off-site in watershed	12/15/2003
Van Nuys Installation of 2 36-inch Pipe Culverts	Wetland Enhancement	SWS	0.03	Off-site in watershed	2/7/2001
Van Nuys MH #114 Sewage Leak Investigation	Wetland Enhancement	NVC	0.003	Off-site in watershed	4/4/2002
Van Nuys MH #124 Sewer Leak	Wetland Enhancement	NVC	0.03	Off-site in watershed	2/10/1998
Van Nuys MH #92-76 Four Sewer Breaks (Upper Canyon	Wetland Enhancement	DWET	0.25	Off-site in watershed	8/4/2000
Van Nuys MH #92-76 Four Sewer Breaks (Upper Canyon	Wetland Enhancement	MFS	0.146	Off-site in watershed	8/4/2000
Total Mitigation Acres:			3.7548 acres		

Lake Murray

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
32nd Street - Huckleberry LT	Upland Restoration	NNG	0.009	Off-site out of watershed	1/1/2010
Alvarado Court Emergency Sewer Repair	Upland Restoration	DCSS	0.29	Off-site in watershed	10/5/1998

Lake Murray

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Alvarado TS MH 459 and 458 Maintenance	Upland Restoration	DCSS	0.005	Off-site in watershed	5/1/2013
Cardinal Drive Sewer Emergency	Upland Restoration	DCSS	0.0016	Off-site in watershed	12/14/2012
Florida Canyon	Upland Restoration	DCSS	0.01	Off-site out of watershed	2/28/2004
Huckleberry (32nd & Beech)	Upland Restoration	DCSS	0.009	Off-site out of watershed	7/17/2001
Huckleberry (32nd & Beech)	Upland Restoration	NNG	0.023	Off-site out of watershed	7/17/2001
Huckleberry (32nd St Canyon Emergency Maintenance)	Upland Restoration	NNG	0.03	Combination	7/21/2003
Hwy 163 (7th and Brookes 2004 Emergency Maint)	Upland Restoration	NNG	0.035	Off-site in watershed	5/28/2004
Hwy 163 Corridor (7th & Brookes 2002 Emergency Repa	Upland Restoration	NNG	0.015	Off-site in watershed	11/30/2002
Junipero Serra (Jackson/Mission Gorge Emergency)	Upland Restoration	DCSS	0.06	Off-site in watershed	11/13/2002
Lake Murray Emergency Cleaning	Upland Restoration	DCSS	0.64	In-canyon	12/1/2002
Lake Murray Emergency Cleaning	Upland Restoration	NNG	0.1	In-canyon	12/1/2002
Lake Murray Trunk Sewer and Permanent Access Path	Upland Restoration	BBS	0.33	In-canyon	
Lake Murray Trunk Sewer and Permanent Access Path	Upland Restoration	NNG	0.05	In-canyon	
Lake Murray Trunk Sewer and Permanent Access Path	Upland Restoration	DCSS	3.32	In-canyon	

Total Mitigation Acres: 4.9276 acres

wetland

32nd Street - Huckleberry LT	Wetland Enhancement	DWET	0.04	Off-site in watershed	1/1/2010
54th & Maisel	Wetland Enhancement	FM	0.008	Off-site in watershed	7/2/2001
60th Street Pipe Relocation/Permanent Access	Wetland Enhancement	DWET	0.005	Off-site in watershed	
Alvarado Court Emergency Sewer Repair	Wetland Enhancement	NVC	0.03	Off-site in watershed	10/5/1998
Alvarado Court Emergency Sewer Repair	Wetland Enhancement	FM	0.08	Off-site in watershed	10/5/1998
Alvarado Court Emergency Sewer Repair	Wetland Enhancement	SWS	0.016	Off-site in watershed	10/5/1998
Chocolate Combined	Wetland Enhancement	NVC	0.008	Off-site out of watershed	8/1/2000
Huckleberry (32nd & Beech)	Wetland Enhancement	NVC	0.005	Off-site out of watershed	7/17/2001

Lake Murray

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Huckleberry (32nd & Beech)	Wetland Enhancement	DWET	0.007	Off-site out of watershed	7/17/2001
Hwy 163 Corridor (7th & Brookes 2002Emergency Repa	Wetland Enhancement	NVC	0.02	Off-site in watershed	11/30/2002
Junipero Serra (Jackson/Mission Gorge Emergency)	Wetland Enhancement	SWS	0.01	Off-site in watershed	11/13/2002
Junipero Serra (Mission Gorge Emergency Repair)	Wetland Enhancement	SWS	0.03	Off-site in watershed	12/11/2001
Junipero Serra (Superior Ready Mix Emergency Repai	Wetland Enhancement	NVC	0.04	Off-site in watershed	1/26/2002
Junipero Serra (Superior Ready Mix Emergency Repai	Wetland Enhancement	SWS	0.6	Off-site in watershed	1/26/2002
Junipero Serra (Superior Ready Mix Emergency Repai	Wetland Enhancement	SCWRF	0.18	Off-site in watershed	1/26/2002
Lake Murray Emergency Cleaning	Wetland Enhancement	NVC	0.01	In-canyon	12/1/2002
Lake Murray Emergency Cleaning	Wetland Enhancement	SWS	0.01	In-canyon	12/1/2002
Lake Murray Trunk Sewer and Permanent Access Path	Wetland Enhancement	FM	0.07	In-canyon	
Lake Murray Trunk Sewer and Permanent Access Path	Wetland Enhancement	NVC	0.01	In-canyon	
Lake Murray Trunk Sewer and Permanent Access Path	Wetland Enhancement	SWS	0.32	In-canyon	
Mission Center Rd. (Kearny Mesa)	Wetland Enhancement	SWS	0.007	Off-site in watershed	1/13/2002
Switzer Canyon Emergency Sewer Repair Project	Wetland Enhancement	NVC	0.05	Off-site out of watershed	2/27/2002
Total Mitigation Acres:			1.556 acres		

Los Penasquitos North

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
Los Penasquitos North Wetland Creation Project	Upland Restoration	DCSS	0.82	On-impact	
Torreyana Sewer Repair	Upland Restoration	DCSS	0.21	Off-site in watershed	10/1/2001
Total Mitigation Acres:			1.03 acres		
wetland					
Acuna LT	Wetland Creation	DWET	0.01	Off-site in watershed	2/1/2005
Black Mountain Road Finger Canyon	Wetland Creation	FM	0.006	In-canyon	4/4/2003

Los Penasquitos North

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Carmel Valley Rd Emergency Water Break	Wetland Creation	SWS	0.008	Off-site in watershed	10/22/2010
Carmel Valley Rd Emergency Water Break	Wetland Creation	RS	0.026	Off-site in watershed	10/22/2010
Carroll and Mesa Rim	Wetland Creation	RW	0.72	Off-site in watershed	6/2/2003
Carroll and Mesa Rim	Wetland Creation	SCLORF	0.1	Off-site in watershed	6/2/2003
Carroll and Mesa Rim	Wetland Creation	MFS	0.44	Off-site in watershed	6/2/2003
Carroll and Mesa Rim	Wetland Creation	SWS	0.15	Off-site in watershed	6/2/2003
Lopez Canyon LT	Wetland Creation	SWS	0.03	In-canyon	
Lopez Canyon LT	Wetland Creation	AM	0.1	In-canyon	
Lopez Canyon LT	Wetland Creation	RW	0.005	In-canyon	
Lopez Canyon LT	Wetland Creation	NVC	0.01	In-canyon	
Lopez Canyon Manhole 102 Maintenance	Wetland Creation	NVC	0.001	In-canyon	8/18/2005
Lopez Emergency Cleaning	Wetland Creation	SWS	0.08	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Creation	RF	0.004	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Creation	EW	0.001	In-canyon	2/13/2005
Lopez Emergency Cleaning	Wetland Creation	MFS	0.04	In-canyon	2/13/2005
Lopez MH 102 Emergency	Wetland Creation	NVC	0.003	In-canyon	12/18/2009
Lower Rose Creek Emergency Maintenance	Wetland Creation	RW	0.52	Off-site in watershed	2/20/2004
Lower Rose Creek Emergency Maintenance	Wetland Creation	FM	0.03	Off-site in watershed	2/20/2004
Lower Rose Creek Emergency Maintenance	Wetland Creation	MFS	0.05	Off-site in watershed	2/20/2004
Lower Rose Creek Emergency Maintenance	Wetland Creation	SWS	0.21	Off-site in watershed	2/20/2004
Park Mesa LT	Wetland Creation	SWS	0.035	Off-site in watershed	1/11/2011
Park Mesa LT	Wetland Creation	NVC	0.006	Off-site in watershed	1/11/2011
Penasquitos Preserve (East of Black Mountain Road)	Wetland Creation	SCWRF	0.09	In-canyon	10/16/2003
Penasquitos Preserve LT	Wetland Creation	MFS	0.008	In-canyon	

Los Penasquitos North

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Penasquitos Preserve LT	Wetland Creation	SCLORF	0.053	In-canyon	
Penasquitos Preserve LT	Wetland Creation	RW	0.006	In-canyon	
Penasquitos Preserve LT	Wetland Creation	SCWRF	0.12	In-canyon	
Penasquitos Preserve LT	Wetland Creation	FM	0.045	In-canyon	
Penasquitos View Emergency	Wetland Creation	CAM	0.002	In-canyon	8/18/2004
Penasquitos Views Trunk Sewer	Wetland Creation	SWS	0.192	In-canyon	
Van Nuys Canyon MH # 91 Sewer Blockage	Wetland Creation	MFS	0.07	Off-site in watershed	12/4/1996
Van Nuys Installation of 2 36-inch Pipe Culverts	Wetland Creation	SWS	0.03	Off-site in watershed	2/7/2001
Van Nuys MH #92-76 Four Sewer Breaks (Upper Canyon	Wetland Creation	MFS	0.146	Off-site in watershed	8/4/2000
Van Nuys MH #92-76 Four Sewer Breaks (Upper Canyon	Wetland Creation	DWET	0.25	Off-site in watershed	8/4/2000
Total Mitigation Acres:			3.597 acres		

Marron Valley Cornerstone Lands Conservation Bank

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
45th & Boston	Upland Bank	NNG	0.07	Off-site out of watershed	12/13/2002
54th & Maisel	Upland Bank	DCSS	0.04	Off-site out of watershed	7/2/2001
60th Street Pipe Relocation/Permanent Access	Upland Bank	NNG	0.024	Off-site out of watershed	
60th Street Pipe Relocation/Permanent Access	Upland Bank	DCSS	0.095	Off-site out of watershed	
Alvarado LT	Upland Bank	SMC	0.01	Off-site out of watershed	
Alvarado LT	Upland Bank	DCSS	0.07	Off-site out of watershed	
Alvarado LT	Upland Bank	CC	0.04	Off-site out of watershed	
Balboa Terrace Trunk Sewer Replacement	Upland Bank	DCSS	0.354	Off-site out of watershed	
Buchanan	Upland Bank	SMC	0.12	Off-site out of watershed	3/11/2002
Buchanan	Upland Bank	POS	0.13	Off-site out of watershed	3/11/2002

Marron Valley Cornerstone Lands Conservation Bank

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Buchanan	Upland Bank	DCSS	0.04	Off-site out of watershed	3/11/2002
Buchanan (10th & Johnson Ave. Emergency Repair)	Upland Bank	DCSS	0.13	Off-site out of watershed	9/6/2002
Buchanan (Highway 163 & Lincoln Street Emergency)	Upland Bank	DCSS	0.018	Off-site out of watershed	4/11/2003
Buchanan (Highway 163 & Lincoln Street Emergency)	Upland Bank	SMC	0.054	Off-site out of watershed	4/11/2003
Buchanan LT	Upland Bank	SMC	0.043	Off-site out of watershed	1/1/2004
Buchanan LT	Upland Bank	POS	0.026	Off-site out of watershed	1/1/2004
Buchanan/Caminito Fuente	Upland Bank	DCSS	0.02	Off-site out of watershed	9/15/2004
Dakota Canyon Replacement/Relocation/Access	Upland Bank	DCSS	0.57	Off-site out of watershed	1/22/2008
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Upland Bank	NNG	0.05	Off-site out of watershed	2/1/2004
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Upland Bank	DCSS	0.01	Off-site out of watershed	2/1/2004
Hwy 163 North LT	Upland Bank	NNG	0.19	Off-site out of watershed	
I-805 & 94 Canyon (40th & C Emergency Repair)	Upland Bank	SMC	0.016	Off-site out of watershed	2/6/2003
I-805 & 94 Canyon (40th & C Emergency Repair)	Upland Bank	NNG	0.011	Off-site out of watershed	2/6/2003
Lexington (Central & Redwood Emergency)	Upland Bank	SMC	0.002	Off-site out of watershed	1/1/1999
Lexington (Central & Redwood Emergency)	Upland Bank	NNG	0.14	Off-site out of watershed	1/1/1999
Lexington/Manzanita Pipe and MH Replacement Emer	Upland Bank	SMC	0.059	Off-site out of watershed	11/4/2008
Mission Center LT	Upland Bank	SMC	0.04	Off-site in watershed	7/1/2004
Mission Center LT	Upland Bank	DCSS	0.14	Off-site out of watershed	7/1/2004
Norfolk (Fairmont & Montezuma)	Upland Bank	BBS	0.06	Off-site out of watershed	4/22/2002
Norfolk (Fairmont & Montezuma)	Upland Bank	POS	0.151	Off-site out of watershed	4/22/2002
Norfolk (Fairmont & Montezuma)	Upland Bank	DCSS	0.398	Off-site out of watershed	4/22/2002
Norfolk (Fairmont & Montezuma)	Upland Bank	SMC	0.106	Off-site out of watershed	4/22/2002
Norfolk Canyon Maintenance Project	Upland Bank	SMC	0.002	Off-site out of watershed	6/10/2004
Norfolk Canyon Maintenance Project	Upland Bank	DCSS	0.302	Off-site out of watershed	6/10/2004

Marron Valley Cornerstone Lands Conservation Bank

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Norfolk LT	Upland Bank	SMC	0.02	Off-site out of watershed	7/1/2004
Otay Valley TS Pipe Protection	Upland Bank	NNG	0.025	Off-site out of watershed	
Otay Valley TS Pipe Protection	Upland Bank	DCSS	0.03	Off-site out of watershed	
Pump Station 77 Inspections	Upland Bank	DCSS	0.544	Off-site out of watershed	
Rancho Bernardo 15 East	Upland Bank	DCSS	0.31	Off-site out of watershed	3/17/2004
Rancho Bernardo 15 East (Escala Emergency)	Upland Bank	DCSS	0.1	Off-site out of watershed	8/24/2007
Rancho Mission LT	Upland Bank	DCSS	0.007	Off-site out of watershed	
Shepherd	Upland Bank	DCSS	0.01	Off-site out of watershed	2/1/2003
Shepherd LT	Upland Bank	NNG	0.09	Off-site in watershed	
Stevenson	Upland Bank	POS	0.04	Off-site out of watershed	8/8/2001
Stevenson	Upland Bank	DCSS	0.14	Off-site out of watershed	8/8/2001
Stevenson Canyon Manhole 138 Emergency	Upland Bank	NNG	0.18	Off-site out of watershed	3/23/2006
Stevenson Long Term Access Project	Upland Bank	NNG	0.28	Off-site out of watershed	
Trinidad & Euclid	Upland Bank	SMC	0.13	Off-site out of watershed	5/9/2001
USIU	Upland Bank	DCSS	0.2	Off-site out of watershed	
USIU	Upland Bank	NNG	0.75	Off-site out of watershed	
USIU	Upland Bank	SMC	0.2	Off-site out of watershed	

Total Mitigation Acres: 6.587 acres

Otay Mesa Mitigation Bank

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
15 West and Elanus	Upland Bank	DCSS	0.2	Off-site out of watershed	12/19/2003
Acuna	Upland Bank	DCSS	0.01	Off-site out of watershed	3/11/2002
Acuna	Upland Bank	SMC	0.07	Off-site out of watershed	3/11/2002

Otay Mesa Mitigation Bank

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Auburn & Belle Island (Isla Vista/Auburn Dr. Emerg	Upland Bank	DCSS	0.06	Off-site out of watershed	10/21/2002
Bounty & Waring (Bounty & Spear Emergency Repair)	Upland Bank	DCSS	0.2	Off-site out of watershed	4/29/2003
Elanus & Murray Canyons (I-15 & Clairemont Mesa Bl	Upland Bank	DCSS	0.122	Off-site out of watershed	12/11/2002
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Upland Bank	SMRC	0.05	Off-site out of watershed	2/1/2004
Euclid & Menlo Canyon (47th & Thorn Emergency Repa	Upland Bank	SMRC	0.02	Off-site out of watershed	4/29/2002
Fairmont & Home	Upland Bank	SMRC	0.11	Off-site out of watershed	4/9/2004
Fairmont & Home	Upland Bank	NNG	0.25	Off-site out of watershed	4/9/2004
Hopkins	Upland Bank	NNG	0.14	Off-site out of watershed	3/17/2004
Hopkins (Calle Abajo Emergency)	Upland Bank	NNG	0.09	Off-site out of watershed	4/3/2002
Hwy 163 North LT	Upland Bank	CLOW	0.04	Off-site out of watershed	
Norfolk (Fairmont & Montezuma)	Upland Bank	SOC	0.046	Off-site out of watershed	4/22/2002
Rancho Bernardo 15 East	Upland Bank	DCSS	0.31	Off-site out of watershed	3/17/2004
Rancho Mission LT	Upland Bank	DCSS	0.026	Off-site out of watershed	
South Juniper Emergency Project	Upland Bank	DCSS	0.001	Off-site out of watershed	5/14/2006
Total Mitigation Acres:			1.745 acres		

Penasquitos Eucalyptus Removal

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
Carroll and Mesa Rim	Wetland Enhancement	RW	0.31	Off-site in watershed	6/2/2003
Total Mitigation Acres:			0.31 acres		

Rancho Mission Enhancement

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
15 West and Elanus	Wetland Enhancement	SWS	0.05	Off-site in watershed	12/19/2003

Rancho Mission Enhancement

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Alvarado Court Sewer Crossing	Wetland Enhancement	SWS	0.005	Off-site in watershed	
Alvarado LT	Wetland Enhancement	MFS	0.01	Off-site in watershed	
Alvarado LT	Wetland Enhancement	DWET	0.01	Off-site in watershed	
Alvarado LT	Wetland Enhancement	NVC	0.01	Off-site in watershed	
Alvarado Trunk Sewer	Wetland Enhancement	DWET	0.022	Off-site in watershed	
Barr Avenue (Hotel Circle) part of Dove Canyon	Wetland Enhancement	NVC	0.01	Off-site in watershed	8/16/2003
Bay View Emergency Response Project	Wetland Enhancement	NVC	0.013	Off-site out of watershed	8/20/2004
Buchanan	Wetland Enhancement	DWET	0.322	Off-site in watershed	3/11/2002
Buchanan	Wetland Enhancement	SWS	0.0108	Off-site in watershed	3/11/2002
Buchanan B	Wetland Enhancement	NVC	0.02	Off-site in watershed	
Buchanan LT	Wetland Enhancement	DWET	0.06	Off-site in watershed	1/1/2004
Buchanan LT	Wetland Enhancement	NVC	0.624	Off-site in watershed	1/1/2004
Chollas Dam Vegetation Removal	Wetland Enhancement	FM	0.055	Off-site out of watershed	
Chollas Exposed Water Main Repair	Wetland Enhancement	RS	0.014	Off-site out of watershed	8/30/2011
Delevan & I-15 Emerg Repair (South Juniper Canyon)	Wetland Enhancement	NVC	0.03	Off-site out of watershed	7/27/2005
Elanus & Murray Canyons (I-15 & Clairemont Mesa Bl	Wetland Enhancement	SWS	0.007	Off-site in watershed	12/11/2002
Elanus (I-15 & Clairemont Mesa Blvd) LT	Wetland Enhancement	EW	0.005	Off-site in watershed	
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Wetland Enhancement	NVC	0.01	Off-site out of watershed	2/1/2004
Euclid & Menlo (47th & Thorn Sewer Maint & Emerg)	Wetland Enhancement	DWET	0.08	Off-site out of watershed	2/1/2004
Euclid & Menlo Canyon (47th & Thorn Emergency Repa	Wetland Enhancement	NVC	0.0011	Off-site out of watershed	4/29/2002
Euclid and Menlo Emerg Pipe Protection	Wetland Enhancement	NVC	0.005	Off-site out of watershed	5/26/2011
Federal & Chollas	Wetland Enhancement	DWET	0.0008	Off-site out of watershed	10/22/2002
Fox Canyon (University & 49th) Emergency Repair	Wetland Enhancement	NVC	0.002	Off-site out of watershed	10/29/2007
Hopkins	Wetland Enhancement	DWET	0.02	Off-site out of watershed	3/17/2004

Rancho Mission Enhancement

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Hopkins (Calle Abajo Emergency)	Wetland Enhancement	NVC	0.002	Off-site out of watershed	4/3/2002
Huckleberry (32nd St Canyon Emergency Maintenance)	Wetland Enhancement	DWET	0.04	Off-site out of watershed	7/21/2003
Hwy 163 Corridor (7th & Brookes 2002Emergency Repa Hwy 163 North LT	Wetland Enhancement	NVC	0.02	Off-site out of watershed	11/30/2002
I-15 & Adams	Wetland Enhancement	NVC	0.001	Off-site out of watershed	
I-15 & Adams	Wetland Enhancement	NVC	0.07	Off-site in watershed	5/6/2004
I-15 & Adams	Wetland Enhancement	EW	0.004	Off-site in watershed	5/6/2004
I-805 & 94 Canyon (40th & C Emergency Repair)	Wetland Enhancement	NVC	0.0013	Off-site out of watershed	2/6/2003
Isla Vista Emergency Response Project	Wetland Enhancement	NVC	0.003	Off-site out of watershed	5/17/2004
Lexington/Manzanita Pipe and MH Replacement Emer	Wetland Enhancement	NVC	0.016	Off-site out of watershed	11/4/2008
Lexington/Manzanita Pipe Encasement Emergency	Wetland Enhancement	NVC	0.005	Off-site out of watershed	6/4/2009
Market & Euclid (MH 88 Repair at Encanto Creek)	Wetland Enhancement	SWS	0.003	Off-site out of watershed	10/22/2009
Mission Center Canyon B	Wetland Enhancement	EW	0.02	Off-site in watershed	1/1/2011
Mission Center Canyon B	Wetland Enhancement	DWET	0.014	Off-site in watershed	1/1/2011
Mission Center Canyon B	Wetland Enhancement	RS	0.025	Off-site in watershed	1/1/2011
Mission Center Canyon Emergency Sewer Repair	Wetland Enhancement	NVC	0.014	Off-site in watershed	3/10/2010
Mission Center Canyon Emergency Sewer Repair	Wetland Enhancement	DWET	0.006	Off-site in watershed	3/10/2010
Mission Center Canyon Emergency Sewer Repair	Wetland Enhancement	SWS	0.004	Off-site in watershed	3/10/2010
Mission Center Canyon Emergency Sewer Repair	Wetland Enhancement	FM	0.023	Off-site in watershed	3/10/2010
Murphy Canyon TS Access and Repair	Wetland Enhancement	FM	0.051	Off-site out of watershed	
Norfolk (Fairmont & Montezuma)	Wetland Enhancement	SWS	0.003	Off-site in watershed	4/22/2002
Norfolk (Fairmont & Montezuma)	Wetland Enhancement	NVC	0.042	Off-site in watershed	4/22/2002
Norfolk Canyon Maintenance Project	Wetland Enhancement	NVC	0.002	Off-site in watershed	6/10/2004
Otay Valley TS Pipe Protection	Wetland Enhancement	SWS	0.001	Off-site out of watershed	
Otay Valley TS Pipe Protection	Wetland Enhancement	MFS	0.004	Off-site out of watershed	

Rancho Mission Enhancement

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Presidio (Palm Cyn) GJ665	Wetland Enhancement	RS	0.165	Off-site in watershed	
Presidio (Palm Cyn) GJ665	Wetland Enhancement	NVC	0.0137	Off-site in watershed	
Rancho Mission (Mission Gorge Canyon, Conestoga Co	Wetland Enhancement	NVC	0.008	In-canyon	2/7/2002
Rancho Mission (Mission Gorge Canyon, Conestoga Co	Wetland Enhancement	DWET	0.005	In-canyon	2/7/2002
Rancho Mission LT	Wetland Enhancement	SWS	0.007	Off-site in watershed	
San Diego Mission Rd Emergency	Wetland Enhancement	FM	0.01	Off-site in watershed	7/9/2011
San Diego Mission Rd Emergency	Wetland Enhancement	SWS	0.01	Off-site in watershed	7/9/2011
Shepherd	Wetland Enhancement	SWS	0.01	Off-site in watershed	2/1/2003
Shepherd LT	Wetland Enhancement	RS	0.02	Off-site in watershed	
Shepherd LT	Wetland Enhancement	RW	0.06	Off-site in watershed	
Shepherd LT	Wetland Enhancement	NVC	0.03	Off-site in watershed	
Shepherd LT	Wetland Enhancement	DWET	0.015	Off-site in watershed	
South Juniper Emergency Project	Wetland Enhancement	NVC	0.02	Off-site out of watershed	5/14/2006
Valencia Canyon Emergency Repair & Maintenance	Wetland Enhancement	NVC	0.0014	Off-site out of watershed	1/25/2003
Valencia Canyon Emergency Repair & Maintenance	Wetland Enhancement	MFS	0.004	Off-site out of watershed	1/25/2003
Willow St. Canyon	Wetland Enhancement	NVC	0.004	Off-site out of watershed	5/2/2005
Woodman Canyon Emergency Sewer Access and Repair	Wetland Enhancement	NVC	0.004	Off-site out of watershed	1/6/2005

Total Mitigation Acres: 2.1581 acres

Rose Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
I-5/SR-52 Maintenance Project	Upland Restoration	DCSS	0.02	In-canyon	
I-5/SR-52 Maintenance Project	Upland Restoration	NNG	0.01	In-canyon	
Middle Rose Creek (ER Repair -Rose W of Genesee)	Upland Restoration	NNG	0.04	In-canyon	12/1/2002

Rose Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Middle Rose Creek (ER Repair -Rose W of Genesee)	Upland Restoration	DCSS	0.06	In-canyon	12/1/2002
Miramar Trunk Sewer Replacement Project	Upland Restoration	DCSS	0.737	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	BBS	0.959	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	SMC	0.058	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	NNG	0.181	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	SOC	0.027	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	POS	0.117	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Upland Restoration	CLOW	0.154	In-canyon	7/6/2007
Old Rose Canyon Sewer Relocation Project	Upland Restoration	NNG	0.045	In-canyon	
Penasquitos Bluffs (Finger Canyon Emergency)	Upland Restoration	NG	0.02	Off-site in watershed	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Upland Restoration	SOC	0.3	Off-site in watershed	11/1/2000
Penasquitos View Emergency	Upland Restoration	DCSS	0.01	Off-site in watershed	8/18/2004
Rose Canyon ER Repairs between 9/01 and 5/03	Upland Restoration	BBS	0.03	In-canyon	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Upland Restoration	DCSS	0.13	In-canyon	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Upland Restoration	NNG	0.2	In-canyon	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Upland Restoration	POS	0.05	In-canyon	9/1/2001

Total Mitigation Acres: 3.148 acres

wetland

I-5/SR-52 Maintenance Project	Wetland Creation	SWS	0.03	In-canyon	
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Creation	CVFM	0.21	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Creation	MFS	0.11	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Creation	EW	0.005	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Enhancement	EW	0.005	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Enhancement	CVFM	0.21	In-canyon	2/8/2005

Rose Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Creation	SWS	0.32	In-canyon	2/8/2005
Lower Rose Canyon Emergency Repairs (MH 15)	Wetland Enhancement	MFS	0.11	In-canyon	2/8/2005
Middle Rose Cyn MH 160 Emergency	Wetland Creation	SWS	0.02	Off-site in watershed	11/17/2011
Middle Rose Cyn MH 160 Emergency	Wetland Enhancement	NVC	0.02	Off-site in watershed	11/17/2011
Miramar Trunk Sewer Replacement Project	Wetland Creation	MFS	1.352	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Wetland Creation	RW	0.577	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Wetland Creation	SCLORF	0.162	In-canyon	7/6/2007
Miramar Trunk Sewer Replacement Project	Wetland Creation	SWS	0.445	In-canyon	7/6/2007
Monte Verde Sewer Improvements	Wetland Creation	SRF	0.04	In-canyon	1/1/2010
Old Rose Canyon Sewer Relocation Project	Wetland Creation	FM	0.002	In-canyon	
Old Rose Canyon Sewer Relocation Project	Wetland Creation	SWS	0.04	In-canyon	
Old Rose Canyon Sewer Relocation Project	Wetland Creation	MFS	0.007	In-canyon	
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Creation	NVC	0.0018	In-canyon	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Creation	RW	0.02	In-canyon	9/1/2001
Rose Canyon ER Repairs between 9/01 and 5/03	Wetland Creation	MFS	0.03	In-canyon	9/1/2001
Rose Creek East of I-805 (Miramar Rd & Commerce Av	Wetland Creation	SWS	0.03	In-canyon	3/11/2002
Rose Creek Emergency Bypass Project	Wetland Enhancement	NVC	0.005	In-canyon	1/31/2005

Total Mitigation Acres: 3.7518 acres

San Clemente Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
Gesner LT	Upland Restoration	DCSS	0.1	Off-site in watershed	
Gesner/Huron	Upland Restoration	NNG	0.01	Off-site in watershed	8/1/1998
Penasquitos Bluffs (Finger Canyon Emergency)	Upland Restoration	CC	0.02	Off-site in watershed	11/1/2000

San Clemente Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Penasquitos Bluffs (Finger Canyon Emergency)	Upland Restoration	DCSS	0.71	Off-site in watershed	11/1/2000
Penasquitos Bluffs (Finger Canyon Emergency)	Upland Restoration	NNG	0.03	Off-site in watershed	11/1/2000
San Clemente (Emergency Repairs Combined)	Upland Restoration	DCSS	0.051	In-canyon	9/1/2001
San Clemente (Emergency Repairs Combined)	Upland Restoration	NNG	0.005	In-canyon	9/1/2001
San Clemente Canyon Access Path LT Project	Upland Restoration	DCSS	0.035	In-canyon	
San Clemente Canyon Access Path LT Project	Upland Restoration	CLOW	0.54	In-canyon	
San Clemente Canyon Biltmore Pipe Protection Emerg	Upland Restoration	SMC	0.01	In-canyon	11/30/2006
San Clemente Canyon Biltmore Pipe Protection Emerg	Upland Restoration	DCSS	0.01	In-canyon	11/30/2006
San Clemente Canyon Biltmore Pipe Protection Emerg	Upland Restoration	NNG	0.051	In-canyon	11/30/2006
San Clemente LT MH #4	Upland Restoration	DCSS	0.076	In-canyon	9/20/2010

Total Mitigation Acres: 1.648 acres

wetland

Balboa Terrace Trunk Sewer Replacement	Wetland Creation	NVC	0.014	Off-site in watershed	
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	MFS	0.022	Off-site in watershed	
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	SWS	0.064	Off-site in watershed	
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	SCLORF	0.003	Off-site in watershed	
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	FM	0.04	Off-site in watershed	
Balboa Terrace Trunk Sewer Replacement	Wetland Creation	DWET	0.107	Off-site in watershed	
Carroll Canyon Emergency Sewer Repair	Wetland Creation	NVC	0.01	Off-site in watershed	2/26/2010
Carroll Canyon Emergency Sewer Repair	Wetland Creation	SAWRF	0.03	Off-site in watershed	2/26/2010
Dakota Canyon Replacement/Relocation/Access	Wetland Creation	NVC	0.03	Off-site in watershed	1/22/2008
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Creation	SRF	0.04	Off-site in watershed	
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Creation	SWS	0.036	Off-site in watershed	
East Tecolote Canyon Pipe Encasemt Protection Proj	Wetland Creation	OW	0.023	Off-site in watershed	

San Clemente Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
Penasquitos Bluffs LT	Wetland Creation	SWS	0.01	Off-site in watershed	
Penasquitos Bluffs LT	Wetland Creation	AM	0.014	Off-site in watershed	
Penasquitos Bluffs LT	Wetland Creation	FM	0.014	Off-site in watershed	
San Clemente Canyon Access Path LT Project	Wetland Creation	SCLORF	0.85	In-canyon	
San Clemente Canyon Access Path LT Project	Wetland Creation	SCWRF	0.27	In-canyon	
San Clemente Canyon Biltmore Pipe Protection Emerg	Wetland Creation	SCLORF	0.117	In-canyon	11/30/2006
San Clemente Canyon Biltmore Pipe Protection Emerg	Wetland Creation	NVC	0.004	In-canyon	11/30/2006
San Clemente Canyon Mitigation Project	Wetland Creation	SCLORF	0.003	In-canyon	
San Clemente Emergency Sewer Encasement Repair	Wetland Creation	NVC	0.01	In-canyon	12/13/2010
San Clemente Emergency Sewer Encasement Repair	Wetland Creation	SCLORF	0.02	In-canyon	12/13/2010
Soledad Valley Water Line Break	Wetland Creation	AM	0.2	Off-site in watershed	
Stevenson Long Term Access Project	Wetland Creation	MFS	0.085	Off-site in watershed	
Stevenson Long Term Access Project	Wetland Creation	SWS	0.028	Off-site in watershed	
Tecolote Mt. Ashmun Pipe Protection Emergency	Wetland Creation	RF	0.01	Off-site in watershed	1/17/2008
Total Mitigation Acres:			2.054 acres		

Tecolote - Tree of Heaven removal

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
wetland					
Tecolote	Wetland Enhancement	SCLORF	0.25	In-canyon	2/28/2001
Total Mitigation Acres:			0.25 acres		

Tecolote Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
upland					
East Tecolote (East Clairemont)	Upland Restoration	DCSS	0.012	In-canyon	1/8/2002

Tecolote Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
East Tecolote Emergency MH 218	Upland Restoration	DCSS	0.027	In-canyon	2/8/2010
East Tecolote Manholes 223 and 224 Emergency	Upland Restoration	DCSS	0.009	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Upland Restoration	CLOW	0.018	In-canyon	12/16/2009
Manning Street Sewer Repair	Upland Restoration	NNG	0.1	In-canyon	7/6/2001
Manning Street Sewer Repair	Upland Restoration	DCSS	1	In-canyon	7/6/2001
Park Mesa LT	Upland Restoration	NNG	0.009	Off-site in watershed	1/11/2011
Park Mesa LT	Upland Restoration	DCSS	0.108	Off-site in watershed	1/11/2011
Park Mesa LT	Upland Restoration	SMC	0.015	Off-site in watershed	1/11/2011
Park Mesa Way	Upland Restoration	BBS	0.04	In-canyon	1/13/2000
Stevenson Canyon MH 257 Emergency	Upland Restoration	DCSS	0.0048	Off-site in watershed	10/30/2012
Tecolote	Upland Restoration	POS	0.03	In-canyon	2/28/2001
Tecolote	Upland Restoration	DCSS	0.07	In-canyon	2/28/2001
Tecolote (including Mt. Elbrus)	Upland Restoration	DCSS	0.245	In-canyon	11/18/2002
Tecolote (including Mt. Elbrus)	Upland Restoration	NNG	0.05	In-canyon	11/18/2002
Tecolote Canyon Mitigation Project	Upland Restoration	POS	0.65	In-canyon	
Tecolote Emergency Pipe Repair (Crossing)	Upland Restoration	DCSS	0.004	In-canyon	12/13/2004
Tecolote LT	Upland Restoration	DCSS	0.4	In-canyon	
Tecolote Pipe Repair Near Manhole 346	Upland Restoration	NNG	0.11	In-canyon	8/17/2009
Tecolote Pipe Repair Near Manhole 346	Upland Restoration	DCSS	0.024	In-canyon	8/17/2009
Total Mitigation Acres:			2.9258 acres		
wetland					
East Tecolote (East Clairemont)	Wetland Creation	SRF	0.004	In-canyon	1/8/2002
East Tecolote (East Clairemont)	Wetland Creation	SWS	0.0001	In-canyon	1/8/2002
East Tecolote Emergency MH 218	Wetland Creation	SRF	0.048	In-canyon	2/8/2010

Tecolote Canyon Wetland and Upland

Impact Project	Mitigation Type	Habitat Type	Acreage	Location	Impact Date
East Tecolote Emergency MH 218	Wetland Creation	NVC	0.007	In-canyon	2/8/2010
East Tecolote Manholes 223 and 224 Emergency	Wetland Creation	SRF	0.034	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Creation	SWS	0.033	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Creation	FM	0.039	In-canyon	12/16/2009
East Tecolote Manholes 223 and 224 Emergency	Wetland Creation	OW	0.015	In-canyon	12/16/2009
Park Mesa Way	Wetland Creation	SWS	0.15	In-canyon	1/13/2000
Tecolote (including Mt. Elbrus)	Wetland Creation	SCLORF	0.2	In-canyon	11/18/2002
Tecolote (including Mt. Elbrus)	Wetland Creation	SWS	0.13	In-canyon	11/18/2002
Tecolote Emergency Pipe Repair (Crossing)	Wetland Creation	SCLORF	0.002	In-canyon	12/13/2004
Tecolote Emergency Pipe Repair (Crossing)	Wetland Creation	EW	0.002	In-canyon	12/13/2004
Tecolote Emergency Pipe Repair (Crossing)	Wetland Creation	SWS	0.008	In-canyon	12/13/2004
Tecolote LT	Wetland Creation	SRF	0.7	In-canyon	
Tecolote LT	Wetland Creation	MFS	0.01	In-canyon	
Tecolote LT	Wetland Creation	SWS	0.03	In-canyon	
Tecolote MH 101 Emergency	Wetland Creation	NVC	0.0034	In-canyon	4/5/2010
Tecolote MH 101 Emergency	Wetland Creation	MFS	0.0005	In-canyon	4/5/2010
Tecolote Mt. Ashmun Pipe Protection Emergency	Wetland Creation	RF	0.01	In-canyon	1/17/2008
Tecolote Mt. Ashmun Pipe Protection Erosion Contro	Wetland Creation	RF	0.002	In-canyon	9/9/2009
Tecolote Mt. Ashmun Pipe Protection Erosion Contro	Wetland Creation	SWS	0.001	In-canyon	9/9/2009
Tecolote Pipe Repair Near Manhole 346	Wetland Creation	SRF	0.035	In-canyon	8/17/2009
Total Mitigation Acres:			1.464 acres		