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July 14, 2006

Ms. Laurel L. Impett, AICP
Shute, Mihaly & Weinberger LLP
396 Hayes Street
San Francisco, CA 94102

Subject: **Final Environmental Impact Report, University City North/South
Transportation Corridor Study.**

Dear Ms. Impett:

This comment letter on the subject Final Environmental Impact Report (FEIR) is submitted by the Conservation Biology Institute (CBI) on behalf of Friends of Rose Canyon. CBI is a non-profit conservation science organization whose mission is providing scientific expertise to support conservation and recovery of biological diversity in its natural state through applied research, education, planning, and community service. I have largely confined my review to the Biological Resources section in the FEIR; however I comment on other sections when relevant to the analysis of biological resources impacts. In general, I find the project's purpose and objectives are not clearly defined, the description of the project is not complete, the description of the environmental setting of the project is inadequate, the analysis of impacts is incomplete, and the proposed mitigation measures are inadequate to compensate for the impacts that this project would have on biological resources in the project area. In addition, a number of changes have been made to the FEIR and Biological Technical Report since the Draft EIR was circulated that are unexplained (for example, changes to impact acreages). These deficiencies leave the Biological Resources section of the document inadequate to allow the public and decision-makers to compare alternatives and select the least damaging alternative that accomplishes the project's purpose. I elaborate on these comments below.

Section 3.2 Project Purpose/Objectives does not clearly define purpose and objectives of the project.

This section of the FEIR defines the project purpose and objectives in very general terms, such as “relieve existing and future traffic congestion” or “Improve intersection level of service.” These general objectives do not provide decision-makers with adequate thresholds with which to compare the performance of alternatives in meeting project objectives relative to the impacts associated with each. For example, as worded now any incremental improvement in traffic congestion or level of service will achieve the project’s objectives; thus, given that all alternatives evaluated in detail in the FEIR perform at this level, the least damaging alternative must be selected. This is a particular problem when justifying impacts to wetlands and waters of the U.S., as will be discussed further below.

Section 3.3 Project Alternatives do not describe features of the project adequately.

The description of the project does not include all features of the project that may have environmental impacts. For example, the FEIR describes implementation of BMPs (i.e., sedimentation basins, grassy swales, and/or mechanical trapping devices) to control sedimentation and runoff (both quality and quantity). The characteristics, effectiveness, and locations of these facilities are not described. These project features could significantly change the character of biological resources in natural open space in the project area, and thus, should be described and analyzed in the FEIR. For example, if sedimentation basins are proposed, their sizes, locations, and maintenance schedules should be described for each project alternative. Likewise, if stormwater retention/detention facilities are proposed, their characteristics and locations should be presented in the project description of each project alternative.

Inadequate description of existing biological resources conditions.

The description of existing conditions (Section 4.3.1) has a number of deficiencies that prevent its use in a complete impact analysis. For example, surveys of existing conditions appear to be confined to an approximately 1,000-foot wide corridor around the centerline of the proposed alignment of the Regents Road bridge (i.e., 500 feet on either side of the centerline), while wetland delineations and least Bell’s vireo and southwestern willow flycatcher surveys were conducted only within the proposed impact areas of the project. As acknowledged by the FEIR and Biological Technical Report, and discussed further below, indirect impacts of the proposed project can extend well beyond this arbitrary survey boundary (e.g., construction noise impacts can extend at least 500-feet and up to 1,000-feet from the edge of the Regents Road bridge). It is impossible to quantify potential impacts of the proposed project unless all biological resources that may potentially be affected are identified, described, and quantified. Biological resources surveys for the project should be expanded to include all areas that may be adversely affected by direct, indirect, and cumulative impacts of the proposed project.

The FEIR and Biological Technical Report describe the dominant riparian vegetation community in Rose Canyon and San Clemente Canyon as Southern Cottonwood-Willow Riparian Forest. However, the description provided in the FEIR, and additional information in the Biological Technical Report, indicates that this community would probably be better classified as Sycamore Alluvial Woodland. For example, the description of Southern Cottonwood-Willow Riparian Forest in the FEIR indicates that western sycamores are the dominant overstory species and that coast live oaks are present along the upper terraces of the creek channels. The description goes on to say that “western sycamore and coast live oaks are not typical components of Southern Cottonwood-Willow Riparian Forest.” The “water resources” description in the Biological Technical Report, reports on historic riparian conditions of Rose Creek from historic (i.e., back to 1928) aerial photographs. The Biological Technical Report described the dominant conditions of Rose Creek prior to extensive development of the surrounding mesas in the area as “open floodplain riparian community supporting predominantly oak and sycamore trees along and active floodplain with scoured braided channels.” This description is consistent with a sycamore alluvial woodland community. This issue is relevant because sycamore alluvial woodlands are much rarer (and poorly described) in San Diego County, are much less tolerant of increases in stream discharge as can occur with road projects. Furthermore, the changes observed in this habitat within Rose and Sycamore canyons, speaks to the level of cumulative impacts that have already occurred in these canyons, which is discussed further below. In addition, the description of this riparian habitat (regardless of its classification) has no information on the height of the canopy layer, which is relevant for assessing noise impacts as will be discussed further below.

In Section 4.3.1 (second paragraph), the statement “and an additional 15 to 25% of the site’s flora is expected to be comprised of annual species that could not be detected during the early summer survey dates.” was deleted from the document. However, the total number of plant species present (96) did not change, even though additional surveys dates outside of the summer period since the preparation of the DEIR are reported in the Biological Technical Report. The lack of additional annual plant species detected during the additional survey effort calls into question the comprehensiveness of the botanical surveys for the project. For example, a recommended mitigation measure for the project is to survey for willow monardella prior to initiation of construction. Are surveys for this species not considered adequate? The question of the comprehensiveness of the surveys is particularly relevant given the inappropriately limited survey area (see comment above).

The last paragraph of page 4.3-9 includes the sentence, “None of the wetlands are within the jurisdiction of the City of San Diego.” This is an incorrect statement. In addition, Tables 4.3-2 and 4.3-3 also provide an incorrect distinction between wetland jurisdictions, implying that federal, state and City of San Diego jurisdictions are independent of one another. In fact, wetland jurisdictions overlap. The Army Corps of Engineers jurisdictional wetlands also fall under the jurisdiction of the City of San Diego and the California Department of Fish and Game. The FEIR needs to clarify the

relationship of federal, state, and wetland jurisdictions, and ensure that statements regarding these jurisdictions are accurate.

Tables listing the acreages of various vegetation communities and wetlands jurisdictions in the FEIR have many unexplained changes since the DEIR. It is not clear whether these changes are corrections to errors in the DEIR or represent new information. The source of these changes needs to be clarified.

The FEIR impact analysis is confusing, not well supported, and under-represents impacts to biological resources.

1. FEIR Thresholds of Significance are Inadequate.

The thresholds of significance used in the FEIR are inadequate and inconsistent with those used in the Biological Technical Report, which are considered more appropriate. The project should be evaluated based on its potential to remove sensitive habitat, significantly degrade habitat quality, or adversely affect individual sensitive species and the existing native community as a whole (not just sensitive species). The context of the impact analysis is relevant to establishing the threshold for significance. For example, given the high degree of impact to biological resources in the study area from historic land use changes, additional incremental adverse changes should be considered significant. Thus, a relatively small acreage of impacts to less sensitive habitats within an area that has experienced a high level of biological resources impacts, such as Rose Canyon, should be considered significant, even though these impacts might not be considered significant in an area with very few historic impacts to biological resources.

The “population stability” threshold stated in the fifth paragraph on page 4.3-67 does not derive from the City of San Diego’s Biology Guidelines or CEQA Significance Determination Thresholds, and is an inappropriate standard. Furthermore, even if the population stability threshold is used, there is no justification for the conclusions drawn. In fact, referring to the impacts to sensitive species from the Rose Canyon bridge alternative the FEIR states that “impacts to sensitive species are expected to consist of displacement from the site and potential loss of adults that are unable to establish an alternative territory or which displace others.” Since there is very limited habitat available in the vicinity of Rose Canyon, displacement from the site may mean loss of the individuals from this area, thus loss of individuals from this local population.

2. Direct and Indirect Impacts are Understated.

The third full paragraph on page 4.3-47 states that direct impact to vegetation beneath the Rose Canyon bridge would not be significant because the bridge would stand approximately 60-feet above ground, which is anticipated to be high enough to allow for sunlight to reach the vegetation beneath the bridge. Nowhere in the FEIR is a detailed height profile of the bridge structure provided. The bridge is described as being a maximum of 60-feet high but is only 27-feet above the railroad tracks, and is ground level at the bridge abutments. This impact should be reanalyzed. It is logical to assume

that construction and operational noise impacts are related to the height of the bridge relative to the height of the vegetation adjacent to the bridge. Noise impacts to taller riparian woodland/forest vegetation would likely be significant for portions of the bridge span 60-feet above ground.

The FEIR greatly underestimates the magnitude of indirect impacts, particularly noise impacts in Rose Canyon. The existing noise levels in Rose Canyon are relatively high already, with peaks estimated at 55-56 dB at ground-level in the canyon. The FEIR states that the future operational noise contour of 65 dB(A) would extend as far as 140-feet from the bridge when the noise receiver is at-grade with the bridge (i.e., near the abutments) and as much as 240 feet when the receiver is line of sight from the bridge (i.e., towards the center of the bridge span). Since a 60 dB(A) significance threshold is used for biological resources, the 60 dB(A) contours should be clearly delimited to determine the anticipated area of impact. The FEIR states that there would be no significant impact from operational noise levels at the canyon floor based on empirical measurements taken at the Genesee Avenue bridge. However, mixing modeled noise projections with empirical measurements is inappropriate, particularly when the Genesee Avenue bridge has not been demonstrated to be an appropriate model for the Rose Canyon bridge. In addition, as discussed earlier, the riparian woodland canopy is a minimum of 25 feet above ground (as described for southern riparian scrub) and while the maximum height of the southern cottonwood-willow riparian forest is not presented in the FEIR, it is expected to be higher than that of the riparian scrub habitat. Thus, the canopy of these habitats, where avian species vocalize and nest (e.g., white-tailed kites, raptors), would potentially experience significant operational noise impacts. Detailed noise modeling should be performed to adequately assess the potential impacts of the Regents Road bridge alternative to biological receptors both laterally from the bridge and vertically from the top of the canopy to the canyon floor.

The FEIR identified indirect noise impacts from project construction as only a concern within 500-feet of the construction zone. This statement is not supported by any analysis or facts in the FEIR. Responses to comments on the DEIR that raised this issue state that "Mitigation monitoring at various construction projects required for such plans has generally found the noise impact contour to extend approximately 500 feet from the source." The specifics of and data for these studies should be provided to allow the reader to draw their own conclusions as to the validity of this "rule of thumb." The use of the word "generally" in the response to comment indicates that the 500-foot contour was not a universal finding of these mitigation monitoring studies, but no statistics are provided that allow further interpretation of this statement. In addition, the FEIR only identifies indirect noise impacts as an issue during the breeding season, when there would actually be an increase in noise to all year-round resident wildlife species of the canyon, as well as migratory breeders. Limiting project construction to outside of the avian breeding season is a mitigation measure to reduce significant construction noise impacts to breeding birds, but does not mitigate the significant indirect and cumulative degradation of wildlife habitat from operational noise.

As mentioned previously, western sycamores are sensitive to changes in hydrology. The project, particularly the alternatives that increase the amount of impervious surface cover in the vicinity of Rose and San Clemente canyons, have the potential to alter the hydrology of these creeks, and thus adversely affect sycamore dominated riparian habitat. The discussion of historic riparian conditions in the Biological Technical Report confirms the habitat changes that have occurred with urbanization of the surrounding area. A very small change in hydrology caused by installation of a storm drain from a new road or bridge can cause large local changes in stream hydrology. This issue was not adequately analyzed in the FEIR and was inappropriately dismissed as an insignificant impact. For example, when analyzing Land Use Adjacency Guidelines for the City's MSCP Subarea Plan for the Regents Road bridge (page 4.3-56), the subsection "Drainage" only addresses runoff of pollutants and not potential changes in stream hydrology or hydraulics associated with storm water runoff. The City's MSCP Subarea Plan Land Use Adjacency Guidelines state "All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA." Neither the project description nor the impact analysis for the Regents Road Bridge alternative provides sufficient detail to assess how storm water runoff is being handled and what potential impacts might occur as a result.

3. Cumulative Impacts Analysis is Inadequate.

The analysis of cumulative biological impacts associated with the Regents Road bridge alternative is inadequate. The FEIR attempts to argue that the direct impact acreage to coastal sage scrub, wetlands, and non-native grasslands is low and project-level impacts would be mitigated by creating and acquiring habitats, thus cumulative impacts are not significant. However, the FEIR contains no analysis to support these conclusions. In addition, the FEIR argues that since a 60 dB(A) noise threshold is not exceeded on the canyon floor there is no significant cumulative impact. However, as is defined in Section 5.0 of the FEIR, cumulative impacts ~~is~~ are based on "as list of *past*, present, and probable future projects" (emphasis added). The Biological Technical Report describes the significant changes that have occurred to the Rose Canyon riparian system as a result of urbanization of the surrounding area. There has been substantial loss of biological resources in this area as a result of urbanization, such that Rose and San Clemente Canyons are virtually the *only* remaining natural resources remaining in the area. As discussed previously, the analysis of indirect noise effects did not consider noise impacts in the riparian canopy adjacent to the bridge, and the 60 dB(A) threshold figure was not derived as a "no effect" level to all wildlife species but rather as an arbitrary standard established for the least Bell's vireo with incomplete information. Loss of habitats would be partially mitigated by creation or preservation of habitats *outside* of Rose Canyon, resulting in a net loss of habitat *in this system*. The Rose Canyon system survives in the face of myriad threats and stresses from previous development in the area, and additional, incremental adverse impacts from habitat loss and operational noise can only be expected to push it to collapse. One can only question at what point cumulative impacts would be considered significant? The cumulative impacts must be reassessed using a more appropriate baseline condition, such as the extent and quality of biological resources that historically occurred in the area.

The discussion of compatibility with MSCP Subarea Plan policies is inadequate and misleading.

The FEIR goes to great lengths to dismiss the significant impacts to the Multiple Habitat Planning Area (MHPA) of the City of San Diego's Multiple Habitat Conservation Plan (MSCP) and argue that the proposed project is compatible with the MSCP. The proposed project, and the Rose Canyon bridge alternative in particular, is not a project covered by the MSCP, i.e., it was not specifically proposed by the City of San Diego or approved by the state and federal wildlife agencies to receive endangered species take authorizations issued under the MSCP. The FEIR attempts to use the Roads and Utilities – Construction and Maintenance Policies in the City's MSCP Subarea Plan to justify impact to the MHPA for each individual alternative. However, the analysis should look at the suite of available alternatives that are available to achieve the project's purpose, and determine which particular alternative would be most consistent with these policies and thus meet the City's obligations under the MSCP.

The intent of the MSCP and the Roads and Utilities – Construction and Maintenance Policies in the Subarea Plan are clear – impacts to the MHPA should be avoided unless no other feasible option exists. For example, Policy # 3 states, “Temporary construction areas and roads, staging areas, or permanent access road must not disturb existing habitat unless determined to be unavoidable.” and Policy #4 states, “Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage.” In the case of the Rose Canyon bridge, alternatives do exist that would reduce or eliminate both temporary and permanent impacts to the MHPA, and therefore those alternatives must be considered before the bridge alternative. This position has also been articulated by the state and federal wildlife agencies in their comment letters on the DEIR. As correctly described in the FEIR, Rose and San Clemente canyons are Core Areas of the MSCP. Core Areas are defined in the MSCP as: areas with a “high concentration of sensitive biological resources which, if lost, could not be replaced or mitigated elsewhere.” The City of San Diego's CEQA Significance Determination Thresholds state that “any encroachment into the MHPA is considered a significant impact...” Thus, the FEIR must identify encroachment into the MHPA as a significant impact. In addition, Rose Canyon is mapped primarily as very high and high habitat value by the MSCP. Since the MHPA in Rose Canyon is within a MSCP Core Area and supports very high value habitats, the impacts to it, by definition, are significant and cannot be mitigated elsewhere.

The FEIR fails to provide the technical basis to conclude that mitigation would reduce impacts to a level less than significant.

The description of mitigation measures in the FEIR is inadequate to assess their potential for reducing impacts to a level less than significant. This is particularly true for mitigation of wetland impacts. The City of San Diego's Guidelines for Conducting Biology Surveys states “For instances where revegetation or restoration is proposed, a revegetation/restoration plan shall be prepared in accordance with Attachment III.” No

such revegetation/restoration plan has been prepared. Wetland mitigation is described as taking place at an unspecified location within the “drainage sheds” of Rose Creek and San Clemente Creek. Since these areas already support functional wetland and upland habitats, it is unclear where wetland creation areas would be sited without displacing other habitat types. In addition, the mitigation ratios cited in the FEIR are likely low, especially given that some of the impacts are to existing mitigation areas, which will require higher ratios if allowed at all. Thus, it is very likely that even more area for mitigation will be required than is stated in the FEIR. Since the details of mitigation measures are deferred to a future time, there is no way to assess whether the impacts of the proposed project will, in fact, be mitigated to a level less-than-significant.

Section 404 of the Clean Water Act presumes that there are feasible alternatives available for non-water dependent projects that accomplish their project’s purpose but do not require filling wetlands and waters of the U.S. It is the responsibility of the project applicant to refute this presumption. Furthermore, Section 404 mitigation sequencing guidelines, as well as the City of San Diego’s biology guidelines, require project applicants to sequence impacts and mitigation, i.e., avoid impacts first, then minimize impacts, and then mitigate remaining impacts. The proposed project is not water-dependent and there are clearly project alternatives that are feasible, accomplish the project purpose, and would result in fewer impacts to wetlands and waters of the U.S. than the Rose Canyon bridge alternative. Thus, these alternatives must be selected.

National Wetlands Policies requires that there be “no net loss” of the Nation’s wetlands functions and values. It will be extremely difficult to mitigate the loss of wetland functions and values supported by the Rose Creek system. As discussed previously, this drainage historically supported a sycamore alluvial woodland community with unique physical and biological properties. It will be exceedingly difficult to find a comparable area to serve as a mitigation site to recreate such as system to ensure no net loss policies are met. Many studies have shown that wetland mitigation sites rarely replace the full suite of functions and values at impact sites, and the probability of failure increases with the uniqueness of the system. Only by detailing the proposed wetland mitigation plan for the project, including the proposed site, planting palette, long-term maintenance program, etc. can a meaningful assessment be made of the probability of successful mitigation of significant impacts to wetland functions and values.

As discussed above, proposed mitigation for upland habitats includes “acquiring and preserving these habitats nearby” (Section 5.2.3.3). Thus, there would be a net loss of upland habitat acreage *within Rose Canyon* as a result of the project. Given the historic losses of habitat in the Rose Canyon area, this net loss of habitat should be considered a significant and unmitigable impact of the project.

Analysis of impacts to the Rose Canyon Riparian Habitat Enhancement/Restoration Project is flawed.

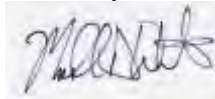
Comments on the DEIR identified that the Rose Canyon bridge alternative would adversely impact the Rose Canyon Riparian Habitat Enhancement/Restoration Project

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area, which was funded by a grant to the City of San Diego from the California Department of Parks and Recreation. The grant was requested by the City to remove exotic plant species and plant native species within the Rose Canyon Open Space Park. A requirement of the grant, which was successfully implemented, was for the City to agree to restrict the use of the property developed with the grant funds to uses allowed by the California Wildlife Protection Act of 1990 unless permitted by a specific act of the State Legislature. Clearly, construction of the Regents Road bridge is not an allowable use by the California Wildlife Protection Act. The FEIR makes the absurd argument that the restoration project only consisted of isolated patches (shown in Attachment 3 of Appendix V.C) that can be avoided by the Regents Road alternative with the addition of a large retaining wall. At a minimum this argument violates the spirit of the grant agreement, and could be construed as deceitful. Deborah Knight with the Friends of Rose Canyon reports that within the *drainage* where exotic species were removed, native riparian trees have reestablished. Thus, the project can be deemed a successful enhancement of the Rose Canyon system, and the City should be applauded for its environmental stewardship efforts. However, for the FEIR to argue that building the Regents Road bridge is compatible with and would not be a significant impact to this project is a poor attempt to pave over the truth.

In conclusion, I find that the FEIR has many substantial deficiencies. These include definition of the project's purpose and objectives, an incomplete description of the project, an inadequate description of the environmental setting of the project, inadequate analysis of impacts, and ill-defined and inadequate mitigation measures that do not reduce impacts to less-than-significant levels. I strongly urge the City of San Diego not to certify the FEIR, that it be revised to address these deficiencies, and recirculated for further review.

Sincerely,



Michael D. White, Ph.D.
Senior Ecologist

**ROSE CANYON UPLAND/WETLAND MITIGATION PROJECT
12-MONTH MONITORING REPORT**



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October 23, 2009

Handwritten signature of Adam H. Behle in black ink.

Adam H. Behle, Project Biologist

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**ROSE CANYON UPLAND/WETLAND MITIGATION PROJECT
12-MONTH MONITORING REPORT**

Merkel & Associates, Inc.
October 23, 2009

SUMMARY

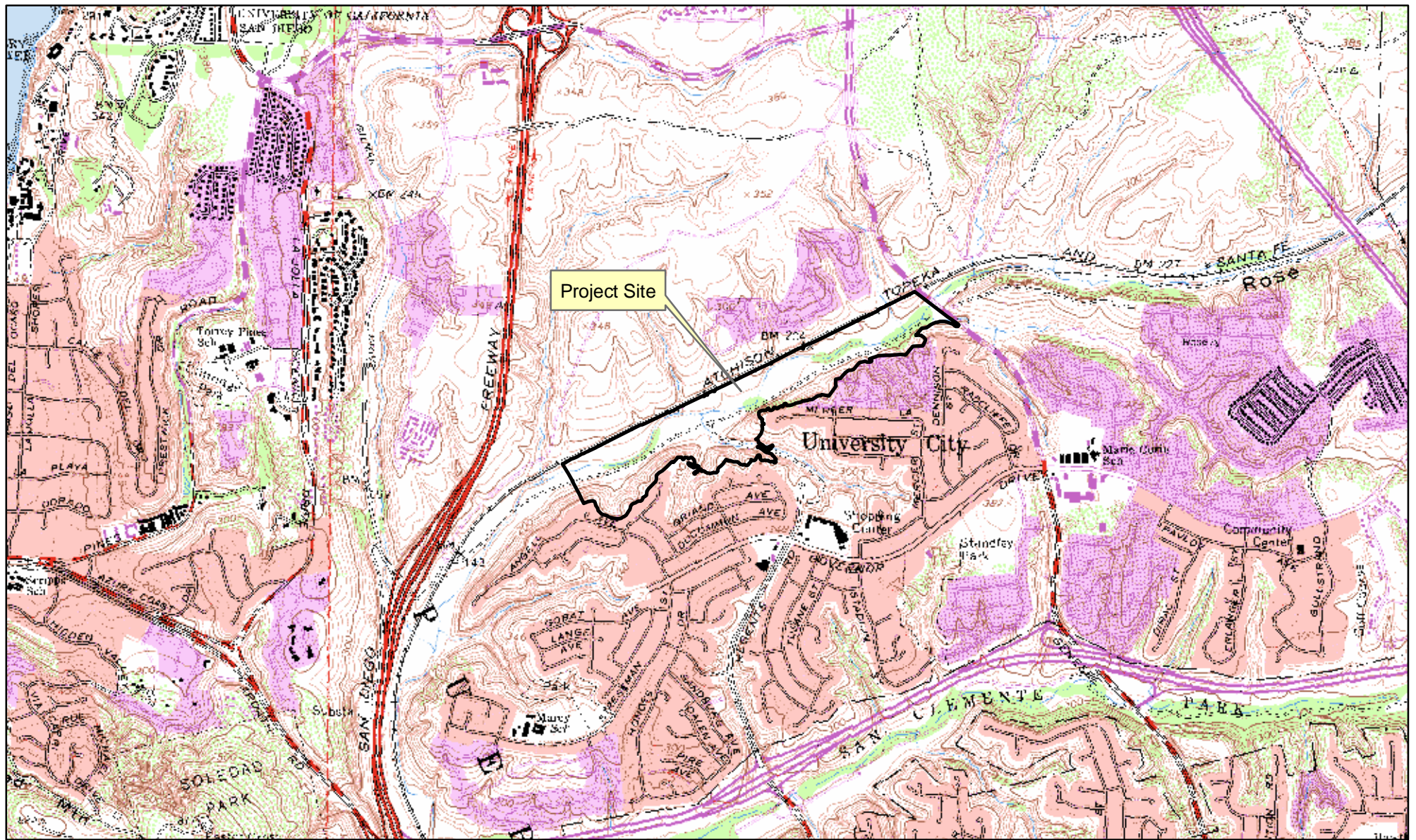
Monitoring of the 12-month milestone for the Rose Canyon Upland/Wetland Mitigation Project was conducted by Merkel & Associates on July 1-2, 2009 and July 14, 2009. The zero-month milestone for the site was met on July 15, 2008 by the successful implementation of the Rose Canyon Upland/Wetland Mitigation Project for the Public Utilities Department (Merkel & Associates, 2007). As of July 2009, the 12-month success criterion of 35% coverage of wetland vegetation transects and 30% coverage of upland vegetation transects has been exceeded by all revegetated plant communities.

All of the upland and wetland enhancement and creation areas in the Rose Canyon Upland/Wetland Mitigation Project have succeeded in the steady establishment of target species throughout the last 12 months. Native upland restoration areas are dominated by dense assemblages of Diegan coastal sage scrub species that currently provide approximately 92.0% cover. Wetland creation areas feature a wide distribution of target riparian species, but heavy storms that swept through the site during the 2007-2008 winter delayed the establishment of some species. Cover in the wetland areas averaged approximately 89.6%; however, plantings in some areas are diminished in stature. Survival rates for several species have not achieved 100% survival, but this may be partly attributed to the dense quantities of native vegetation that prevented locating some individuals. The irrigation schedule has been modified periodically to compensate for the arid summer season, but its use remains limited in order to mimic natural conditions and comply with the City's new water use ordinance.

PROJECT HISTORY

The Rose Canyon Upland/Wetland Mitigation Project was created to mitigate approximately 1.85 acres of wetland/waters impacts and 3.33 acres of upland impacts (anticipated and existing) associated with the Public Utilities Department (Public Utilities) Canyon Sewer Access and Pipeline Replacement projects located within the Peñasquitos Watershed. In 2005, a conceptual mitigation plan was designed by Merkel & Associates, Inc. (M&A) at the request of Public Utilities for the creation and enhancement of approximately 5.57 acres of wetland habitat and 5.37 acres of upland habitat located on various contiguous City of San Diego-owned parcels located within the community of University City (City of San Diego). The principal areas selected for use as mitigation sites are located within Tri-Canyon Regents Park in the middle portion of Rose Canyon, between Regents Road and Genesee Avenue (Figure 1).

In 2007, KTU+A Landscape Architecture and Planning (KTU+A) and Terracosta Consulting Group (TCG) utilized the conceptual mitigation plan to produce construction documents for project implementation. Habitat Restoration Sciences, Inc (HRS), a native landscape contractor, was selected by Public Utilities to implement the project, and on September 26, 2007 work commenced. M&A biologists provided daily monitoring and reporting for all aspects of project installation.



Project Site

University City



1:24000

Project Vicinity Map

Rose Canyon Upland and Wetland Mitigation Project

Source: USGS 7.5" La Jolla, CA Quadrangle

Figure 1

Installation on the project proceeded until March 6, 2008, when the project entered the 120-day plant establishment period (PEP). The purpose of the PEP was to insure that all plant materials were displaying successful signs of establishment and to monitor any mortality resulting from installation or transplanting stress. Plants that did not survive during the 120-day PEP were replaced according to the initial planting specifications and quantities in order to achieve final acceptance of the PEP. Final acceptance of the 120-day PEP occurred on July 15, 2008, which is considered the 0-month milestone and official start of the 5-year long-term maintenance and monitoring period. This document serves as the 12-month monitoring report in a 5-year monitoring program.

METHODS

Spot checks of the site were conducted regularly by Merkel & Associates to identify restoration maintenance needs in order to optimize revegetation success. M&A biologist, Adam H. Behle, collected data for the 12-month monitoring interval on July 1-2, 2009 and July 14, 2009.

A total of ten 50-meter transects were established utilizing fixed stakes. A GPS unit was used to record stake locations. Fixed transects were established to provide comparative data throughout the 5-year monitoring period (Figure 2). A point-intercept transect method was utilized to determine total vegetative cover with and without overlap of each species recorded in the revegetation areas (Appendix 1).

At wetland site 9, three transects were positioned as follows: T-1 and T-2 were located along the lower elevations of southern cottonwood willow riparian habitat; and T-3 was placed in oak riparian forest habitat along the southern slope that transitions to Diegan coastal sage scrub located to the south.







At wetland site 5, three additional transects were positioned as follows: T-4 and T-5 were located along the lower elevations of southern cottonwood willow riparian habitat; and T-6 was placed in oak riparian forest habitat along the southern slope that transitions to Diegan coastal sage scrub to the south.

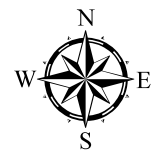
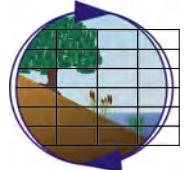
At site 2, transect T-7 was located parallel to the primary canyon access path in native grassland habitat, while upland transect T-8 was centrally located at a slightly higher elevation within site 1 in Diegan coastal sage scrub habitat.

At the upland site 6, upland transects T-9 and T-10 were located perpendicular to each other in Diegan coastal sage scrub habitat.

Percent cover was determined by noting each species present at one-meter intervals along each 50-meter transect. Data provided general presence/absence coverage information (*i.e.*, total percent target vegetative cover). Ten fixed photo points were also established to further document the site's condition and development during the monitoring period (Appendix 3). Photographs will continue to be taken during each subsequent monitoring period from each fixed photo point (one per transect). Additional overview photographs will enable a general assessment as to overall compliance with the success criteria, species richness of the site, and areas requiring special maintenance.

Vegetation Communities

-  southern cottonwood riparian forest
-  oak riparian forest
-  Diegan coastal sage scrub
-  native grassland
-  photo point
-  transect lines



Transect and Photo Point Locations
Rose Canyon Upland and Wetland Mitigation Project

Figure 2

RESULTS

The following describes the results of quantitative transect sampling for southern cottonwood willow riparian forest, oak riparian forest, Diegan coastal sage scrub, and native grassland vegetation types. Discussion of total percent vegetative cover values for habitat types does not include overlap, however, discussion of individual species do consider overlap. Overlap values provide a better depiction of vertical vegetative stratification, as well as an illustration of habitat heterogeneity. Vegetative cover data are provided in Appendix 1.

WETLAND CREATION AREAS (SITES 5 AND 9)

Southern Cottonwood Willow Riparian Forest

Southern cottonwood willow riparian forest transects (T-1, T-2, T-4, and T-5) revealed in an average of 91.1% total vegetative cover for southern cottonwood willow riparian habitat and 8.9% cover of bare ground. Native target wetland species accounted for an average of 87.5% cover without overlap for all transects. Herbaceous understory species provided most of the cover within this habitat type. These species included primarily western ragweed (*Ambrosia psilostachya*) and great marsh evening primrose (*Oenothera elata ssp. hirsutissima*), which represented averages of 22.3% and 49.1% cover with overlap, respectively. Other herbaceous species observed in lesser quantities included Palmer's sagewort (*Artemisia palmeri*), mugwort (*Artemisia douglasiana*), San Diego marsh elder (*Iva hayesiana*), and southwestern spiny rush (*Juncus acutus*), which contributed 19.6%, 19.2%, 12.1%, and 9.8% cover, respectively. Riparian canopy-forming species that were observed in lesser amounts included arroyo willow (*Salix lasiolepis*), western sycamore (*Platanus racemosa*), mule fat (*Baccharis salicifolia*), Fremont cottonwood (*Populus fremontii*), and Goodding's black willow (*Salix gooddingii*), which contributed 36.2%, 5.8%, 1.3%, 0.9%, and 0.9% cover, respectively. Non-native species that were recorded on the transects included white sweetclover (*Melilotus alba*), bristly ox-tongue (*Picris echioides*), annual beard grass (*Polypogon monspeliensis*), short-pod mustard (*Hirschfeldia incana*), and Bermuda grass (*Cynodon dactylon*), with covers of 1.8%, 1.8%, 1.3%, 1.3%, and 1.3%, respectively. Other non-native species along the transects included small quantities (<1.0%) of pampas grass (*Cortaderia selloana*) and scarlet pimpernel (*Anagallis arvensis*).

Oak Riparian Forest

Oak riparian forest transects (T-3 and T-6) revealed an average of 97.3% total vegetative cover and 2.7% bare ground. Total native vegetative cover without overlap averaged approximately 96.4% cover for both transects. Native target wetland species accounted for an average of 93.7% of the vegetative cover without overlap. Herbaceous understory species provided most of the cover within this habitat type; however, several riparian canopy-forming species were also encountered throughout the transect. Dominant understory wetland shrub species included mugwort, Palmer's sagewort, and western ragweed, which exhibited average cover values of 77.7%, 46.4%, and 15.2%, respectively. Other herbaceous species recorded in lesser quantities included California rose (*Rosa californica*), fuchsia flowered gooseberry (*Ribes speciosum*), San Diego marsh elder, and San Diego goldenbush (*Isocoma menziesii*), which exhibited average cover values of 4.5%, 3.6%, 2.7%, and 2.7%, respectively. Dominant target species in the tree layer included arroyo willow, coast live oak, and mule fat, which accounted for averages of 12.5%, 5.4% and 1.8% cover, respectively. Non-native species that were recorded on the transects included exclusively scarlet pimpernel and short-pod mustard, both with cover values of less than 1.0%.

UPLAND RESTORATION AREAS (SITES 1 AND 6)

Native Grassland

The native grassland transect T-7 revealed 98.2% total vegetative cover. Native target species accounted for 92.9% vegetative cover. California poppy (*Eschscholzia californica*) and beardless wild ryegrass (*Leymus triticoides*) provided the majority of the native species coverage, with cover values of 67.9% and 53.6%, respectively. Other target species such as purple needlegrass (*Nassella pulchra*), California sagebrush (*Artemisia californica*), and Mexican rush (*Juncus arcticus* var. *mexicanus*), were present in fewer quantities with cover values of 14.3%, 12.5%, and 7.1%, respectively. Other target upland species included small quantities of Palmer's sagewort and white everlasting, with covers of 5.4% and 3.6%, respectively. Additional native species that were encountered, but not necessarily considered target species for the intended habitat type included western vervain (*Verbena lasiostachys* var. *lasiostachys*) and arroyo willow, with covers of 7.1% and 5.4%, respectively. Non-native species included small amounts of ripgut grass (*Bromus diandrus*) and red brome (*Bromus madritensis* ssp. *rubens*), both with covers of 1.8%. Bare ground represented 1.8% of the overall transect.

Diegan Coastal Sage Scrub

The Diegan coastal sage scrub transects T-8, T-9, and T-10 revealed an average of 95.2% total vegetative cover. Native target species accounted for 91.1% vegetative cover without overlap. Western ragweed, California sagebrush, and coastal deerweed (*Lotus scoparius* var. *scoparius*) contributed the most coverage, with cover values of 44.6%, 44.0%, and 32.7% cover, respectively. Other Diegan coastal sage scrub representatives included lesser quantities of flat-top buckwheat, Palmer's sagewort, white sage, and coyote brush (*Baccharis pilularis*), with cover values of 19.0%, 16.1%, 11.9%, and 5.4%, respectively. Other species encountered that were native, but not necessarily target species, included western vervain, arroyo willow, and great marsh evening primrose with covers of 7.1%, 4.2%, and 4.2%, respectively. Non-native species included scarlet pimpernel, pampas grass, and white sweetclover with cover values of 2.4%, 0.6%, and 0.6%, respectively. Bare ground represented an average of 4.8% over the three transects.

SURVIVAL COUNT

As part of the 12-month success criteria, a 100% survival of plantings is required. Survival and mortality rates were estimated in all wetland creation and enhancement areas of the project for riparian canopy species, including coast live oak, western sycamore, and Fremont cottonwood (Table 1). Due to the dense coverage of rapidly growing herbaceous plantings throughout the mitigation areas, locating each of the tree plantings was very difficult, despite an exhaustive effort by HRS and M&A. It is estimated that approximately 10%-15% of the plantings may not have been found due to the heavy vegetation within each restoration area. Additionally, evidence of dead plantings was marginal, with only a single dead coast live oak confirmed.

Survival rates for Diegan coastal sage scrub species are not specified for the 12-month success milestone; however, 100% survival was required for the 6-month milestone. Due to the dense and diverse coverage of planted target species found in the upland areas, it was decided by M&A, HRS, and Public Utilities that the survival count would be limited to spiny redberry (*Rhamnus crocea*) and coast prickly pear (*Opuntia littoralis*). Both of these slow growing species have been noticeably absent during recent maintenance walkthroughs and transect surveys. HRS revegetation crews

located the plantings during a routine maintenance visit on July 14, 2009. Similar to the riparian species survival count, it is estimated that approximately 15%-20% of the plantings may not have been found due to the heavy vegetation that surrounds each planting. Survival rates for these two species are listed in the following Table 2.

Table 1. Current Survival Rates for Riparian Canopy Forming Species

Species	Survival Rate	Mortality Count	Total Replanting Quantity**
coast live oak (<i>Quercus agrifolia</i>)	79%	37	43
Fremont cottonwood (<i>Populus fremontii</i>)	80%	38	44
western sycamore (<i>Platanus racemosa</i>)	100%*	0	0

Table 2. Current Survival Rates for Spiny Redberry and Coast Prickly Pear

Species	Survival Rate	Mortality Count	Total Replanting Quantity**
spiny redberry (<i>Rhamnus crocea</i>)	56%	78	90
coast prickly pear (<i>Opuntia littoralis</i>)	76%	19	22

*Quantity may be greater than originally planted due to numerous plants that have recruited from nearby mature western sycamore sources.

**Replanting quantities include a 15% contingency that takes into consideration plants that were not located due to dense vegetative growth.

DISCUSSION

QUANTITATIVE ANALYSIS

The quantitative vegetation sampling results were compared to the milestones for success of the mitigation site as specified in the Wetland Mitigation Plan for the Metropolitan Wastewater Department Rose Canyon Mitigation Project (Merkel & Associates, Inc. 2005). Success criteria are shown in Tables 3 and 4. The current success criteria for riparian vegetation are 35.0% vegetative cover and 100% survival of container stock. The current success criteria for upland vegetation are 30.0% vegetative cover and the requirement that bare areas do not exceed 50 square feet. Table 5 compares the quantitative results with the established success criteria.

In general, target vegetative cover values have exceeded all current project success criteria listed by the mitigation plan. Wetland transects in southern cottonwood willow riparian forest averaged 87.5% target native vegetative cover, while transects in oak riparian forest habitat averaged 93.7% target native vegetative cover. For the overall project, wetland transects collectively averaged 90.6% target vegetative cover, exceeding the 12-month cover requirement of 35.0% cover.

Table 3. Habitat Success Milestones for Riparian Vegetation

Milestone	Assessment Criteria	Maintenance Action
0 Month	Baseline information; no coverage criteria; all planting densities achieved. 100% survival of all container plants.	Plant densities brought up to meet requirements.
6 Months	Target vegetation cover totals at least 10%. 80% overall survival of all container plants.	If cover or survival criteria fail to achieve minimum standards, plant densities will be brought up to 100% of the initial planting densities.
12 Months	Target vegetation cover totals at least 35%. 100% survival of all plants achieving 6 month milestone.	If cover or survival criteria fail to achieve minimum standards, plant densities will be brought up to 100% of the initial planting densities.
24 Months	Target vegetation cover totals at least 50%. 100% survival of all plants achieving 12 month milestone and/or 65% cover.	If cover criteria is not met, additional planting will be performed to bring all areas up to initial planting densities.
36 Months	Target vegetation cover totals 70% cover and/or is equal to 70% of cover obtained from average of control transects. Survival of individual units dropped as criteria. Natural recruitment of target vegetation exhibited along transects. Irrigation system off.	If cover criteria is not met, additional planting will be performed to bring all areas up to initial planting densities.
48 Months	Target vegetation cover totals 75% cover and/or is equal to 75% of cover obtained from average of control transects. Natural recruitment of target species noted on transects.	If cover criteria is not met, additional planting will be performed to bring all areas up to initial planting densities. Native riparian plant substitutions will be made based on prevailing conditions and successful development of stock.
60 Months	Target vegetation cover totals 80% and/or is equal to 90% of cover obtained from average of control transects. Average canopy exceeds 6 feet and Arroyo Willow, Goodding's Black Willow, Western Sycamore, Fremont Cottonwood exceed 9 feet. Natural recruitment of target species noted on transects. Above ground components of irrigation system removed.	If parts of the revegetation failed to achieve the outlined goals, an analysis will be made by the regulatory agencies to determine reasonable alternatives, which could be exercised to satisfy mitigation requirements.

Table 4. Habitat Success Milestones for Upland Vegetation

Milestone	Assessment Criteria	Maintenance Action
0 Month	Baseline information; no coverage criteria; all planting densities achieved. Full site coverage of hydro-seeded mix.	Plant densities brought up to meet initial requirements.
6 Months	Target vegetation cover totals at least 10% of site Bare areas do not exceed greater than 100 square feet	If cover or survival criteria fail to achieve minimum standards, cover will be brought up to 100% of the initial planting densities through additional hydro-seeding/planting. Container stock is to be replaced no more than once at each planting site, subsequent failure, if any, should be through placement of seed.
12 Months	Target vegetation cover totals at least 30% of site. Bare areas do not exceed greater than 50 square feet	If cover or survival criteria fail to achieve minimum standards, hydro-seeding will be brought up to expected planting densities for site success.
24 Months	Target vegetation cover totals at least 40% of site.	If cover criteria is not met, additional hydro-seeding will be performed to bring all areas up to expected planting densities for site success.
36 Months	Target vegetation cover totals 50% of site. Natural recruitment of target species noted on all transects. Average canopy exceeds two feet.	If cover criteria is not met, additional hydro-seeding will be performed to bring all areas up to expected planting densities for site success.
48 Months	Target vegetation cover totals 60% site. Natural recruitment of target species noted on all transects. Irrigation completely phased out.	If cover criteria is not met, native sage scrub container plant substitutions will be made based on prevailing conditions to bring all areas up to expected planting densities for site success.
60 Months	Target vegetation cover totals 70% site. Natural recruitment of target species noted on all transects.	If parts of the revegetation failed to achieve the outlined goals, an analysis will be made by the project restoration specialist with concurrence from City of San Diego and the regulatory agencies to determine reasonable alternatives that could be exercised to satisfy mitigation requirements.

The single upland transect in native grassland accounted for 92.9% vegetative cover of target species, while the remaining three transects in Diegan coastal sage scrub averaged 88.7% cover of target species. For the overall project, upland transects averaged 90.8% target vegetative cover.

Table 5. Success Criteria Analysis-Vegetative Cover

Habitat Type	Success Criteria	12-Month Results*	Pass?
Southern Cottonwood Willow Riparian Forest	Vegetative Cover - 35%	Target Vegetative Cover – 87.5%	Yes
Oak Riparian Forest	Vegetative Cover - 35%	Target Vegetative Cover – 93.7%	Yes
Native Grassland	Vegetative Cover - 30%	Target Vegetative Cover – 92.9%	Yes
Diegan Coastal Sage Scrub	Vegetative Cover - 30%	Target Vegetative Cover – 88.7%	Yes

*Average target vegetative cover for multiple transects within each habitat type.

QUALITATIVE ANALYSIS

Wetland Creation Areas (Sites 5 and 9)

Over the past year, riparian species have continued to become well established throughout the southern cottonwood willow riparian forest basins of sites 5 and 9. Heavy storms that previously swept through the site during the 2007-2008 winter had marginal impacts on plant establishment. Scour from the large volume of water that entered the eastern inlets of each wetland area limited growth in these areas; however, sediment that was captured further west (on-site) has allowed vigorous establishment and development of riparian canopy forming species. This is most evident in site 9, where plantings of arroyo willow, Fremont cottonwood, mule fat, and western sycamore have already attained heights from 6-11 feet. Both wetland basins also feature numerous individuals originating from seed, including species from the hydroseed mix and naturally recruiting riparian species that have originated from upstream sources. Great marsh evening primrose currently dominates the herbaceous stratum; however, large quantities of southwestern spiny rush, arroyo willow, San Diego marsh elder, San Diego sagewort, and western ragweed were observed throughout the understory. Container plantings of these species were observed reaching heights ranging from 18 to 60 inches, while seedlings generally ranged from 4 to 8 inches in height. Species diversity in each wetland basin is excellent, and individuals from each of the 16 originally planted species were observed during the 12-month monitoring. Regular scheduled maintenance from HRS has kept each of the wetland basins relatively free of weeds during the last year; however, fast growing and spreading species such as pampas grass and cyclops acacia (*Acacia cyclops*) should be removed as quickly as possible to prevent any potential spread of these and other species. Currently, surficial soil moisture in these areas is relatively dry, but soil moisture increases at a depth of 2 to 6 inches below grade. A slight increase in irrigation frequency is recommended to ensure that newly developing seedlings have the available soil moisture required for continued growth.

The southern slopes of each wetland basin that transition to slightly more elevated areas of Diegan coastal sage scrub continue to become established with dense oak riparian forest vegetation. The vast majority of this vegetation includes rapid growing shrub species including mugwort and Palmer's sagewort. Most of the coast live oak that were initially planted were observed along these shallow slopes, but many have become crowded and obscured by the quickly growing shrub layer that ranges in height from 3 to 5 feet. Other relatively slow growing species such as toyon (*Heteromeles arbutifolia*), fuchsia flowered gooseberry, California rose, and San Diego marsh elder were also observed in the understory of the dense layer of mugwort and Palmer's sagewort. Weeds were virtually non-existent in these areas, due to recent weeding efforts and establishment of native species from the hydroseed mix. The rapidly developing vegetation has resulted in a moderately diverse multi-tiered habitat that will continue to improve as the slower growing shrub and canopy forming species mature. The current irrigation regime is adequate for the continued development of target oak riparian forest species.

Survival rates of canopy forming riparian species did not achieve the 100% survival that was required for the 6-month success milestone. However, as previously mentioned, many plants may not have been located due to the dense shrub layer that surrounds the slower growing tree species. Due to this, reasonable replanting quantities and suitable locations should be agreed upon by M&A, HRS, and Public Utilities prior to the replanting effort. Replanting should occur in the late winter or early spring when more conducive growing conditions occur.

Wetland Enhancement Areas (Sites 3 and 7)

The wetland enhancement areas located along the northern edge of the primary access path have become exceptionally well established with target plantings. Both enhancement areas have increased their eastern range, where recruits of arroyo willow, mule fat, and other species have capitalized on favorable hydrology and the nearby seed sources of existing, mature individuals. While the increase in range is detrimental to the upland enhancement that was originally intended for the area, the increase in overall wetland area is a favorable result. Irrigation frequency and duration have been reduced in this area, with little affect to the expanding wetland vegetation. Very few weeds were observed in these areas, likely due to the dense coverage of native herbaceous species.

Upland Restoration Areas (Sites 1, 2, 4, 6, and 8)

Upland restoration sites 1 and 6 have continued to develop vigorously in all areas. Dense coverage of Diegan coastal sage scrub species originating from hydroseed has largely filled in areas of bare ground between container plantings. Very few areas of bare ground remain, but several areas remain sparsely vegetated on the western edge of site 1. An irrigation line was recently extended in this area to encourage additional establishment of target upland species. In general, the native upland shrub layer ranges from 3 to 5 feet in height, while larger shrub and tree species such as mule fat and blue elderberry range from 5 to 7 feet in height. Diversity of these areas is excellent, with representatives present from all 13 species that were initially planted and hydroseeded. Several wetland species were also noted within the upland areas, usually in association with malfunctioning or blocked irrigation heads. These species include the occasional cluster of arroyo willow and mule fat, along with a more widespread distribution of great marsh evening primrose. Problematic irrigation heads were repaired and increased risers have been installed by HRS to ensure adequate delivery of water via the system. Additionally, vegetation that obscured the irrigation spray patterns was trimmed to allow proper broadcast of irrigation. Irrigation to these areas has been reduced to discourage future growth of wetland species and to naturalize upland plantings. Many coast prickly pear had partially rotted, likely from too much water. The new irrigation regime and warmer seasonal temperatures should allow the species to recover, however. Similar to the wetland areas, weeds were minimal at the time of monitoring.

Survival rates of coast prickly pear and spiny redberry did not achieve the 100% survival that was required for the 6-month success milestone. As previously mentioned however, some of the species may not have been located due to the dense shrub layer that surrounds each of these slower growing species. Due to this, reasonable replanting quantities and suitable locations should be agreed upon by M&A, HRS, and Public Utilities prior to the replanting effort. Replanting should occur in the late winter or early spring when more conducive growing conditions occur.

The native grassland area (site 2) features large amounts of beardless wild ryegrass, purple needlegrass, and California poppy that originated from the hydroseed mix. The existing population of Mexican rush has increased in range, presumably in response to the irrigation of the area. Several groupings of naturally recruiting arroyo willow were observed in the shallow basins that surround the native grassland area, but these may diminish as the irrigation use decreases and temperatures increase.

The principle areas of wetland and upland plantings at the Rose Canyon Mitigation Project are becoming well established and are capable of supporting the long-term goals for wetland and upland restoration with limited supplemental irrigation. The irrigation system has been scaled down to

operate with less frequency and duration over the last 6 months. Currently, the City is undergoing a mandatory water conservation measure to decrease water usage during this third year of recorded drought. A water use ordinance has been developed that will limit when irrigation can occur; however, run-time restrictions do not apply to landscape irrigation systems using water efficient devices, including those that are used on the Rose Canyon Mitigation Project. As a result, it is not expected that the water use ordinance will have any negative effect on the project.

MAINTENANCE REQUIREMENTS SUMMARY AND RECOMMENDATIONS

The following maintenance activities are recommended for the successful continuation of the project.

1. Ensure that current irrigation regimes are compatible with the new City water use ordinance. Continue the current upland irrigation durations and frequencies, and increase irrigation slightly at each of the wetland creation areas, particularly sites 5 and 9. Raise irrigation risers, trim vegetation around heads, and reposition heads as needed to ensure efficient sprinkler coverage of restored areas.
2. Re-evaluate water usage, soil moisture, and plant health in September to determine if the irrigation regime is suitable for the remainder of the hot and dry summer and early fall.
3. Continue the successful weeding program that has occurred over the last 12 months.
4. Trim vegetation around riparian container plantings and cuttings that are being out-competed by more aggressively growing species. Selective trimming of native species should occur in cases where riparian and other more desirable target species are being out-competed.
5. Replant species that did not achieve 100% survival in the late winter or early spring to take advantage of more conducive growing conditions. Species and replanting quantities are listed in the aforementioned tables 1 and 2.

Literature Cited

Merkel & Associates. 2005. Conceptual Mitigation Plan for the Canyon Sewer Projects within the Rose Canyon Open Space Park.

Merkel & Associates. 2008. Rose Canyon Mitigation Project 0-Month Monitoring Report.

APPENDIX 1. 12-MONTH TRANSECT MONITORING RESULTS

APPENDIX 1A. Year 1 Transect Monitoring Results

Plant Species Observed Along Transects		Percent Cover											
		T-1 (SCWRF)		T-2 (SCWRF)		T-3 (ORF)		T-4 (SCWRF)		T-5 (SCWRF)		T-6 (ORF)	
		with overlap	w/o overlap	with overlap	w/o overlap	with overlap	w/o overlap	with overlap	w/o overlap	with overlap	w/o overlap	with overlap	w/o overlap
Native Species													
<i>Alnus rhombifolia</i>	white alder	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Ambrosia psilostachya</i>	western ragweed	12.5	7.1	42.9	3.6	30.4	7.1	17.9	3.6	16.1	1.8	0.0	0.0
<i>Artemisia douglasiana</i>	mugwort	26.8	12.5	28.6	3.6	62.5	33.9	21.4	7.1	0.0	0.0	92.9	67.9
<i>Artemisia palmeri</i>	Palmer's sagewort	3.6	3.6	26.8	5.4	46.4	23.2	7.1	1.8	41.1	28.6	46.4	8.9
<i>Baccharis pilularis</i>	coyote brush	0.0	0.0	1.8	0.0	0.0	0.0	3.6	0.0	3.6	0.0	1.8	0.0
<i>Baccharis salicifolia</i>	mule fat	8.9	8.9	8.9	8.9	0.0	0.0	1.8	1.8	3.6	1.8	3.6	3.6
<i>Conyza canadensis</i>	horseweed	1.8	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
<i>Cyperus eragrostis</i>	blue elderberry	0.0	0.0	3.6	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
<i>Heliotropium curvassicum</i>	narrow-leaved willow	0.0	0.0	0.0	0.0	1.8	0.0	1.8	1.8	0.0	0.0	0.0	0.0
<i>Heteromeles arbutifolia</i>	toyon	0.0	0.0	0.0	0.0	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
<i>Isocoma menziesii</i>	San Diego goldenbush	0.0	0.0	0.0	0.0	5.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0
<i>Iva hayesiana</i>	San Diego marsh elder	17.9	12.5	0.0	0.0	3.6	1.8	21.4	14.3	8.9	1.8	1.8	0.0
<i>Juncus acutus</i>	southwestern spiny rush	23.2	3.6	5.4	1.8	0.0	0.0	7.1	3.6	3.6	3.6	0.0	0.0
<i>Oenothera elata ssp. hirsutissima</i>	great marsh evening primrose	30.4	21.4	60.7	25.0	0.0	0.0	60.7	37.5	44.6	19.6	0.0	0.0
<i>Platanus racemosa</i>	western sycamore	0.0	0.0	3.6	3.6	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0
<i>Pluchea odorata</i>	salt marsh fleabane	8.9	1.8	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0
<i>Populus fremontii</i>	Fremont cottonwood	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	0.0	0.0
<i>Pseudognaphalium microcephalum</i>	white everlasting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0
<i>Quercus agrifolia</i>	coast live oak	0.0	0.0	1.8	1.8	3.6	3.6	0.0	0.0	1.8	1.8	7.1	5.4
<i>Ribes speciosum</i>	fuchsia flowered gooseberry	0.0	0.0	0.0	0.0	5.4	1.8	0.0	0.0	0.0	0.0	1.8	1.8
<i>Rosa californica</i>	California rose	8.9	5.4	3.6	1.8	7.1	5.4	1.8	0.0	5.4	5.4	1.8	1.8
<i>Salix gooddingii</i>	Goodding's black willow	0.0	0.0	1.8	1.8	0.0	0.0	0.0	0.0	1.8	1.8	0.0	0.0
<i>Salix lasiolepis</i>	arroyo willow	10.7	8.9	55.4	28.6	16.1	10.7	44.6	17.9	33.9	19.6	8.9	8.9
<i>Toxicodendron diversilobum</i>	western poison oak	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0
<i>Xanthium strumarium</i>	cocklebur	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
Non-native Species													
<i>Acacia cyclops</i>	cyclops acacia	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Anagallis arvensis</i>	scarlet pimpernel	3.6	0.0	0.0	0.0	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
<i>Apium graveolens</i>	celery	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Cortaderia selloana</i>	pampas grass	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Cynodon dactylon</i>	Bermuda grass	3.6	1.8	0.0	0.0	0.0	0.0	1.8	1.8	0.0	0.0	0.0	0.0
<i>Euphorbia lathyrus</i>	caper spurge	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Hirschfeldia incana</i>	short-pod mustard	0.0	0.0	5.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
<i>Melilotus alba</i>	white sweetclover	5.4	1.8	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
<i>Picris echioides</i>	bristly ox-tongue	3.6	1.8	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0
<i>Polypogon monspeliensis</i>	annual beard grass	1.8	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bare Ground		7.1	7.1	8.9	8.9	3.6	3.6	7.1	7.1	12.5	12.5	1.8	1.8
Total Percent Vegetative Cover		173.2	92.9	260.7	91.1	185.7	96.4	210.8	92.9	171.5	87.5	167.9	98.2
Total Percent Native Vegetative Cover with overlap		153.6		246.4		183.9		203.6		171.5		166.1	
Total Percent Native Vegetative Cover without overlap			85.7		85.7		94.6		91.1		87.5		98.2
Total Percent Native Target Species for Intended Habitat Type		151.8	85.7	246.4	85.7	178.6	89.3	200.0	91.1	167.9	87.5	166.1	98.2
Total Percent Non-native Cover without overlap			7.1		5.4		1.8		1.8		0.0		0.0

APPENDIX 1B. Year 1 Upland Transect Monitoring Results

Plant Species Observed Along Transects		Percent Cover							
Scientific Name	Common Name	T-7 (NG)		T-8 (DCSS)		T-9 (DCSS)		T-10 (DCSS)	
		with overlap	w/o overlap	with overlap	w/o overlap	with overlap	w/o overlap	with overlap	w/o overlap
Native Species									
<i>Ambrosia psilostachya</i>	western ragweed	0.0	0.0	33.9	17.9	41.1	8.9	58.9	33.9
<i>Artemisia californica</i>	California sagebrush	12.5	8.9	25.0	7.1	57.1	39.3	50.0	21.4
<i>Artemisia palmeri</i>	Palmer's sagewort	5.4	5.4	33.9	16.1	1.8	1.8	12.5	5.4
<i>Baccharis pilularis</i>	coyote brush	1.8	1.8	1.8	1.8	7.1	5.4	7.1	5.4
<i>Baccharis salicifolia</i>	mule fat	0.0	0.0	1.8	1.8	0.0	0.0	0.0	0.0
<i>Datura wrightii</i>	western jimsonweed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Deinandra fasciculata</i>	fascicled tarplant	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
<i>Eriogonum fasciculatum</i> var. <i>fasciculatum</i>	flat-top buckwheat	0.0	0.0	16.1	8.9	23.2	8.9	17.9	10.7
<i>Eschscholzia californica</i>	California poppy	67.9	44.6	0.0	0.0	0.0	0.0	0.0	0.0
<i>Isocoma menziesii</i>	San Diego goldenbush	0.0	0.0	3.6	3.6	0.0	0.0	0.0	0.0
<i>Juncus arcticus</i> var. <i>mexicanus</i>	Mexican rush	7.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0
<i>Leymus triticoides</i>	beardless wild ryegrass	53.6	19.6	0.0	0.0	0.0	0.0	0.0	0.0
<i>Lotus scoparius</i> var. <i>scoparius</i>	coastal deerweed	0.0	0.0	30.4	16.1	44.6	23.2	23.2	16.1
<i>Mimulus aurantiacus</i>	San Diego monkeyflower	0.0	0.0	1.8	0.0	1.8	0.0	0.0	0.0
<i>Nassella pulchra</i>	purple needlegrass	14.3	5.4	0.0	0.0	0.0	0.0	0.0	0.0
<i>Oenothera elata</i> ssp. <i>hirsutissima</i>	great marsh evening primrose	1.8	0.0	3.6	0.0	1.8	0.0	7.1	0.0
<i>Pseudognaphalium microcephalum</i>	white everlasting	3.6	3.6	0.0	0.0	0.0	0.0	0.0	0.0
<i>Rhus integrifolia</i>	lemonadeberry	0.0	0.0	1.8	1.8	0.0	0.0	0.0	0.0
<i>Rosa californica</i>	California rose	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
<i>Rumex crispus</i>	curly dock	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
<i>Salix lasiolepis</i>	arroyo willow	5.4	1.8	5.4	3.6	1.8	1.8	5.4	5.4
<i>Salvia apiana</i>	white sage	0.0	0.0	12.5	1.8	14.3	3.6	8.9	0.0
<i>Salvia mellifera</i>	black sage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Sambucus mexicana</i>	blue elderberry	0.0	0.0	5.4	5.4	0.0	0.0	0.0	0.0
<i>Toxicodendron diversilobum</i>	western poison oak	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Verbena lasiostachys</i> var. <i>lasiostachys</i>	western vervain	7.1	1.8	19.6	7.1	0.0	0.0	1.8	0.0
Non-native Species									
<i>Anagallis arvensis</i>	scarlet pimpernel	0.0	0.0	7.1	1.8	0.0	0.0	0.0	0.0
<i>Bromus diandrus</i>	ripgut grass	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Bromus madritensis</i> ssp. <i>rubens</i>	red brome	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Cortaderia selloana</i>	pampas grass	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
<i>Melilotus albus</i>	white sweetclover	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
Bare Ground		1.8	1.8	5.4	5.4	7.1	7.1	1.8	1.8
Total Percent Vegetative Cover		187.5	98.2	203.6	94.6	194.6	92.9	198.2	98.2
Total Percent Native Vegetative Cover with overlap		183.9		196.4		194.6		194.6	
Total Percent Native Vegetative Cover without overlap			98.2		92.9		92.9		98.2
Total Percent Native Target Species for Intended Habitat Type		167.9	92.9	167.9	82.1	191.1	91.1	180.4	92.9
Total Percent Non-native Cover without overlap			0.0		1.8		0.0		0.0

APPENDIX 2. PHOTO POINTS



Panoramic view to the north at newly establishing vegetation located at the eastern cut wetland creation area. August 18, 2009.



Photo Point 1. Looking west along Transect 1 in the eastern cut wetland creation area. July 1, 2009.



Photo Point 2. Looking northeast along Transect 2 in the eastern cut wetland creation area. July 1, 2009.



Photo Point 3. Looking west along Transect 3 in the eastern cut wetland creation area. July 1, 2009.



Photo Point 4. Looking southwest along Transect 4 in the eastern cut wetland creation area. July 2, 2009.



Photo Point 5. Looking northwest at Transect 5 in the central cut wetland creation area. July 1, 2009.



Photo Point 6. Looking west at Transect 6 in the central cut wetland creation area. July 2, 2009.



Photo Point 7. Looking west at Transect 7 in the west fill upland enhancement area. July 2, 2009.



Photo Point 8. Looking southwest at Transect 8 in the west fill upland enhancement area. July 2, 2009.



Photo Point 9. Looking west at Transect 9 in the central fill upland enhancement area. July 2, 2009.



Photo Point 10. Looking north at Transect 10 in the central fill upland enhancement area. July 2, 2009.



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

City of San Diego
Public Utilities Department



September 2012

Cover: Left top: Flat-top buckwheat (*Eriogonum fasciculatum*), Right top: coast barrel cactus (*Ferocactus viridescens*), Left bottom: toyon (*Heteromeles arbutifolia*), Right bottom: mountain mahogany (*Cercocarpus minutiflorus*)

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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 40-14, 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 2011 through June 2012. The report provides the status of all Program mitigation sites and a summary on planning and implementation of projects within the reporting year, including redirection of flow (ROF) studies, long term access planning and implementation, construction and emergency projects, and 25 month revegetation and restoration projects.

LONG TERM ACCESS PROJECTS

Long Term Access Projects are to provide access paths for routine maintenance and emergency repairs. One of the first steps in determining whether an access path is needed is to prepare a redirection of flow (ROF) study. A ROF study evaluates the economic feasibility of removing all or part of the sewer from the canyon versus providing access to the sewer if it remains in the canyon.

When redirection of flow is found to be infeasible from all or portions of environmentally sensitive lands/canyons, City staff will develop a Long Term Maintenance and Emergency Access Plan in accordance with Policy 400-13. Staff then prepare and submit Process 2 (Substantial Conformance Review- SCR) applications to the Development Services Department (DSD) for a determination whether the proposed mitigation, restoration, and access planning for individual canyon areas or project is in conformance with the Programmatic Environmental Impact Report (PEIR) and Program master permits. Separate permits or clearances are obtained from the regulatory agencies prior to implementation of long term access projects.

Public Utilities previously identified 15 canyons as priority canyons for long term access implementation. 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 is starting on the permits and developing contract documents for constructing improvements to streambed crossing areas.
- 45th & Boston—Implementation of long term access for this canyon has been completed. The paths have been surveyed and marked, vegetation has been cleared, and wood chips have been installed on the path. Public Utilities has acquired all access rights with the signing of the last easement in July 2012.
- Alvarado—The design for this project is complete. Public Utilities staff is starting on the permits, property acquisition, and developing contract documents.
- Black Mountain—Staff have completed all of the field work for this canyon. The access paths have been surveyed and the legal descriptions and plat maps have been completed. An easement with the County of San Diego has been recorded on the property. Staff is in the process of finalizing a Memorandum of Understanding (MOU) with the Park and Recreation Department.
- Carroll Canyon—The biological report has been submitted and is under review for Long Term Access improvements in Carroll Canyon.

- Park Mesa—Construction of the long term access path was completed in summer of 2011. All easements have been acquired with the exception of the United States Navy which is currently under review.
- Rancho Mission – On the east side of Margerum Avenue, access path improvements by City forces were completed in November 2011. The design for an improved streambed crossing on the west side of Margerum Avenue has been completed. Public Utilities staff is starting on the permits, property acquisition, final design review, and developing construction contract documents.
- Tecolote – Final design for East Tecolote Canyon was completed in June 2012. Public Utilities staff is starting on the permits and developing contract documents for constructing access path improvements.



Park Mesa – Long Term Access Path

This past year, Public Utilities staff started working on the design and partial implementation on four new Long Term Access (LTA) projects:

- South Chollas —Public Utilities has prepared a LTA Plan and will continue with obtaining technical studies to support the SCR submittal.
- North Tecolote Canyon – This canyon has an approved conceptual long term access plan. Consultants are working on the design of access paths and streambed crossing improvements. The design work also includes a Geotechnical Report and a Technical Memorandum with design recommendations.

- VanNuys Canyon – Public Utilities received and approved a proposal for a new Redirection of Flow Study and Access Recommendation for the canyon.
- Mt. Elbrus Bridge – In November, 2011, WWC installed a prefabricated fiberglass bridge in Mt. Elbrus Canyon.

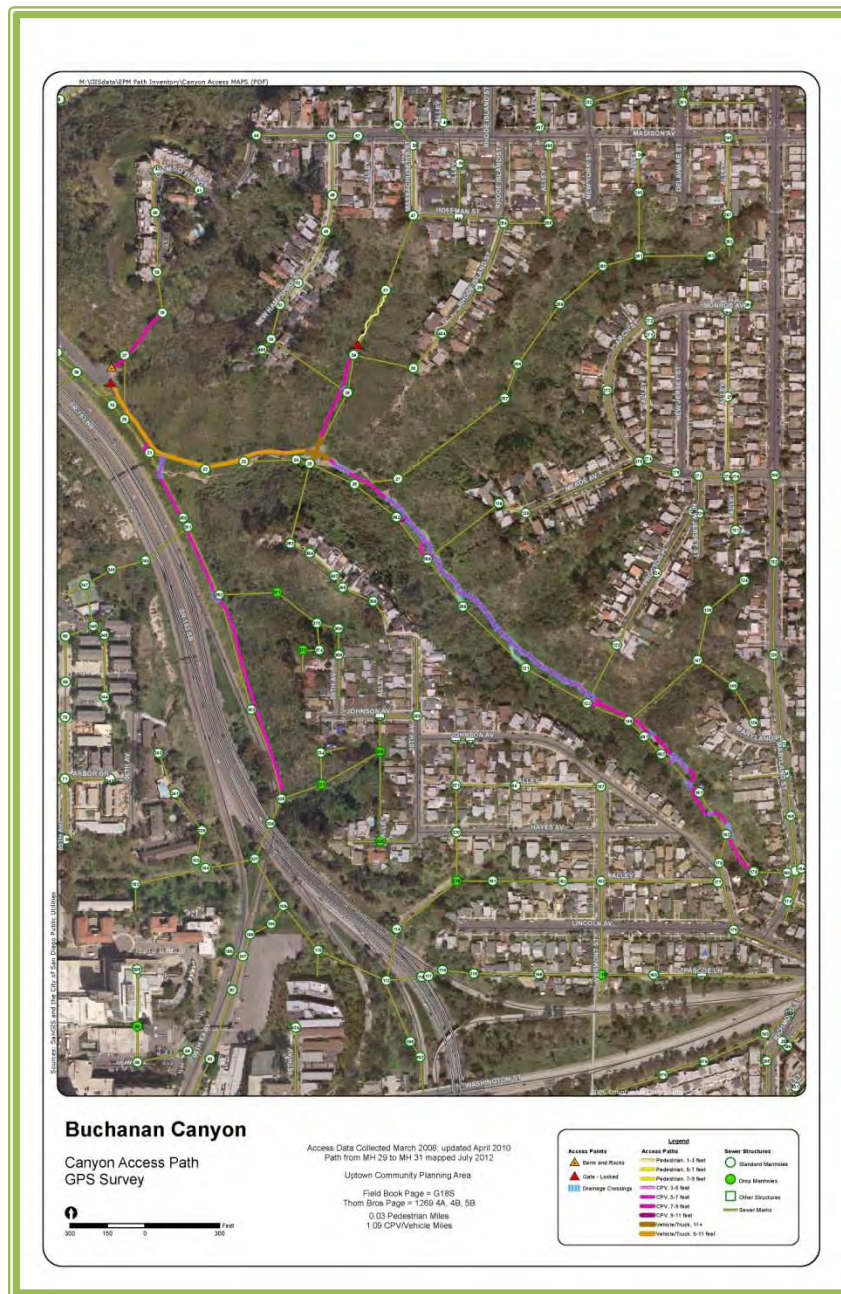


Mt. Elbrus Canyon- New Access Bridge



North Tecolote Canyon – Geotechnical Sampling Near Crossing

In addition to the above programs, the Department has increased its efforts to inventory and map existing access to sewers in canyons. This inventory provides information on existing access conditions, identifies access needs and areas of concern (i.e. erosion), and facilitates ongoing maintenance. To date, 152.4 miles of pedestrian and vehicular paths have been mapped with the GPS data for 133 canyon areas.



Access Path Inventory Map for Buchanan Canyon

CONSTRUCTION AND EMERGENCY PROJECTS

During this reporting period two Capital Improvement Program (CIP) projects were completed or are still in construction: USIU-Miramar Trunk Sewer Replacement 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, Water Group 616, Group Job 691, Group Job 703a, Group Job 799, Alvarado Trunk Sewer Phase 3, and Skylark Canyon Trunk Sewer. These jobs are managed by the Engineering and Capital Projects Department.

Since July 2011, emergency projects and/or pipeline repair projects occurred in the following canyons or environmentally sensitive areas:

Emergencies

- San Diego Mission Road Manhole 111 (manhole raising and cleaning)
- Pump Station 64 (spill and clean-up)
- Euclid and Menlo (pipe repair)
- 10th Ave (pipe repair)
- Middle Rose Manhole 160 (access creation and cleaning)
- Mimulus Way (pipe repair)
- Hotel Circle South (pipe repair)

Other construction projects

- Manhole 190 (manhole raising)
- Otay River Sewer (path maintenance)
- Mt. Elbrus (spot repair)
- Admiral Baker (manhole raising)
- Mission Valley (spot repair)
- Lookout Drive (spot repairs)
- Keighly Street (spot repair)
- Washington Creek (spot repair)
- Yerba Santa (spot repair)
- Laurel Street (spot repair)
- Middle Rose Manhole 9 (cleaning)

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.



San Diego Mission Road MH 111 Emergency Raising & Cleaning



Hotel Circle South Emergency Pipe Pillar 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, 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 sites 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, eight projects were completed. In addition to eighteen ongoing projects, six 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 Page 37-38 for the August 2012 Revegetation and Restoration Projects Status update table.



Mission Center Canyon Restoration Project

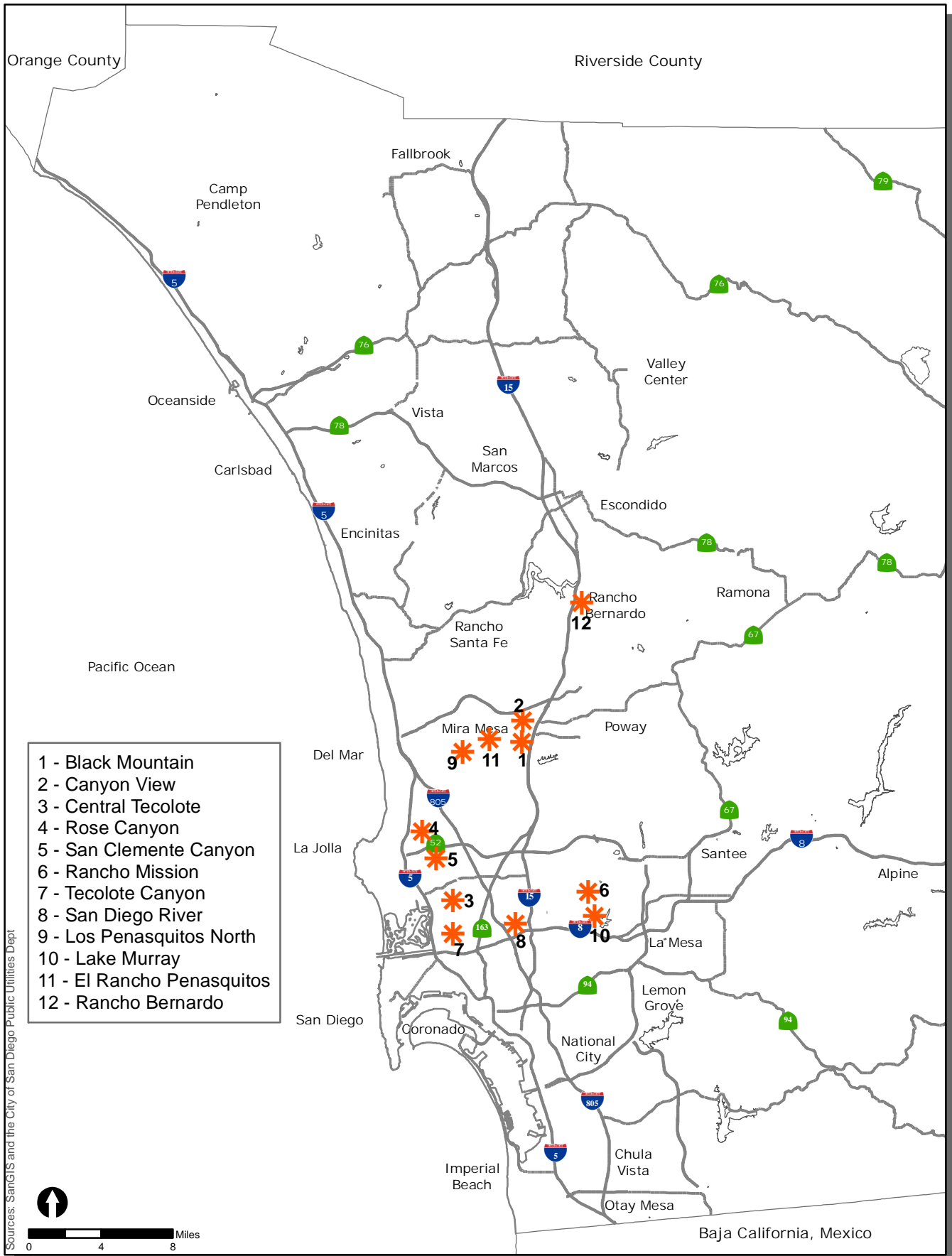


Rose Canyon Sinkhole Restoration Project

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 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 being planned. Project impacts and mitigation assignments are tracked internally within the Canyon Database.

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



**Mitigation Sites
Overview Map**

**FIGURE
A**

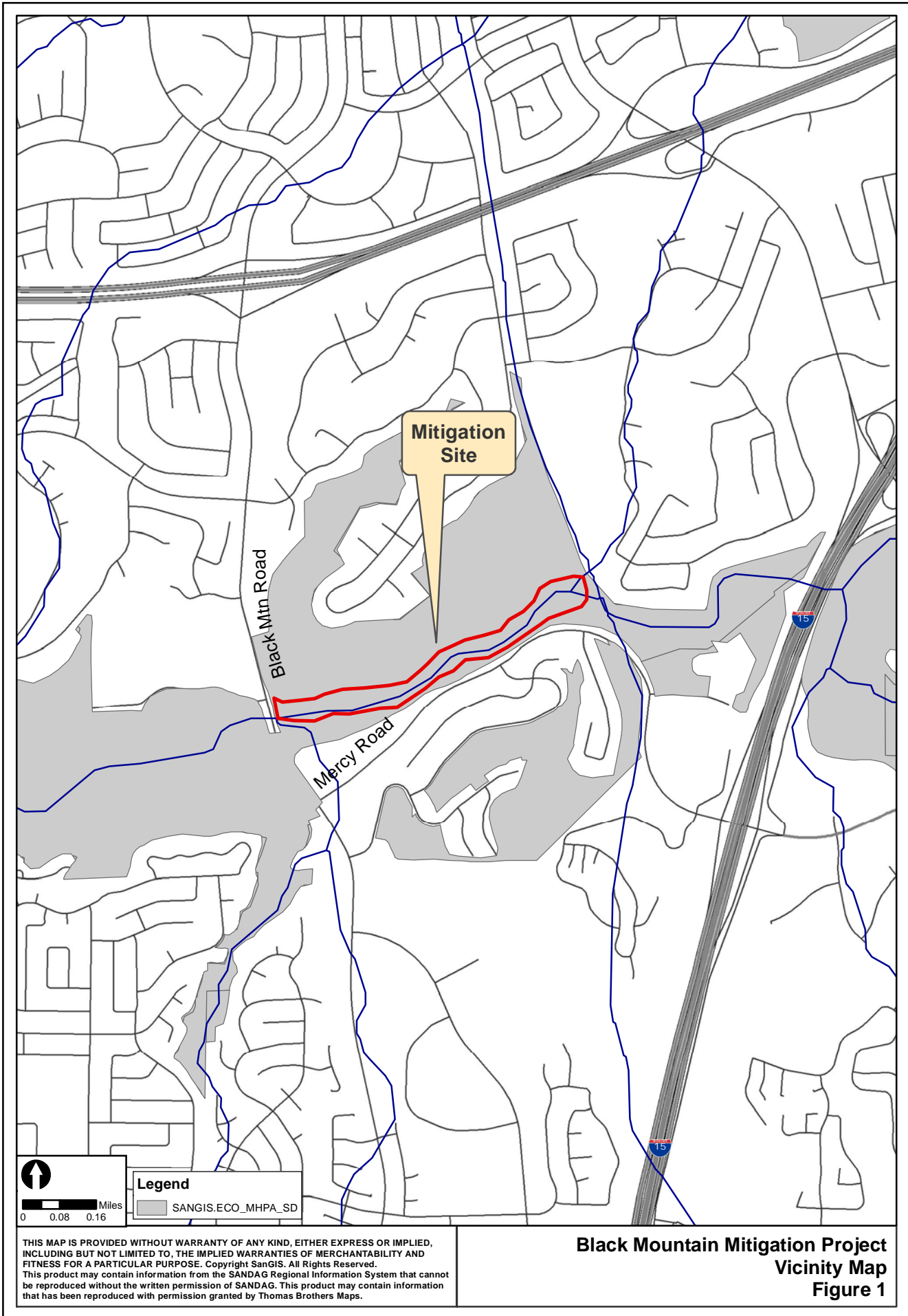
Black Mountain Wetland Mitigation Project

A conceptual plan is being prepared for this project, to be located west of I-15, east of Black Mountain Road, and north of Mercy Road in Los Penasquitos Canyon (Figure 1). The project area currently supports a large area of invasive non-native plant species that have little value for wildlife. The site currently supports eucalyptus (*Eucalyptus* spp.), Canary Island date palm (*Phoenix canariensis*), Mexican fan palm (*Washingtonia robusta*), Brazilian pepper tree (*Schinus terebinthifolius*), pampas grass (*Cortaderia selloana*), and tamarisk (*Tamarix parviflora*). The goal of the project will be to eradicate 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.

Project implementation is planned for 2013.



Black Mountain Mitigation Project Site



Legend
 SANGIS.ECO_MHPA_SD

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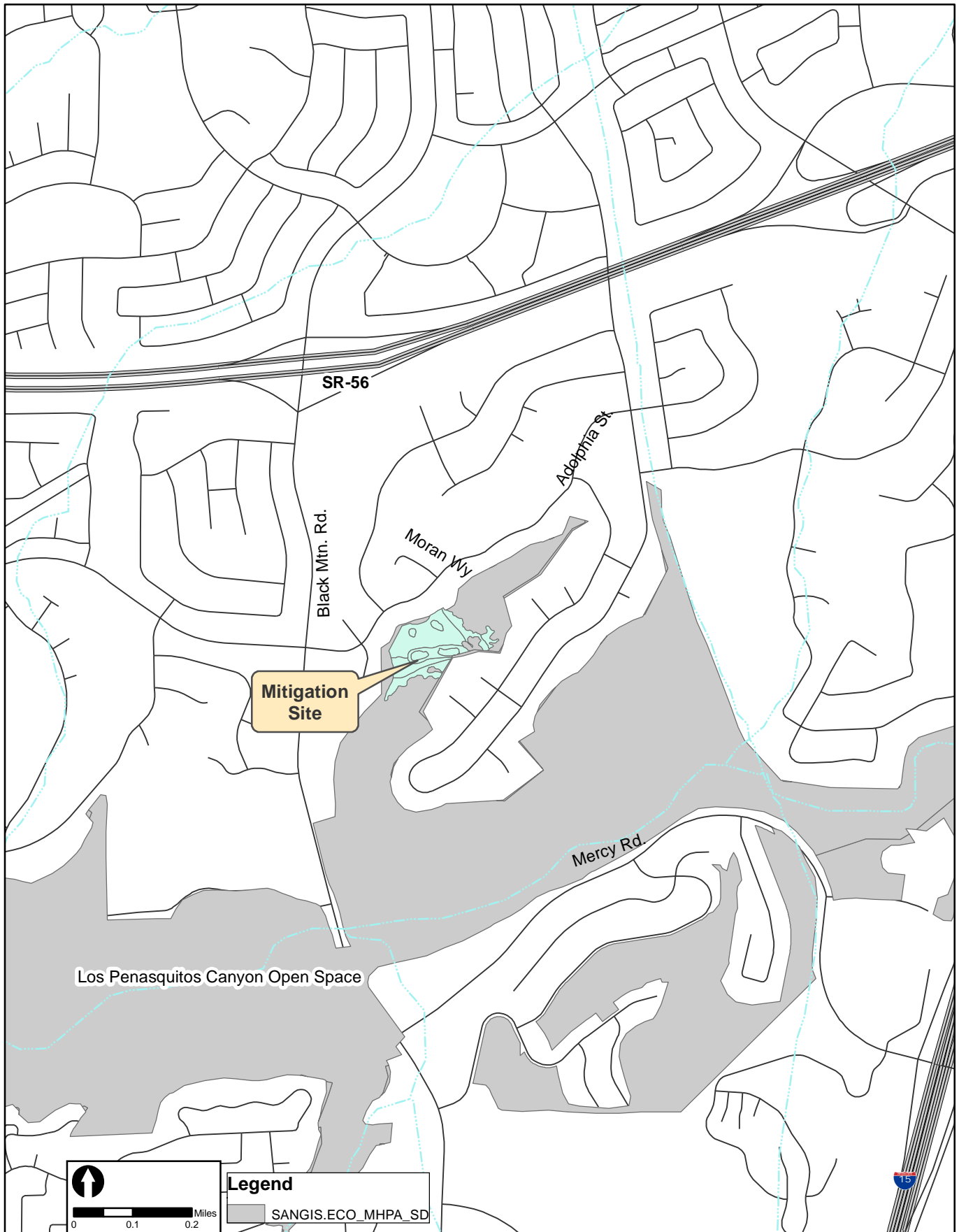
**Black Mountain Mitigation Project
 Vicinity Map
 Figure 1**

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*), tocalote (*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 120 day Plant Establishment Period (PEP) began in June 2012. The site will be maintained and monitored for the 120-day PEP period and an additional 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.



Canyon View Upland Restoration Mitigation Project site



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

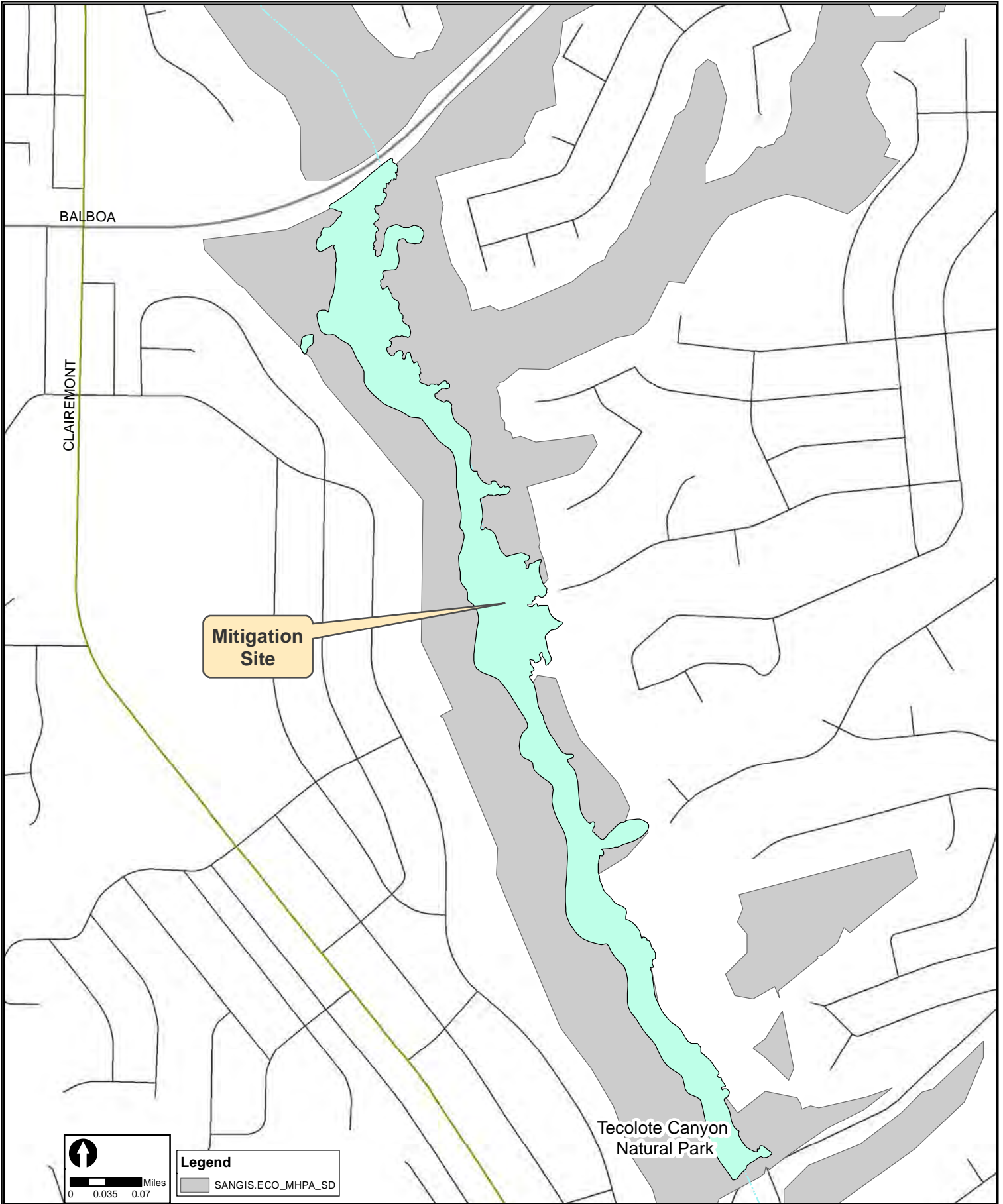
Central Tecolote Enhancement Mitigation Project

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 3.5 acres of riparian enhancement and approximately 3.2 acres of native grassland/coastal sage scrub restoration in addition to a 20+ acre 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 (*Brassica* sp.), and yellow sweetclover (*Melilotus indicus*). A temporary above ground irrigation system was installed to support the native plant and seed material was installed onsite. The 120 day Plant Establishment Period (PEP) began in July 2011, and ended November 2011, thereby initiating year-1 of the 5 year maintenance and monitoring period. The site will be maintained and monitored for a 5-year period to ensure successful establishment of native species and until agency sign off.



Central Tecolote Enhancement Mitigation Project



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**Central Tecolote Mitigation
Vicinity Map
Figure 3**

Rose Canyon Mitigation Project

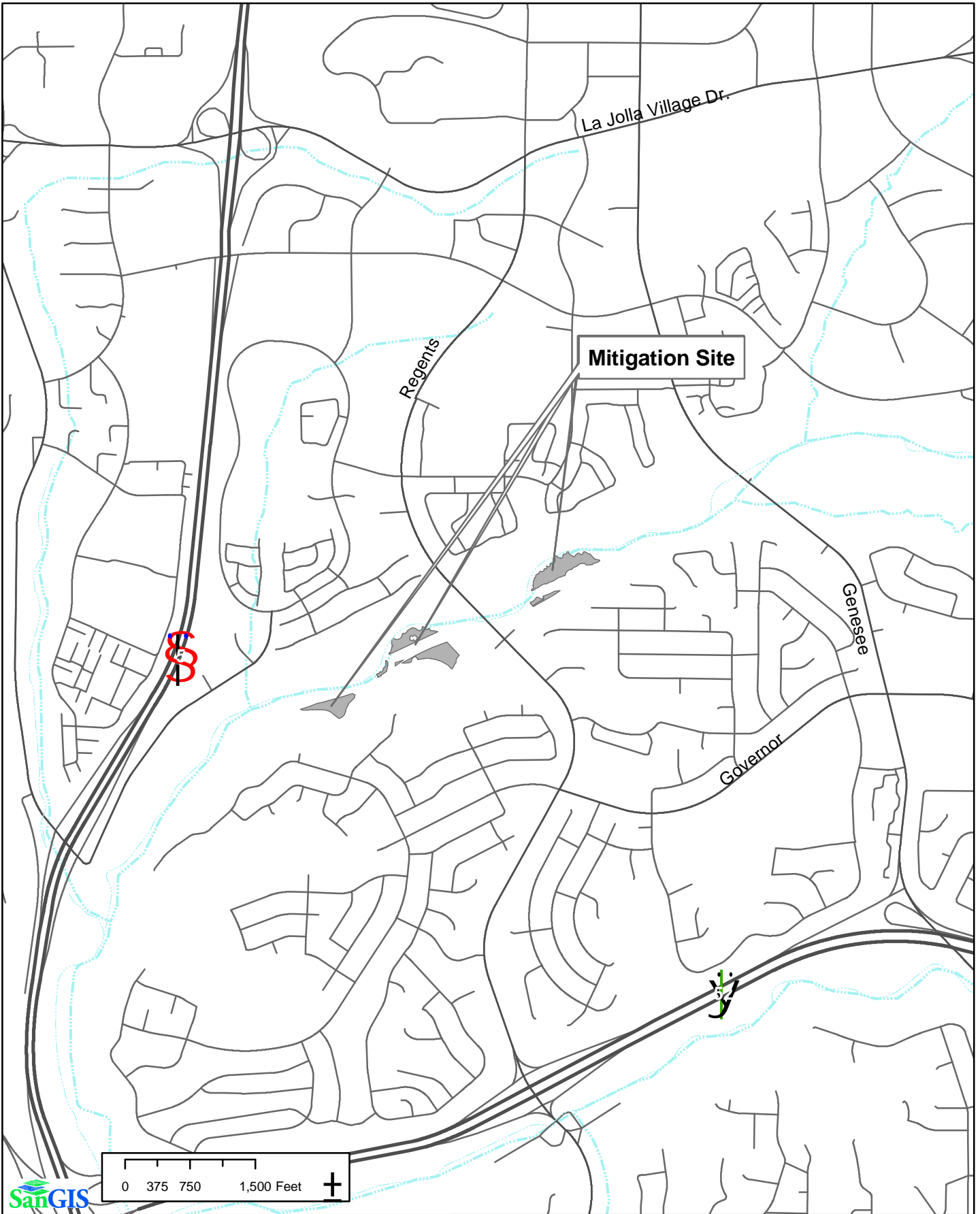
The Rose Canyon Mitigation Project is located in the Rose Canyon Open Space Park, starting approximately one half mile west of Genesee Avenue and continuing another one half mile further west into the park (Figure 4).

The project scope involved grading areas of non-native grassland adjacent to Rose Creek to allow for the establishment of suitable wetland habitat as well as filling areas to restore upland habitat. Approximately 4.36 acres of oak riparian forest, southern cottonwood-willow riparian forest, and mule fat scrub were created adjacent to Rose Creek. Approximately 3.67 acres of Diegan coastal sage scrub 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 120-day PEP was accepted and the project entered long-term maintenance on July 15, 2008. The project is currently in its fourth year of maintenance. Irrigation was turned off in the Fall of 2011. The site has met and exceeded year 5 success standards with over 90% vegetative cover in the wetlands and over 80% in the uplands. The site will continue to be monitored and maintained through the completion of the 5 year long-term maintenance period.



Rose Canyon Mitigation Project site



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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 (San Clemente Canyon Maintenance and Access Plan, emergency repairs, etc) 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 plant establishment period for the site was met in September 30, 2008. The upland and wetland planting areas for the project have shown steady establishment of target species. The majority of the upland planting areas are dominated by established Diegan coastal sage scrub and California native grassland species. One upland area at the Regents site has naturally trended to a transitional wetland habitat, and additional container plants were installed in 2011 to enhance diversity within this area. Additional sycamore trees were planted in the winter of 2011/2012 following a request from the community. The project will start its 5th year of maintenance and monitoring in September 2012.



San Clemente Canyon Mitigation Project site



Miles
0 0.1 0.2

Legend

 SANGIS.ECO_MHPA_SD

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

Rancho Mission Canyon Wetland Enhancement Project

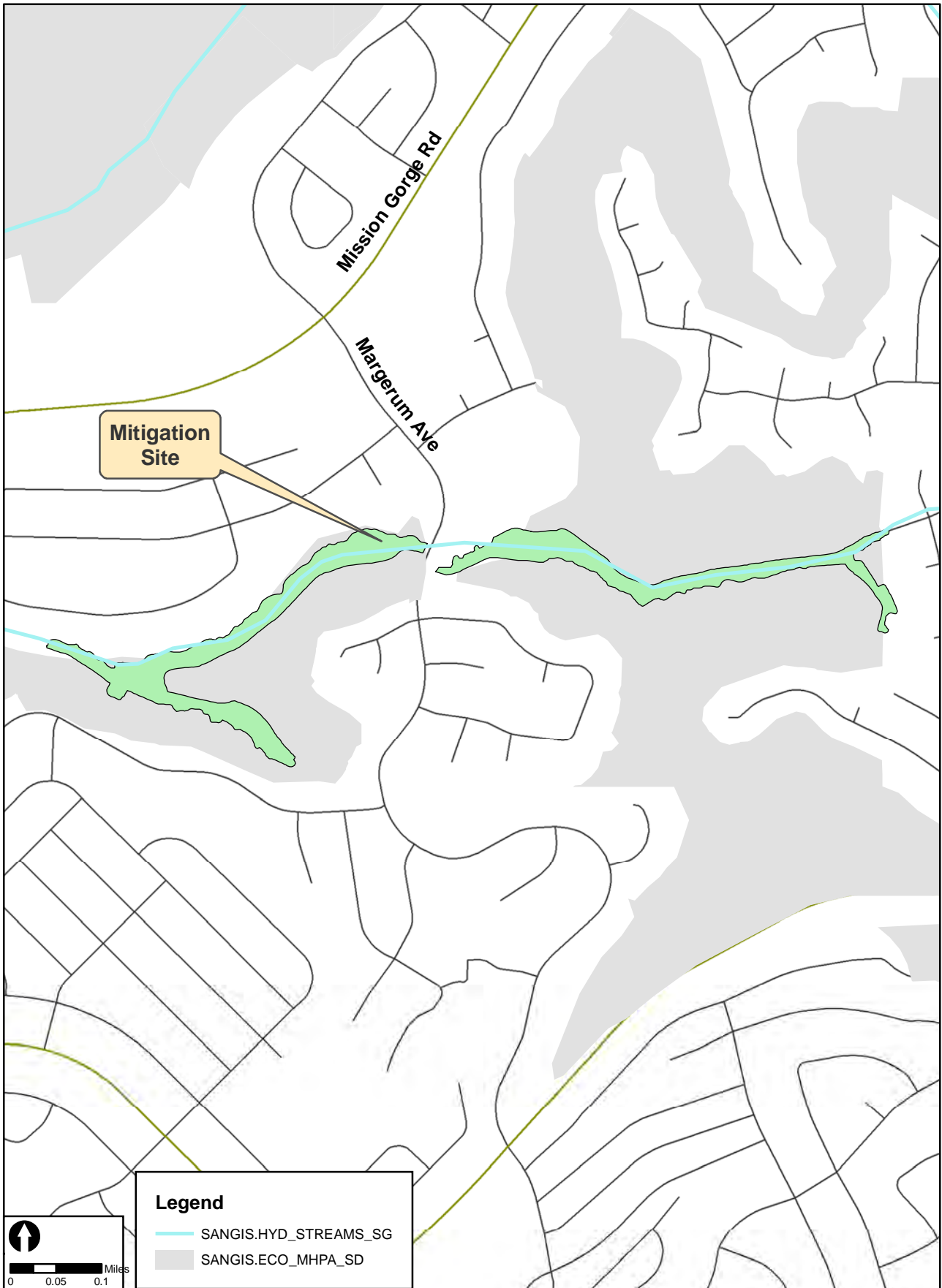
The Rancho Mission Canyon Wetland Enhancement Project is located in the City's Rancho Mission Canyon Open Space Park, south of Mission Gorge Road, north of Navajo Road, and on either side of Margerum Way in the Allied Gardens Community of the Navajo Community Planning Area (Figure 6).

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. An additional 4.5 acres is being maintained weed free, but is not planted. The total area of habitat enhancement runs the entire canyon bottom and encompasses more than 13.5 acres. Exotic species targeted for eradication include: salt cedar (*Tamarix* sp.), myoporum (*Myoporum laetum*), Brazilian pepper (*Schinus terebinthifolius*), pampas grass (*Cortaderia selloana*), Mexican fan palm (*Washingtonia robusta*), and eucalyptus (*Eucalyptus* spp.).

The site is currently in year 5 of the long-term maintenance and monitoring period. Year 4 annual quantitative monitoring documented high species diversity and native vegetative cover percentages of 98.6%. The enhancement site has exceeded year 4 and 5 success criteria for native cover. Irrigation has been shut off to allow the wetland transitional and wetland areas to naturalize and establish. The site will be monitored and maintained for the remainder of the fifth year of maintenance; agency approval and sign off is expected in the spring of 2013.



Rancho Mission Canyon Wetland Enhancement Project



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**Rancho Mission Mitigation
 Vicinity Map
 Figure 6**

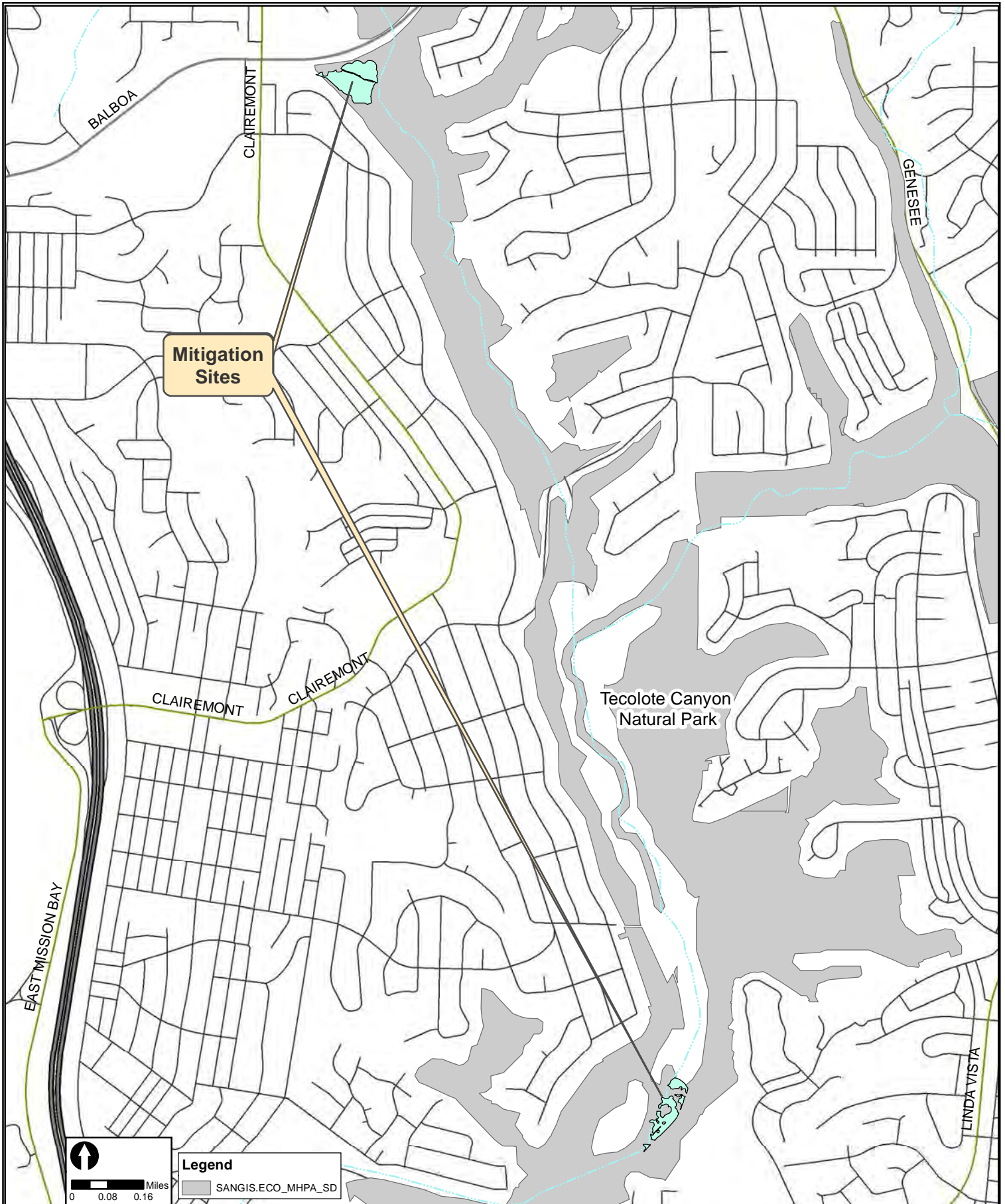
Tecolote Canyon Mitigation Project

The Tecolote Canyon Mitigation Project provides mitigation for upland and wetland impacts associated with implementation of past emergency and long term access path impacts within Tecolote, Mt. Elbrus, East Clairemont, and Manning Canyons. The Balboa site is located south of Balboa Avenue, and the Grove site is located south of the Tecolote Golf Course and north of the University of San Diego (Figure 7).

The project includes the creation of 1.6 acres of wetland habitat (southern willow scrub and oak riparian forest) and restoration of 2.91 acres upland habitat (Diegan coastal sage scrub). Construction was initiated in February 2007 and continued until July 31, 2007. Final acceptance of the 120-day plant establishment period occurred in January 2008, which marked the beginning of the five-year maintenance and monitoring period. The four year success criteria of 75% coverage of wetland vegetation transects and 60% coverage of upland vegetation transects have been exceeded by all plant communities. The site is currently in the fifth year of maintenance and monitoring.



Tecolote Canyon Mitigation Project site



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**Tecolote Canyon Mitigation
Vicinity Map
Figure 7**

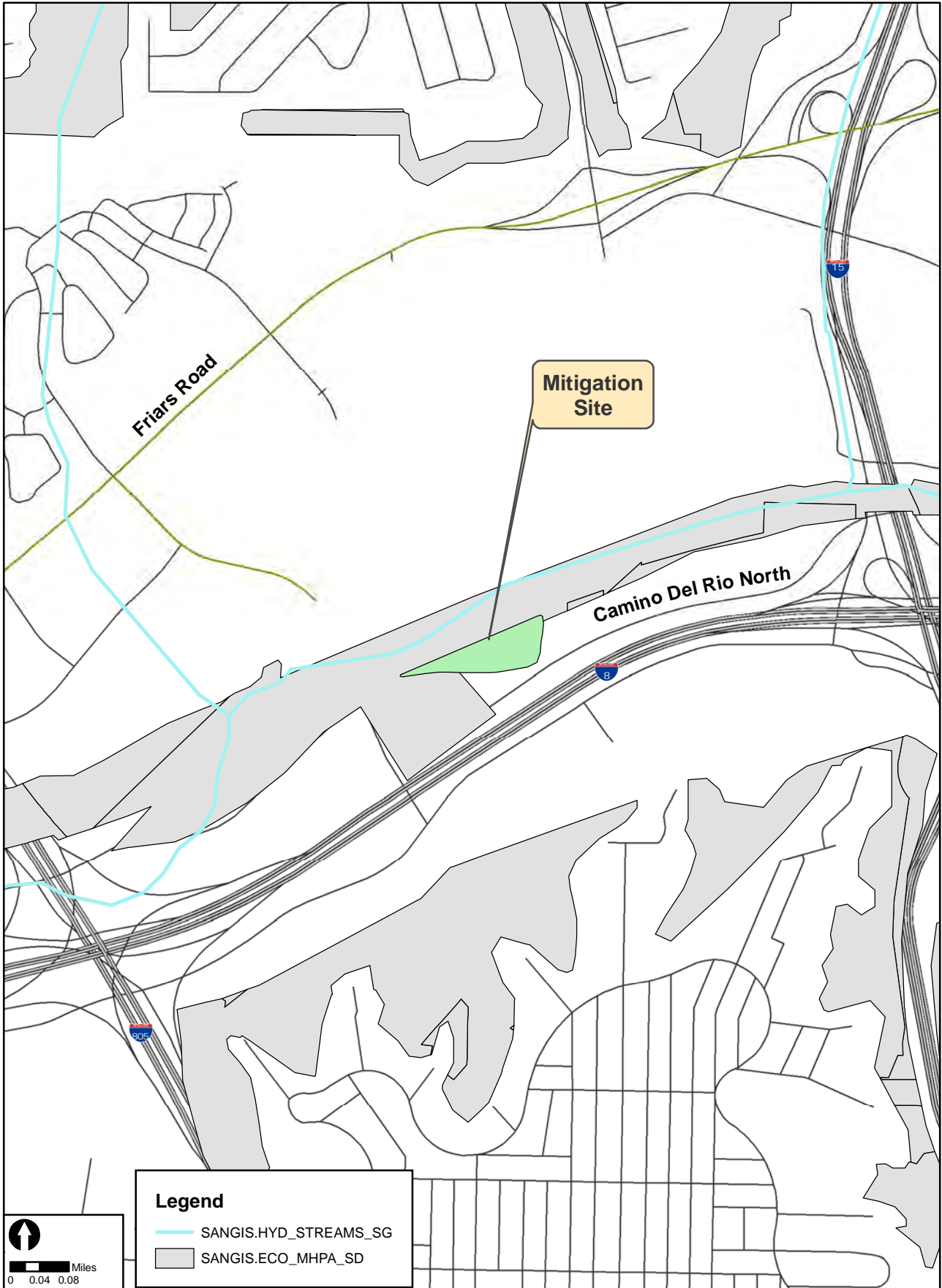
San Diego River Wetland Creation Project

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 approximately 3.43 acres of native riparian habitat and approximately 2 acres of Diegan coastal sage scrub habitat. The project site was graded in the fall of 2005 to create a basin along the southern bank of the San Diego River. The basin was planted and hydroseeded with native species in the winter of 2005/2006 followed by a 120-Day Plant Establishment Period. The long-term maintenance, monitoring, and reporting program started June 14, 2006 and the site successfully completed 5 years of maintenance and monitoring in June of 2011. Native vegetation has established well with wetland trees exceeding 14 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 songbird nests observed in the wetland area. A MHPA boundary line adjustment was approved by the Wildlife Agencies and is being finalized by the City to add the mitigation site into the MHPA.



San Diego River Wetland Creation Project site



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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).

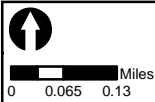
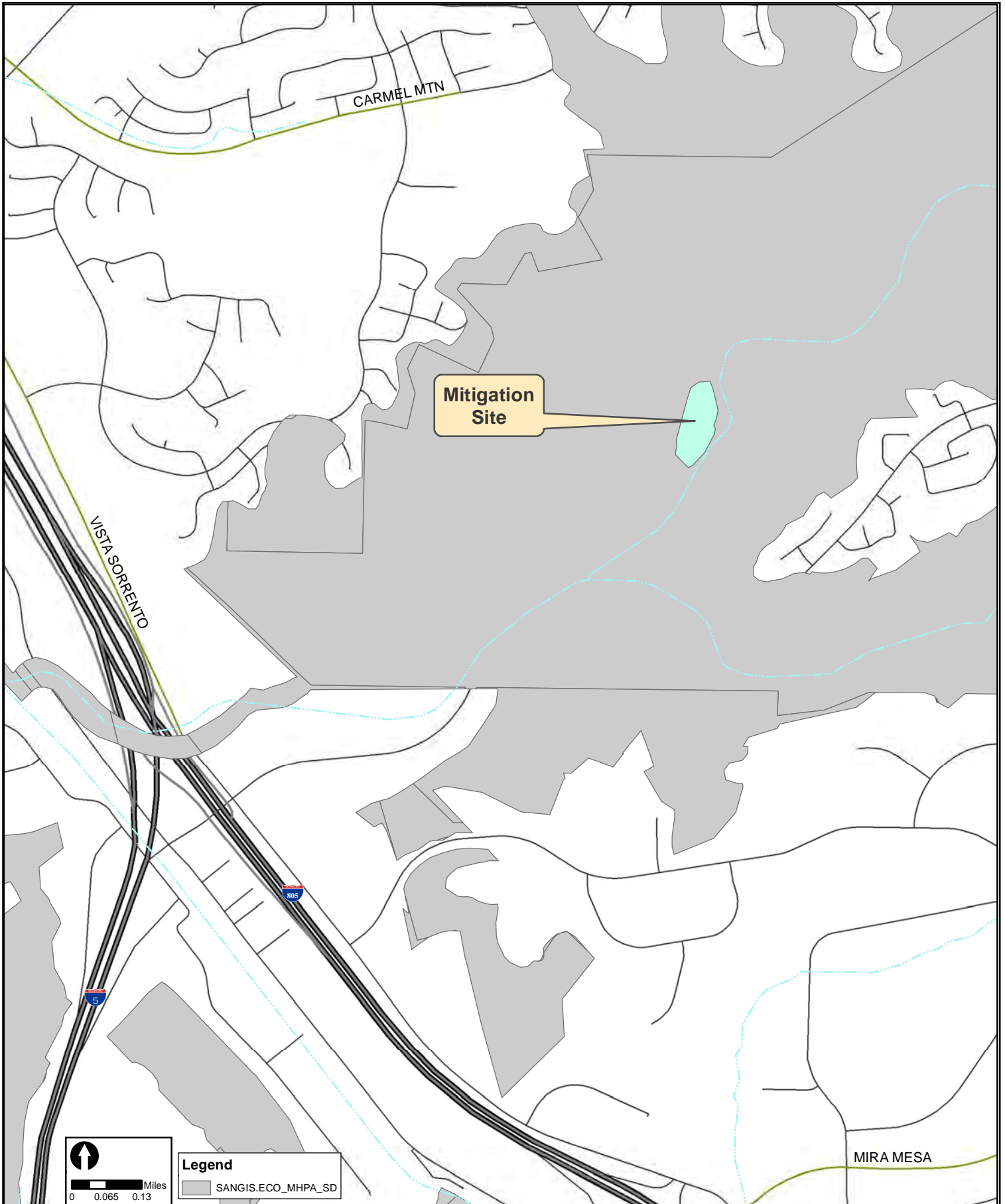
The project includes the creation of 3.8 acres of wetland habitat, including 3.15 acres of southern willow scrub, 0.43 acres of cottonwood/sycamore woodland, and 0.22 acres of freshwater marsh. The site also includes one acre of coastal sage scrub habitat to serve as a buffer on the north edge of the site.

The project site is characterized by a diverse mosaic of native vegetative cover including trees, shrubs, and a herbaceous layer. The site provides high quality habitat for a number of wildlife species which have been observed foraging onsite.

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



Los Peñasquitos North Wetland Creation Project site



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**Los Penasquitos North Wetland Creation Project
 Vicinity Map
 Figure 9**

Lake Murray Mitigation Project

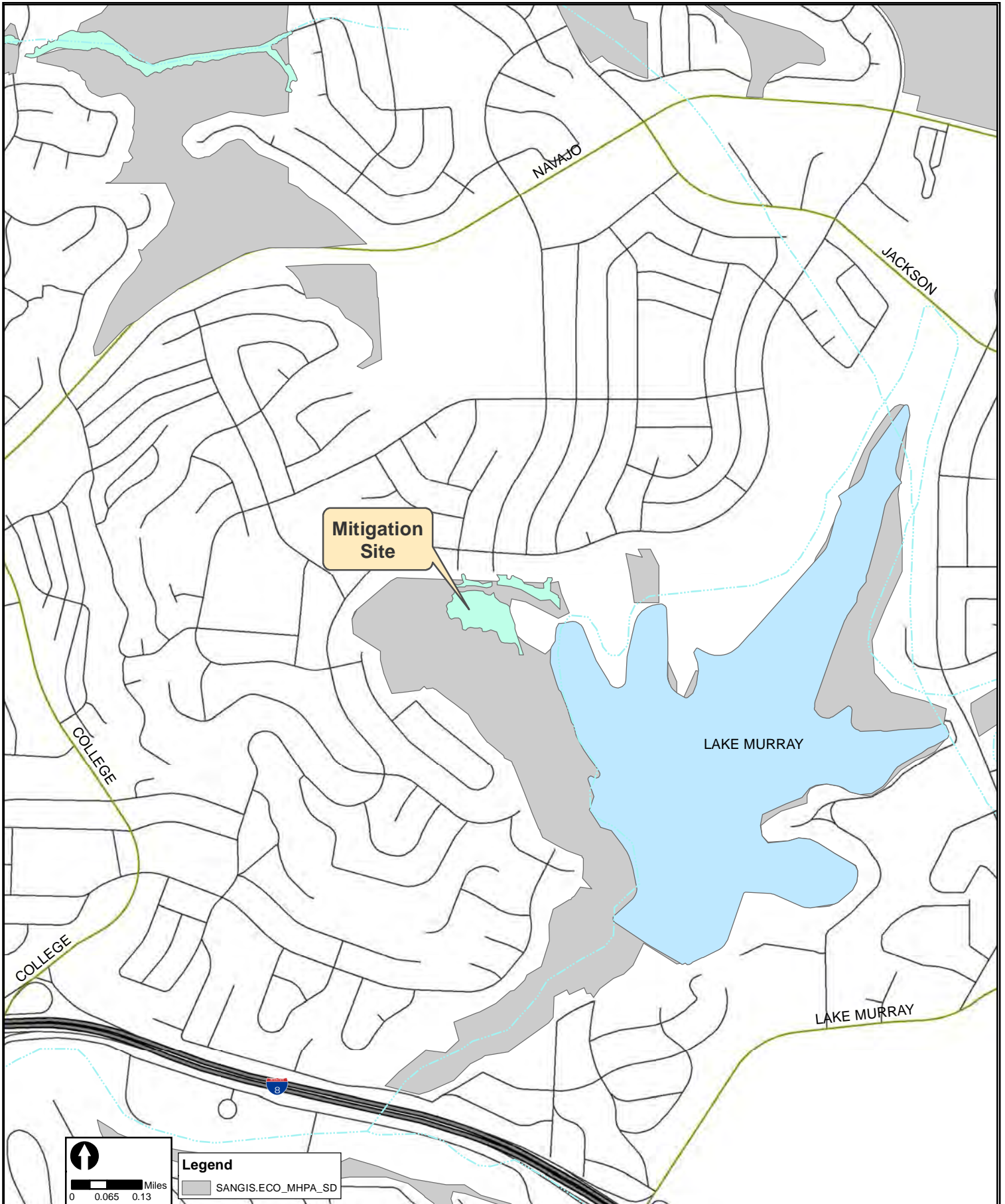
The Lake Murray Mitigation Project is in the City of San Diego's Mission Trails Regional Park. It is located in the area just west of Lake Murray in the Del Cerro neighborhood of the Navajo Community (Figure 10).

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). Gnatcatcher and quail have regularly been spotted foraging within the upland area.

The site was installed September 2005 through June 2006. 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.



Lake Murray Mitigation Site



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**Lake Murray Mitigation Project
Vicinity Map
Figure10**

El Rancho Peñasquitos Wetland Enhancement Project

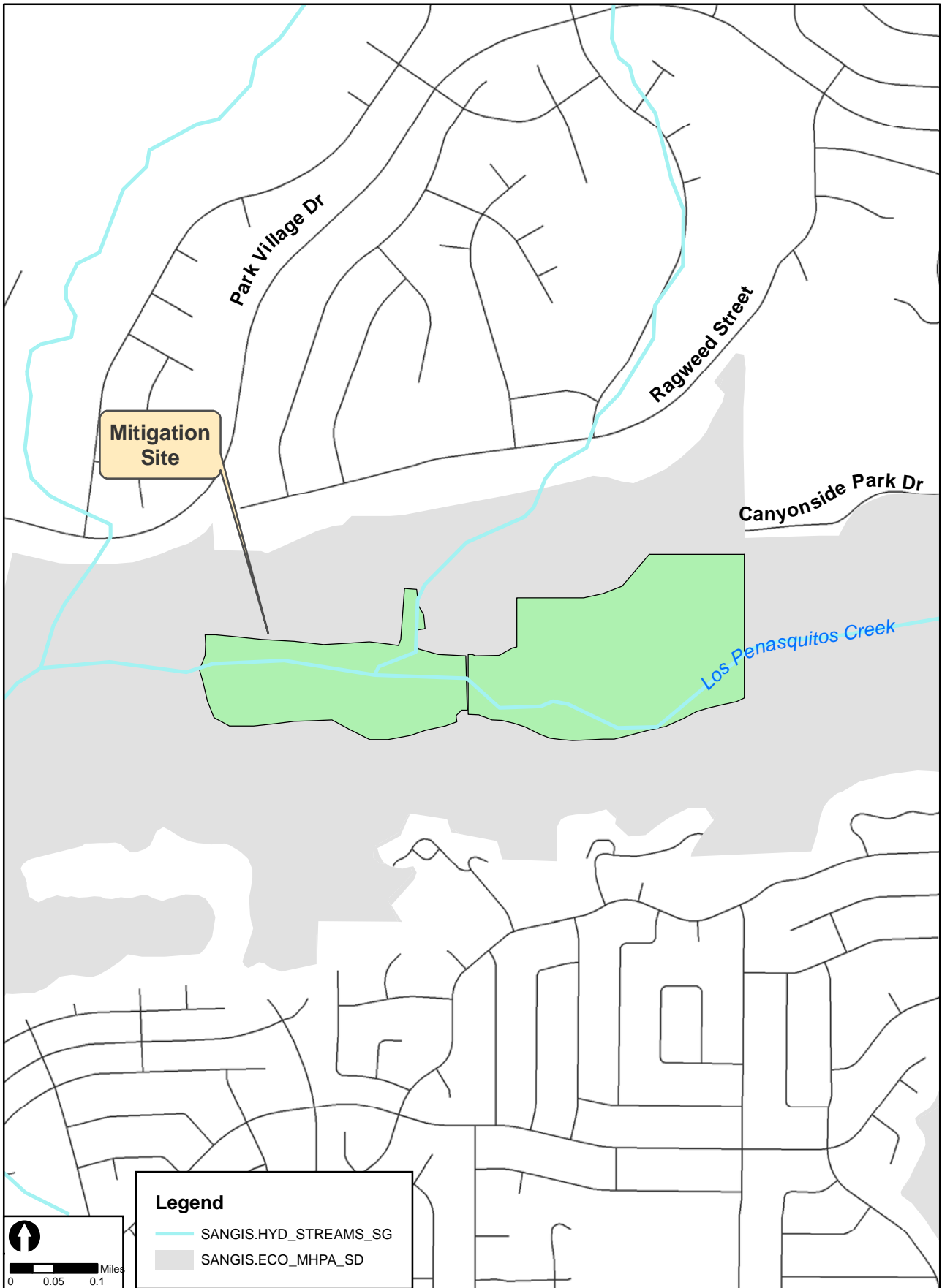
The mitigation site is located along Los Peñasquitos Canyon approximately 0.5 mile west of Black Mountain Road in the vicinity of the historically designated Johnson Taylor Adobe of Rancho de los Peñasquitos (City of San Diego HRB Site #75). The site is within the MHPA on County and City of San Diego 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 eradicated during the enhancement effort include Canary Island date palm (*Phoenix canariensis*), Mexican fan palm (*Washingtonia robusta*), Peruvian pepper tree (*Schinus molle*), Brazilian pepper tree (*Shinus terebinthifolius*), eucalyptus (*Eucalyptus* spp.), edible fig (*Ficus carica*), and artichoke thistle (*Cynara cardunculus*).

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



El Rancho Peñasquitos Wetland Enhancement Project site



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

Rancho Bernardo Mitigation Project

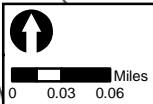
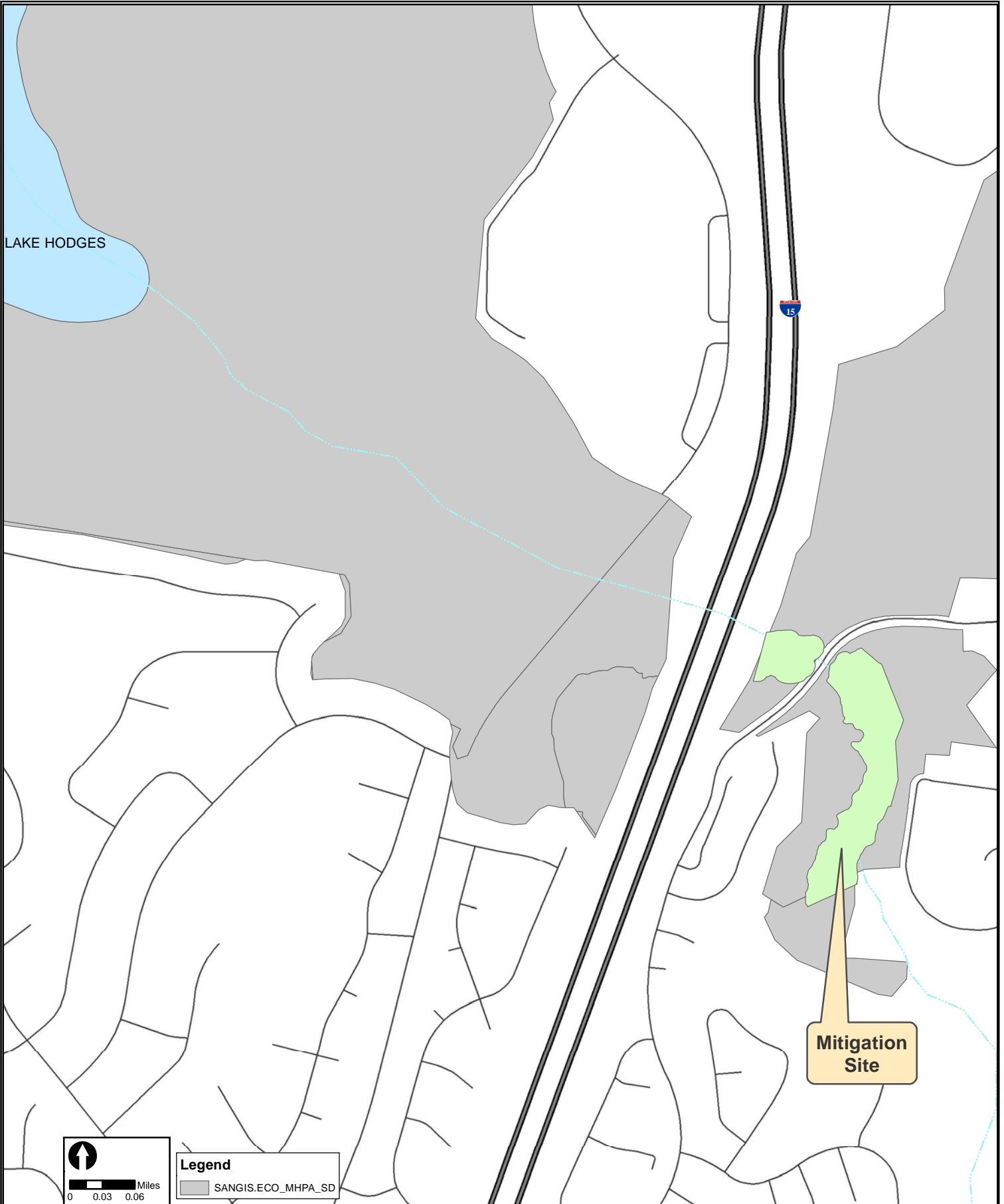
A conceptual mitigation plan has been prepared and approved by the Army Corps of Engineers and California Department of Fish and Game. The project would be located east of I-15, west of Cotorro Road and south of Escala Drive in Rancho Bernardo Canyon (Figure 12).

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 implementation of this project and will reassess mitigation needs for this watershed on an annual basis.



Rancho Bernardo Mitigation Project Site



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**Rancho Bernardo Mitigation
 Vicinity Map
 Figure 12**



**25 Month Revegetation and Restoration Projects Status Table (2008-2012)
August 2012**



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	White	Not enough vegetative cover. Will continue maintenance until meet coverage requirements.
Rancho Mission Slope Repair	Restoration	0.05	6/10/2010	6/10/2010	10/ 2010	7/2012	Balo	On Target. Erosion control replaced 12/2011
Lake Hodges	Restoration	0.03	7/1/2010	7/1/2010	N/A	8/1/2012	Domasco	25 months Monitoring
Menlo and Redwood	Restoration	0.2	11/17/2010	6/2010	11/17/2010	12/17/2012	Smith	On target
East Tecolote	Reveg/Rest	0.05	11/24/2010	11/24/2010	N/A	12/24/2012	White	On target
Lexington Water Emergency (Water)	Restoration	0.03	1/2011	9/2010	1/2011	2/2013	Domasco	On target
Lake Murray (Water)	Restoration	0.02	1/2011	1/2011	1/2011	2/2013	Balo	On target
San Clemente Emergency	Revegetation	<0.01	1/2011	N/A	N/A	2/2013	Balo	25 months Monitoring
San Clemente MH 4 Access	Revegetation	<0.01	2/2011	2/2011	N/A	3/2013	Balo	On target, monitoring only
Plaza Ridge (Water)	Revegetation	0.18	1/19/2011	1/19/2011	N/A	2/19/2013	Smith	On target
Waring Road	Restoration	0.5	4/2009	4/2009	N/A	4/2013	VanEvery	Ongoing maintenance.
33 rd and Maple	Revegetation	<0.01	3/16/2011	3/16/2011	N/A	4/16/2013	Smith	On target
Mission Center Canyon	Restoration	0.22	4/29/2011	10/1/2011	N/A	5/29/2013	White	On target. 25 months
Rose Sinkhole	Reveg/Rest	0.03	5/23/2011	5/3/ 2011	5/23/2011	6/23/2013	White	On target
Carmel Valley Rd (Water)	Revegetation	<0.01	5/20/ 2011	12/1/2011	N/A	6/20/2013	Balo	On target.
Upas Street	Revegetation	0.04	9/29/2011	9/29/2011	N/A	10/29/2013	Smith	On target.
Central Tecolote MH 159	Revegetation	<0.01	5/9/2011	5/9/2011	N/A	6/6/2013	Balo	25 months Monitoring
Dwane and Elaine	Restoration	0.02	6/29/2011	6/29/2011	N/A	7/29/2013	Smith	On target
Admiral Baker	Revegetation	<0.01	7/21/2011	7/21/2011	N/A	8/21/2013	Balo	25 months Monitoring
Hotel Circle South Emergency	Restoration	0.10	11/9/2011	7/26/2011	11/15/2011	12/9/2013	Smith	In 25 month maintenance period
Euclid and Menlo Restoration	Restoration	0.2	11/16/2011	9/10/2011	11/17/2011	12/16/2013	Smith	In 25 Month Maintenance
Chollas/YMCA (Water)	Revegetation	0.01	1/18/2012	9/20/2011	1/18/2012	2/18/2014	Domasco	In 25 Month Maintenance
Mission Center B Crossings	Revegetation	0.17	9/15/2011	N/A	N/A	10/15/2013	Balo	In 25 Month Maintenance
Lakeside Ave Emergency (Water)	Revegetation	0.3	4/15/2012	4/9/2012	06/14/2012	07/14/2014	White	In 25 Month Maintenance
East Tecolote Area C	Revegetation	<0.01	12/19/2011	12/19/2011	N/A	01/19/2014	Balo	In 25 Month Maintenance

Completed Projects				
Canyon/ Project	Revegetation or Restoration	Project Initiation	Project Completion	PM
PS 30	Restoration	4/2010	7/2012	Van Every
Oklahoma Street	Restoration	5/2010	6/2012	Domasco
Lopez MH 102	Restoration	5/2010	6/2012	Domasco
Valeta Street	Revegetation	5/2/2010	6/2012	Santos
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
Buchanan	Reveg	1/18/2005	1/19/08	White
Park Mesa	Reveg/Rest	10/22/04	7/19/2008	Domasco
Tecolote	Reveg	10/22/04	7/19/2008	Domasco

**Under the Public Utilities Department (PUD) Programmatic Environmental Impact Report (PEIR) and Master Site Development Permit for the Canyon Sewer Cleaning and Long-Term Maintenance Access Program (Program), 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. 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.*

2010 California 303(d) List of Water Quality Limited Segments*

Water quality limited segments requiring a TMDL(5A), being addressed by TMDL(5B), and/or being addressed by an action other than TMDL(5C).

REGION	REGION NAME	WATER BODY NAME	WBID	WATER BODY TYPE	WBTYPE CODE	INTEGRATED REPORT CATEGORY	USGS CATALOG UNIT*	CALWATER WATERSHED	ESTIMATED SIZE AFFECTED	UNIT	POLLUTANT	POLLUTANT CATEGORY	FINAL LISTING DECISION	TMDL REQUIREMENT STATUS**	EXPECTED TMDL COMPLETION DATE***	EXPECTED ATTAINMENT DATE***	USEPA TMDL APPROVED DATE***	COMMENTS INCLUDED ON 303(d) LIST
9	Regional Board 9 - San Diego Region	Cottonwood Creek (San Marcos Creek watershed)	CAR9045100020011009142248	River & Stream	R	5	18073033	90451000	1.9	Miles	Sediment Toxicity	Toxicity	Do Not Delist from 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Cottonwood Creek (San Marcos Creek watershed)	CAR9045100020011009142248	River & Stream	R	5	18073033	90451000	1.9	Miles	Selenium	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Cottonwood Creek (Tijuana River watershed)	CAR9118000200200306143545	River & Stream	R	5	18073035	91180000	53	Miles	Selenium	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Dana Point Harbor	CAB901140020010831141600	Bay & Harbor	B	5	18073031	90114000	119	Acres	Copper	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Dana Point Harbor	CAB901140020010831141600	Bay & Harbor	B	5	18073031	90114000	119	Acres	Toxicity	Toxicity	List on 303(d) list (TMDL required list)	5A	2021			
9	Regional Board 9 - San Diego Region	Dana Point Harbor	CAB901140020010831141600	Bay & Harbor	B	5	18073031	90114000	119	Acres	Zinc	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	De Luz Creek	CAR9022100020010924135442	River & Stream	R	5	18073032	90221000	14	Miles	Iron	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	De Luz Creek	CAR9022100020010924135442	River & Stream	R	5	18073032	90221000	14	Miles	Manganese	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	De Luz Creek	CAR9022100020010924135442	River & Stream	R	5	18073032	90221000	14	Miles	Nitrogen	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2021			
9	Regional Board 9 - San Diego Region	De Luz Creek	CAR9022100020010924135442	River & Stream	R	5	18073032	90221000	14	Miles	Sulfates	Other Inorganics	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	El Capitan Lake	CAL9073100020011025093211	Lake & Reservoir	L	5	18073034	90731000	1454	Acres	Color	Nuisance	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	El Capitan Lake	CAL9073100020011025093211	Lake & Reservoir	L	5	18073034	90731000	1454	Acres	Manganese	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	El Capitan Lake	CAL9073100020011025093211	Lake & Reservoir	L	5	18073034	90731000	1454	Acres	Phosphorus	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2021			
9	Regional Board 9 - San Diego Region	El Capitan Lake	CAL9073100020011025093211	Lake & Reservoir	L	5	18073034	90731000	1454	Acres	Total Nitrogen as N	Nutrients	List on 303(d) list (TMDL required list)	5A	2021			
9	Regional Board 9 - San Diego Region	El Capitan Lake	CAL9073100020011025093211	Lake & Reservoir	L	5	18073034	90731000	1454	Acres	Toxicity	Toxicity	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Encinitas Creek	CAR904510001999117144759	River & Stream	R	5	18073033	90451000	3.0	Miles	Selenium	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Encinitas Creek	CAR904510001999117144759	River & Stream	R	5	18073033	90451000	3.0	Miles	Toxicity	Toxicity	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	English Canyon	CAR9011300020050602203953	River & Stream	R	5	18073031	90113000	3.6	Miles	Benzobifluoranthene	Other Organics	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	English Canyon	CAR9011300020050602203953	River & Stream	R	5	18073031	90113000	3.6	Miles	Dieldrin	Pesticides	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	English Canyon	CAR9011300020050602203953	River & Stream	R	5	18073031	90113000	3.6	Miles	Sediment Toxicity	Toxicity	Do Not Delist from 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	English Canyon	CAR9011300020050602203953	River & Stream	R	5	18073031	90113000	3.6	Miles	Selenium	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Escondido Creek	CAR9046200020011005134542	River & Stream	R	5	18073033	90462000	26	Miles	DDT (Dichlorodiphenyltrichloroethane)	Pesticides	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Escondido Creek	CAR9046200020011005134542	River & Stream	R	5	18073033	90462000	26	Miles	Enterococcus	Pathogens	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Escondido Creek	CAR9046200020011005134542	River & Stream	R	5	18073033	90462000	26	Miles	Fecal Coliform	Pathogens	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Escondido Creek	CAR9046200020011005134542	River & Stream	R	5	18073033	90462000	26	Miles	Manganese	Metals/Metalloids	Do Not Delist from 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Escondido Creek	CAR9046200020011005134542	River & Stream	R	5	18073033	90462000	26	Miles	Phosphate	Nutrients	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Escondido Creek	CAR9046200020011005134542	River & Stream	R	5	18073033	90462000	26	Miles	Selenium	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Escondido Creek	CAR9046200020011005134542	River & Stream	R	5	18073033	90462000	26	Miles	Sulfates	Other Inorganics	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Escondido Creek	CAR9046200020011005134542	River & Stream	R	5	18073033	90462000	26	Miles	Total Dissolved Solids	Salinity	Do Not Delist from 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Escondido Creek	CAR9046200020011005134542	River & Stream	R	5	18073033	90462000	26	Miles	Total Nitrogen as N	Nutrients	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Escondido Creek	CAR9046200020011005134542	River & Stream	R	5	18073033	90462000	26	Miles	Toxicity	Toxicity	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Famsea Slough and Channel	CAR9071100119991029122340	Estuary	E	5	18073034	90711000	1.6	Miles	Toxicity	Toxicity	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Felicita Creek	CAR9052300020010925131049	River & Stream	R	5	18073034	90523000	0.9	Miles	Aluminum	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Felicita Creek	CAR9052300020010925131049	River & Stream	R	5	18073034	90523000	0.9	Miles	Total Dissolved Solids	Salinity	Do Not Delist from 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Forester Creek	CAR9071300020010924120240	River & Stream	R	5	18073034	90712000	6.4	Miles	Fecal Coliform	Pathogens	List on 303(d) list (TMDL required list)	5A	2005		Impairment Located at lower 1 mile.	
9	Regional Board 9 - San Diego Region	Forester Creek	CAR9071300020010924120240	River & Stream	R	5	18073034	90712000	6.4	Miles	Selenium	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Forester Creek	CAR9071300020010924120240	River & Stream	R	5	18073034	90712000	6.4	Miles	Total Dissolved Solids	Salinity	Do Not Delist from 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Forester Creek	CAR9071300020010924120240	River & Stream	R	5	18073034	90712000	6.4	Miles	pH	Miscellaneous	List on 303(d) list (TMDL required list)	5A	2019		Impairment Located at lower 1 mile.	
9	Regional Board 9 - San Diego Region	Green Valley Creek	CAR9052200020010926130745	River & Stream	R	5	18073034	90521000	1.0	Miles	Chloride	Salinity	List on 303(d) list (TMDL required list)	5A	2019		Impairment Located at upper 3 miles.	
9	Regional Board 9 - San Diego Region	Green Valley Creek	CAR9052200020010926130745	River & Stream	R	5	18073034	90521000	1.0	Miles	Manganese	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Green Valley Creek	CAR9052200020010926130745	River & Stream	R	5	18073034	90521000	1.0	Miles	Pentachlorophenol (PCP)	Other Organics	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Green Valley Creek	CAR9052200020010926130745	River & Stream	R	5	18073034	90521000	1.0	Miles	Sulfates	Other Inorganics	Do Not Delist from 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Guajome Lake	CAL9031100119991029142145	Lake & Reservoir	L	5	18073033	90311000	33	Acres	Eutrophic	Nutrients	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Hodges Lake	CAL9052100020010925094906	Lake & Reservoir	L	5	18073034	90521000	1104	Acres	Color	Nuisance	Do Not Delist from 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Hodges Lake	CAL9052100020010925094906	Lake & Reservoir	L	5	18073034	90521000	1104	Acres	Manganese	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Hodges Lake	CAL9052100020010925094906	Lake & Reservoir	L	5	18073034	90521000	1104	Acres	Mercury	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2021			
9	Regional Board 9 - San Diego Region	Hodges Lake	CAL9052100020010925094906	Lake & Reservoir	L	5	18073034	90521000	1104	Acres	Nitrogen	Nutrients	Do Not Delist from 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Hodges Lake	CAL9052100020010925094906	Lake & Reservoir	L	5	18073034	90521000	1104	Acres	Phosphorus	Nutrients	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Hodges Lake	CAL9052100020010925094906	Lake & Reservoir	L	5	18073034	90521000	1104	Acres	Turbidity	Sediment	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Hodges Lake	CAL9052100020010925094906	Lake & Reservoir	L	5	18073034	90521000	1104	Acres	pH	Miscellaneous	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Jamul Creek	CAR9103300020081031153832	River & Stream	R	5	18073034	91033000	10	Miles	Toxicity	Toxicity	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Keys Creek	CAR9031200020081210153438	River & Stream	R	5	18073033	90312000	13	Miles	Selenium	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Kil Carson Creek	CAR9052100020010926132824	River & Stream	R	5	18073034	90521000	1.0	Miles	Pentachlorophenol (PCP)	Other Organics	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Kil Carson Creek	CAR9052100020010926132824	River & Stream	R	5	18073034	90521000	1.0	Miles	Toxicity	Toxicity	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Laguna Canyon Channel	CAR9011200020011025105029	River & Stream	R	5	18073031	90112000	1.6	Miles	Total Dissolved Solids	Salinity	Do Not Delist from 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Laguna Canyon Channel	CAR9011200020011025105029	River & Stream	R	5	18073031	90112000	1.6	Miles	Toxicity	Toxicity	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Loma Alta Creek	CAR9041000019991171445300	River & Stream	R	5	18073033	90410000	1.8	Miles	Selenium	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Loma Alta Creek	CAR9041000019991171445300	River & Stream	R	5	18073033	90410000	1.8	Miles	Toxicity	Toxicity	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Loma Alta Slough	CAR9041000019991171450500	Estuary	E	5	18073033	90410000	8.2	Acres	Eutrophic	Nutrients	List on 303(d) list (TMDL required list)	5A	2019			
9	Regional Board 9 - San Diego Region	Loma Alta Slough	CAR9041000019991171450500	Estuary														



Caltrans and SANDAG Release Plan for Integrating Rail, Transit, Highway, Environmental Protection and Coastal Access Improvements

The California Department of Transportation (Caltrans) and the San Diego Association of Governments (SANDAG) have released for public review an extensive plan to help guide transportation, coastal access and environmental improvements along the North Coast Corridor (NCC) over the next four decades. Called a the Public Works Plan/Transportation and Resource Enhancement Program, or PWP/TREP, the document is an implementation blueprint for a package of rail, highway, environmental and coastal access improvements, the majority of which are contained in previously-adopted regional and city plans.

The PWP/TREP outlines a package of improvements that supports the future needs of the NCC, which connects the cities of Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar and San Diego. The program will invest

\$6.5 billion in San Diego's regional economy and includes the construction of new Express Lanes on Interstate 5 (I-5), double tracking the coastal rail corridor and improving the efficiency of the rail system, and environmental preservation and coastal access improvements.

The PWP/TREP outlines plans to restore and preserve sensitive coastal habitat and water quality, improve coastal access through the addition of bike and pedestrian connections and enhance the quality of life for communities along the NCC. The plan prioritizes transit improvements to create an integrated system of rail, rapid bus and carpool facilities that will offer reduced travel times, improved reliability and enhanced regional access to coastal destinations. The improvements will be built in phases over the next 40 years. The inside spread of this newsletter includes a more detailed look at the PWP/TREP.

The PWP/TREP is the result of more than 10 years of collaboration and public input about how to comprehensively improve the corridor. The regulatory document, first released to the public in June 2010, has been updated to reflect input from the public, local cities, resource agencies and the California Coastal Commission.

The public now has the opportunity to weigh in on the program of improvements outlined in the PWP/TREP, which is out for public review until April 29, 2013. As a requirement of recent state legislation, Senate Bill 468, there will be two public meetings on the PWP/TREP before it is submitted this summer to the California Coastal Commission for consideration. Information about the meetings can be found in the story to the right.

SANDAG, in collaboration with Caltrans, plans to invest \$6.5 billion in the North Coast Corridor.



JOIN US!

PWP Public Meetings

Please join us at one of two public meetings on the NCC PWP/TREP. The meetings will offer members of the public the opportunity to provide input on the highway, rail and transit, environmental, and coastal access improvements outlined in the document. Stations will be staffed with project team members from Caltrans and SANDAG who will answer questions about the projects detailed in the PWP/TREP.

**Wednesday,
April 3, 2013
6 p.m. – 8 p.m.**

La Jolla Country Day School
9490 Genesee Avenue
La Jolla, CA 92037

**Thursday,
April 4, 2013
6 p.m. – 8 p.m.**

**Carlsbad Senior
Center Auditorium**
799 Pine Avenue
Carlsbad, CA 92008

“Quiet Grind” Reduces Highway Noise for Drivers and Nearby Residents

A pilot project led by Caltrans to test the effectiveness of a new concrete grinding technology was recently completed on I-5 in Solana Beach. The results showed that the technology, called Next Generation Concrete Surface or Quiet Grind, noticeably reduces freeway noise.

According to Caltrans, 70-90 percent of noise generated by passenger cars is from tire/pavement interaction. Quiet Grind is an innovative grinding technique for concrete surfaces that helps cut down on the amount of noise tires generate on the road surface. It is a hybrid surface treatment that combines conventional and modern grinding methods to create a smoother and quieter ride.

According to the American Concrete Pavement Association, Quiet Grind is the quietest nonporous concrete texture developed to date.

The Quiet Grind pilot project was conducted on an approximately one-mile stretch of I-5 from Via de la Valle and Lomas Santa Fe Drive in Solana Beach. When combined with traditional concrete diamond grinding methods, the pilot project demonstrated a nearly five decibel noise reduction. Caltrans is further reviewing the results of the study to determine if the Quiet Grind should be considered for future construction such as the proposed I-5 Express Lanes Project.



Moving People, Not Just Cars

More Trains, More Transit

The LOSSAN (Los Angeles-San Diego-San Luis Obispo) coastal rail corridor is vital to the movement of people and goods in the corridor. The PWP/TREP implements a phased effort to double track the majority of the corridor's rail system between Oceanside and San Diego by 2030. Improvements to the San Diego segment of the LOSSAN coastal rail line will speed passenger travel times on the COASTER and Amtrak Pacific Surfliner and improve freight movement to and from the region.

Additional rail enhancements include improving transit station facilities, adding boarding platforms, and increased parking at stations. Planned rail improvements are expected to nearly double current rail passenger capacity.

Additional transit improvements include a planned rapid bus service along Highway 101 and main arterials streets from Oceanside to University City. Express Lanes along I-5 also will accommodate Bus Rapid Transit (BRT) service in the corridor. Improvements to the LOSSAN coastal rail corridor, as well as the implementation of new Rapid Bus and BRT services in the NCC, will expand transit options, shorten travel times and ensure on-time reliability for rail and bus passengers.



Double tracking is a critical transportation improvement included in the Public Works Plan.



The I-5 Express Lanes will help improve mobility and reduce travel times in the North Coast Corridor.

Highway Improvements

The PWP/TREP implements a framework for the NCC that encourages alternative modes of transportation by improving the existing coastal rail corridor and adding Express Lanes on I-5 that allow for use by express buses, vanpools, carpools and solo drivers using FasTrak™.

The I-5 Express Lanes would maximize the person-carrying capacity of the highway by prioritizing carpools, vanpools, and buses, with the least amount of highway footprint expansion. The Express Lanes will provide flexibility to meet changing travel demand and provide reliable, congestion-free trips. Revenue generated from the Express Lanes FasTrak™ system will fund transit projects within the corridor.

Investing in Our Communities

Community Enhancements

Included in the PWP/TREP is a package of community-specific enhancement projects in San Diego, Del Mar, Solana Beach, Encinitas, Carlsbad and Oceanside. Caltrans and SANDAG have been working with cities since 2006 to identify priority projects to preserve and enhance community character and connectivity. Plans include trails and trailheads, streetscape enhancements, pedestrian overpasses, pocket parks, open space, community gardens and regional gateways.

Preserving Views

The PWP/TREP ensures that highway, rail and transit, environmental, and coastal access improvements protect scenic views along the corridor in accordance with the California Coastal Act. Examples include see-through bridge rails, transparent sound walls for private properties and additional scenic viewpoints.



Views of the San Dieguito Lagoon and other coastal resources will be preserved.

New Rail Project to Improve Service near the Del Mar Fairgrounds

Project will add a new special events platform at the Fairgrounds

SANDAG initiated the early planning and environmental scoping process for a new rail project near the Del Mar Fairgrounds in early 2013. The San Dieguito Double Track and Special Events Platform Project will add approximately one mile of second track from Solana Beach to Camino Del Mar, replace the nearly 100-year old wooden trestle bridge over the San Dieguito River, and add a special events rail platform at the Fairgrounds for major events.

The rail improvement project, which is not yet funded for construction, is being led by SANDAG in collaboration with the North County Transit District (NCTD), Caltrans and the Federal Railroad Administration (FRA). It will improve a critical part of the LOSSAN coastal rail corridor that serves as a vital link for passenger and freight movements in San Diego County. The project is one part of a \$2.3 billion package of rail and transit improvements planned for the North Coast Corridor.

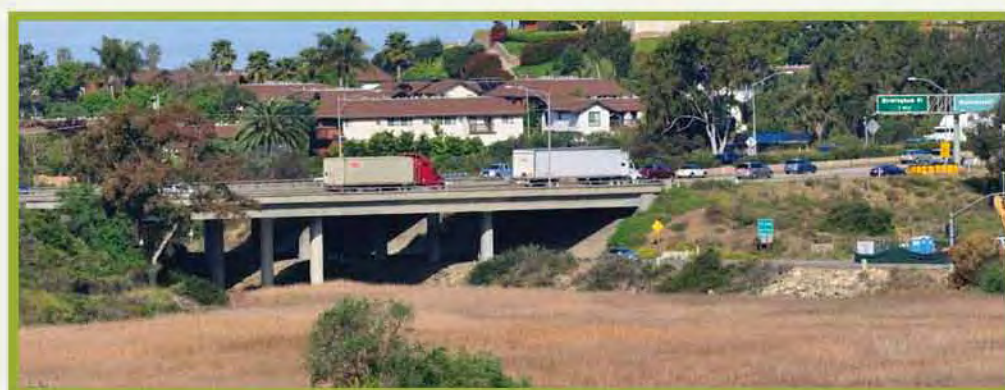
Restoring and Enhancing Valuable Coastal Resources

Resource Enhancement Program

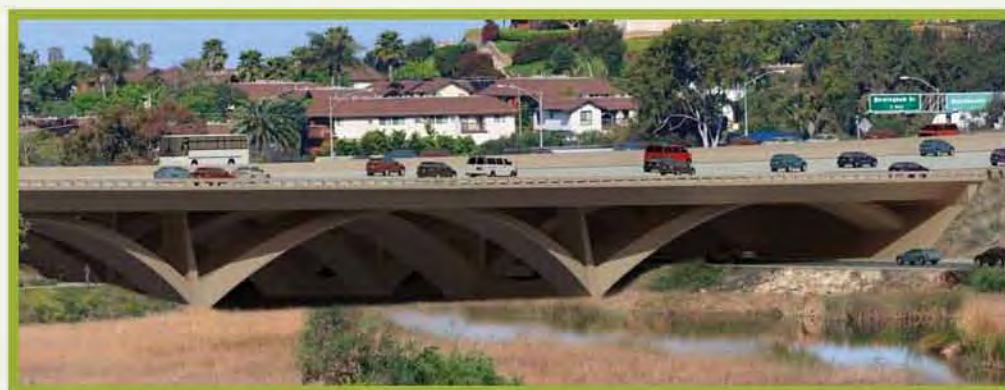
Preserving the natural environment is a critical part of the PWP/TREP. The Resource Enhancement Program (REP) outlined in the plan offers the opportunity to restore and enhance lagoon ecosystems. Through the REP several hundred acres of sensitive coastal habitat will be acquired, preserved and restored. Additionally, the REP will establish an endowment that includes assurances for future maintenance, ensuring the long-term health of these environmental systems.

Lagoon Bridge Optimization

Through the PWP/TREP process, Caltrans identified opportunities to improve tidal flow and the overall health of the six lagoons in the NCC. It was found that by lengthening existing highway and rail bridges, tidal flow and water quality would be improved by creating wider openings for improved water circulation and facilitating large-scale restoration plans in the San Elijo, Batiqitos and Buena Vista Lagoons.



BEFORE: The narrow spans of the current Manchester Avenue bridge inhibit tidal flow and water circulation.



AFTER: The future Manchester Avenue bridge will be lengthened to allow for optimal tidal flow and water circulation, enhancing the overall health of the lagoon.

Connecting You to the Coast



BEFORE: The existing Sorrento Valley bike and pedestrian trail.



AFTER: The Public Works Plan provides opportunities to restore trails as shown above.

Bike and Pedestrian Improvements

The PWP/TREP establishes the North Coast Bike Trail, a contiguous bike and pedestrian trail that will run parallel to I-5 from northern San Diego to Oceanside. It also outlines opportunities to fill gaps in the region's existing bike and pedestrian network including creating new east-west regional bike and pedestrian trail connections. These bike and pedestrian improvements would offer direct routes to transit and employment centers and enhance public access to the region's beaches and recreation areas.



The San Dieguito Double Track rail project will provide direct access to the Del Mar Fairgrounds for COASTER and Amtrak passengers.

The project will help achieve the long-term vision of the larger NCC Program, which includes a coordinated package of rail, transit, highway, and environmental improvements. The project is also consistent with the SANDAG 2050 Regional Transportation Plan, which seeks to improve the transportation system to further enhance quality of life, promote sustainability, offer more transportation choices for people, and enhance goods movement.

SANDAG Begins Corridor Study to Reduce Demand on Interstate 5

Transportation Demand Management Plan to Promote Use of Transit, Carpools and Teleworking

Late last year, SANDAG began research to determine existing travel behavior and attitudes and perceptions towards using transportation alternatives along the North Coast Corridor. The research is part a of NCC specific Transportation Demand Management (TDM) plan to reduce travel demand and explore specific strategies for the travel needs in the NCC. The SANDAG TDM division, known as iCommute, is leading the development and implementation of the NCC TDM plan. TDM strategies can provide flexible and cost-effective solutions including: ridesharing initiatives such as carpooling and vanpooling;

promoting alternative work schedules and teleworking; and promoting bicycling, walking, and the use of public transit.

The goals of the NCC TDM plan are threefold: 1) reduce existing peak-hour traffic and increase transit use in the corridor today; 2) avoid crippling bottlenecks during phased construction of highway improvements in the years ahead; and 3) achieve sustainable mode shifts and behavior changes that reduce solo driving on I-5 and improve air quality in the future. These solutions have the potential to reduce the overall amount of travel, make more efficient use of existing roadways, and maximize the movement of people and goods.

The research effort included surveying commuters and employers, interviewing school administrators, and conducting “roundtable” discussion forums with business and community organizations along the northern I-5 corridor. The results of the research will help the iCommute team explore opportunities to expand alternative modes of transportation in conjunction with the planned highway, rail, transit, bike and pedestrian improvements included in the NCC Program.

The second phase of the project will begin this April and continue through September 2013, and will consist of developing a comprehensive TDM Plan that will help create flexible and cost-effective solutions for travel along the NCC. Companies and individuals interested in learning more about commuting alternatives can find programs and services online at iCommutesd.com.



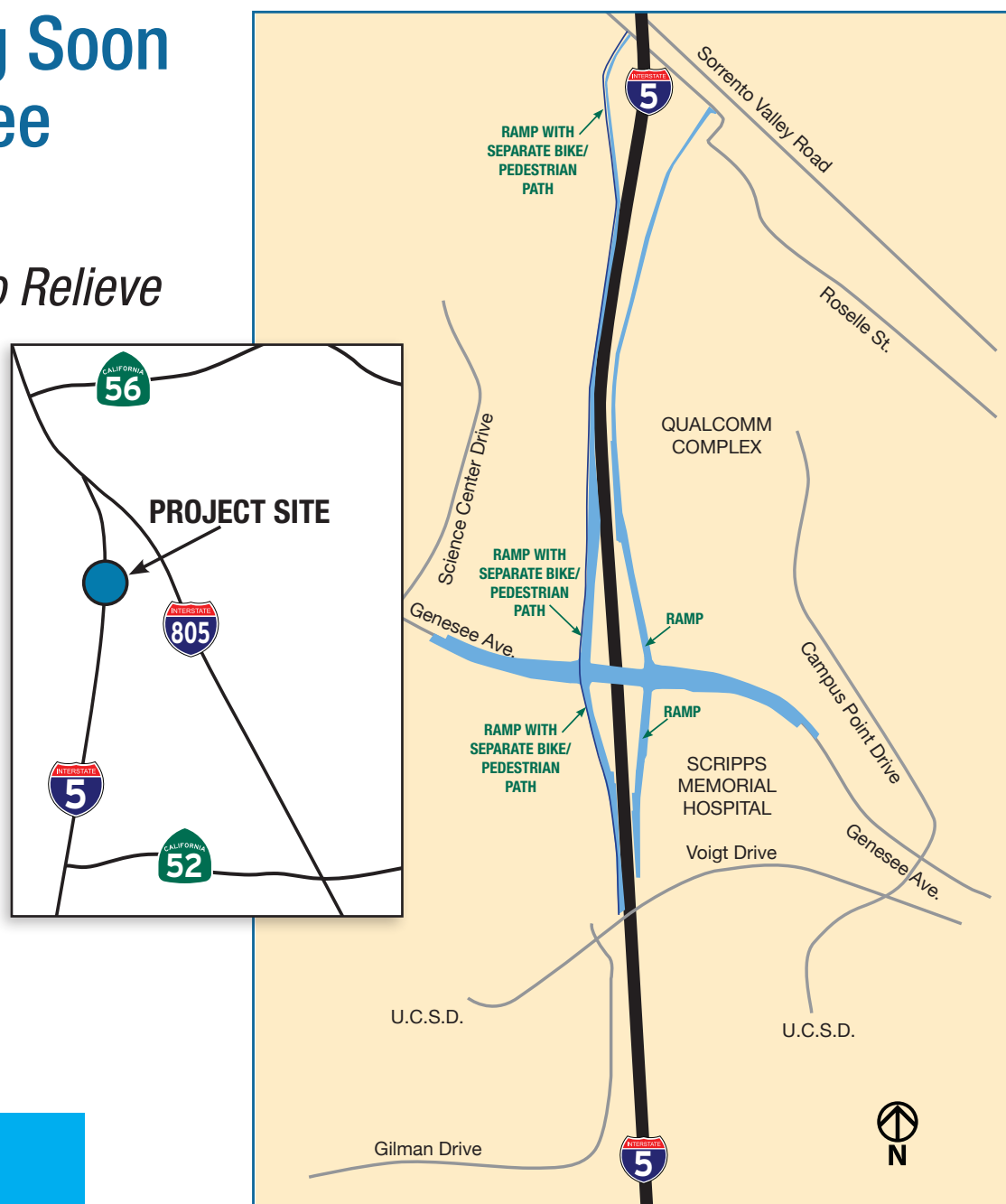
The NCC Transportation Demand Management Plan will explore alternative modes of transportation for the corridor.

Congestion Relief Coming Soon at the Interstate 5/Genesee Avenue Interchange

Construction Begins Later this Year to Relieve Traffic near Scripps, UC San Diego

Later this year, construction will begin on the Interstate 5/ Genesee Avenue Interchange project. The project will bring much-needed help to alleviate current traffic and accommodate future demands in the job intensive community. It will widen the existing five-lane Genesee Avenue overpass to 10 lanes and improve the existing freeway on-/off-ramps. A key element to the project includes the addition of a bicycle and pedestrian route that links to transportation, employment centers, hospitals, UC San Diego and the Sorrento Valley Transit Center. The project will greatly improve the movement of people and goods through the area.

The \$94 million project was fully funded through contributions from Caltrans, SANDAG, the City of San Diego and area businesses. The partnership is a model for similar transportation projects around the region. Construction begins later this year with an expected completion date of spring 2016.



NCC Program Next Steps

- Spring 2013:** PWP/TREP Public Review
- Summer 2013:** Final I-5 Express Lanes Project EIR/EIS release
- Spring 2014:** California Coastal Commission review of the PWP/TREP

For more information about the NCC Program, please visit the North Coast Corridor section of KeepSanDiegoMoving.com, contact Caltrans Public Affairs at (619) 688-6670 or scan the QR code to the right using your smartphone's code reader app.





North Coast Corridor Interstate 5/Genesee Avenue Interchange Project

A Foundation for Regional Transportation Enhancements

The I-5/Genesee Avenue Interchange Project will convert the existing five lane Genesee Avenue overpass into 10 lanes to accommodate current and future traffic demands in the job intensive community. The project is an integral piece of the broader improvements planned along I-5 in the North Coast Corridor. It will improve traffic flow and reduce congestion on Genesee Avenue and at its interchange through the replacement of the existing overcrossing and the widening of freeway access ramps. Additionally,

the project will add vital bicycle and pedestrian routes that link to transportation, employment centers, hospitals and UC San Diego. The project will also greatly improve the movement of people and goods through the area.

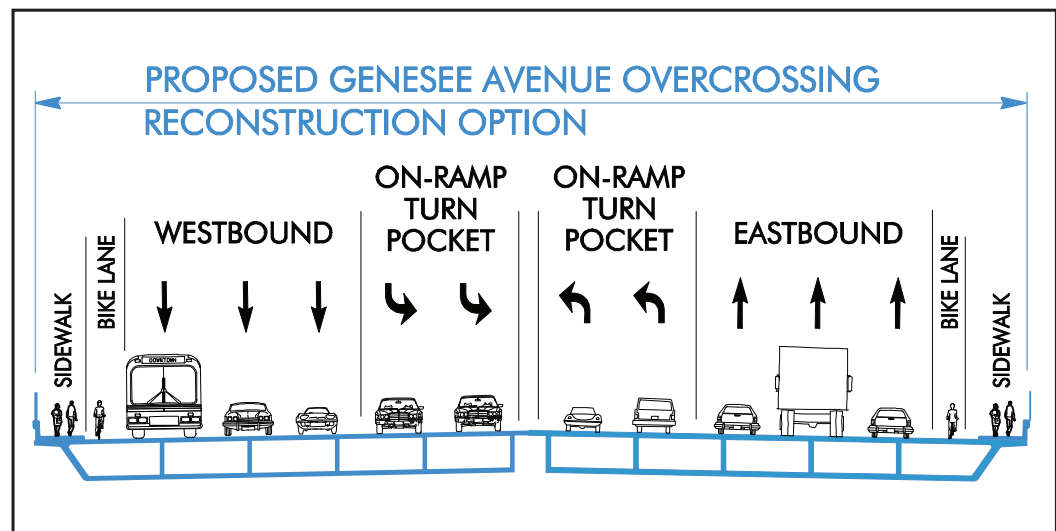


Diagram showing a cross section of the I-5/Genesee Avenue overcrossing.

Easing Congestion and Improving Connectivity

Key features of the I-5/Genesee Avenue Interchange Project include:

- Replacing the existing overcrossing at Genesee Avenue with an improved bridge that accommodates additional vehicle lanes, sidewalks and bicycle routes;
- Widening the freeway access ramps at Genesee Avenue and Sorrento Valley Road;
- Widening Genesee Avenue in both directions adjacent to the freeway to provide new through and turn lanes;
- Constructing approximately three miles of bicycle paths in both directions from Roselle Street to Voigt Drive.

A Collaborative Process

The I-5/Genesee Avenue Interchange Project is the result of a unique public and private partnership. The \$94 million project was fully funded through contributions from Caltrans, SANDAG, the City of San Diego and area businesses. The partnership is a model for similar transportation projects around the region.



For more information, please visit:

KeepSanDiegoMoving.com



North Coast Corridor
A better environment for the future

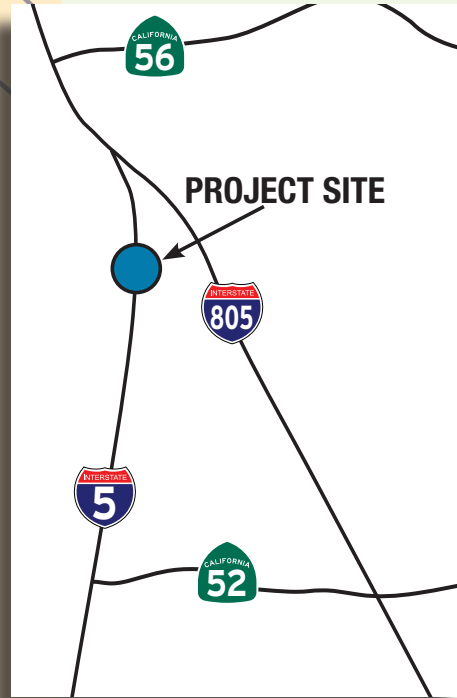
Project Map



Phase 1



Phase 2



Next Steps

The funding for phase one of the I-5/Genesee Avenue Interchange Project has been approved by SANDAG's Board of Directors. Caltrans anticipates final design of the project in summer 2012. Work on the I-5/Genesee Avenue

Interchange Project is scheduled to begin in early 2013. The project is slated to open to traffic in early 2015.



For more information, please visit:

KeepSanDiegoMoving.com



DRAFT
CANDIDATE FINDINGS OF FACT AND
STATEMENT OF OVERRIDING CONSIDERATIONS
REGARDING THE
FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT
FOR THE
BICYCLE MASTER PLAN UPDATE
Project No. 290781
SCH No. 2012061075

June 2013

I. INTRODUCTION

The following Candidate Findings and Statement of Overriding Considerations are made for the Bicycle Master Plan Update (BMP Update) project (hereinafter referred to as the "project"). The environmental effects of the project are addressed in the Final Program Environmental Impact Report (EIR) dated June 2013, which is incorporated by reference herein.

A. Findings of Fact and Statement of Overriding Considerations

The California Environmental Quality Act (CEQA) [§21081(a)] and the State CEQA Guidelines [§15091(a)] require that no public agency shall approve or carry out a project for which an environmental impact report has been completed which identifies one or more significant effects thereof, unless such public agency makes one or more of the following findings:

- (1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects on the environment;
- (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can or should be, adopted by that other agency; or
- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

CEQA also requires that the findings made pursuant to §15091 be supported by substantial evidence in the record (§15091(b) of the State CEQA Guidelines). Under CEQA, substantial evidence means enough relevant information has been provided (and reasonable inferences from this information may be made) that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Substantial evidence must include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts (§15384 of the State CEQA Guidelines).

CEQA further requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental effects when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable" (§15093(a) of the State CEQA Guidelines). When the lead agency approves a project which will result in the occurrence of significant effects that are identified in the Final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its actions based on the Final EIR and/or other information in the record. The statement of overriding

considerations shall be supported by substantial evidence in the record, and does not substitute for, and shall be in addition to, findings required pursuant to §15091 (§15093(b) and (c) of the State CEQA Guidelines).

The following Candidate Findings and Statement of Overriding Considerations have been submitted by the City of San Diego Development Services Department, Planning Division, as Candidate Findings and Statement of Overriding Considerations to be made by the decision making body. The Development Services Department (DSD), Environmental Analysis Section of the Entitlements Division, does not recommend that the discretionary body either adopt or reject these Findings. They are attached to allow readers of this report an opportunity to review the City of San Diego Development Services Department, Planning Division's position on this matter. It is the exclusive discretion of the decision-maker certifying the EIR to determine the adequacy of the proposed Candidate Findings and Statement of Overriding Considerations. It is the role of staff to independently evaluate the proposed the Candidate Findings and Statement of Overriding Considerations, and to make a recommendation to the decision-maker regarding their legal adequacy.

B. Record of Proceedings

For purposes of CEQA and these Findings, the record of proceedings for the proposed project consists of the following documents and other evidence, at a minimum:

- The Notice of Preparation (NOP), dated June 25, 2012, and all other public notices issued by the City in conjunction with the project;
- The Final Program EIR for the project;
- All written comments submitted by agencies or members of the public during the public review comment period of the Draft Program EIR;
- All responses to written comments submitted by agencies or members of the public during the public review comment period of the Draft Program EIR;
- The project's Mitigation Monitoring and Reporting Program (MMRP);
- The reports, documents, studies, technical memoranda or other materials included or referenced in the Final Program EIR;
- Matters of common knowledge to the City, including but not limited to federal, state, and local laws and regulations;
- Any documents expressly cited in these Findings and/or the Statement of Overriding Considerations;
- All notices issued by the City to comply with CEQA or with any other law governing the processing and approval of the project; and
- Any other relevant materials required to be in the record of proceedings by §21167.6(e) of CEQA.

C. Custodian and Location of Records

The documents and other materials which constitute the record of proceedings for the City's actions on the project are located at the City DSD, 1222 First Avenue, 5th Floor, San Diego, CA 92101. The City DSD is the custodian of the project's administrative record. Copies of the documents that constitute the record of proceedings are and at all relevant times have been available upon request at the offices of the City DSD. The Draft Program EIR also was placed on the City's website at: <http://clerkdoc.sannet.gov/Website/publicnotice/pubnotceqa.html>.

This information is provided in compliance with Public Resources Code §21081.6(a)(2) and CEQA Guidelines §15091(e).

II. PROJECT SUMMARY

A. Project Location

The project area for the BMP Update includes the jurisdictional boundaries of the City of San Diego (City), which encompasses approximately 342.5 square miles.

B. Project Description

The proposed project is the update of the City's 2002 BMP. The 2002 BMP is a policy document that addressed issues such as bikeway planning, community involvement, facility design, bikeway classifications, utilization of existing resources, multi-modal integration, safety and education, support facilities, implementation, maintenance and funding strategies.

The City is updating the 2002 BMP to provide a renewed bicycle plan for the City and a framework for making cycling a more practical and convenient transportation option for a wide variety of San Diegans with different riding purposes and skill-levels.

The project proposes the following project features:

- Bikeways;
- Bike Parking and End-of-Trip Facilities;
- Bicycle Signal Detection;
- Signage and Striping;
- Multi-Modal Connections; and
- Other Bikeway-related Improvements.

There are approximately 511 miles of existing facilities, the majority of which are Class II Bike Lanes. The City's existing bicycle network is comprised of Bike Paths, Bike Lanes, Bike Routes, and freeway shoulder where Caltrans permits bicycle use. Class I Bike Paths consist of off-street paved right-of-way for exclusive use by bicyclists, pedestrians, and those using non-motorized modes of travel; Class II Bike Lanes are one

way facilities on either side of a roadway designated for exclusive or preferential bicycle travel with striping and signage; and Class III Bike Routes use signage to provide shared use with motor vehicle traffic within the same travel lane.

The proposed bicycle network includes an additional 595 miles of bicycle facilities, for a future network totaling approximately 1,090 miles (not including approximately 16 miles of existing freeway shoulder bikeway facilities that are anticipated to not be needed when the proposed network is completed). For purposes of analysis in the Program EIR, proposed bikeways¹ are grouped into three categories:

- Off-street Bikeways;
- On-street Bikeways With Widening; and
- On-street Bikeways Without Widening.

Off-street Bikeways are not associated with a roadway carrying motorized vehicle traffic. They would be constructed within their own right-of-way outside of a roadway "footprint." On-street Bikeways would provide bicycle facilities in association with a roadway carrying motorized vehicle traffic. This may only involve the addition of bikeway signage, striping, and related improvements without the need for roadway modifications outside of the existing roadway "footprint." Such bikeways are grouped together for analysis as On-street Bikeways Without Widening. On-street Bikeways requiring roadway modifications beyond the existing roadway "footprint" are referred to as On-street Bikeways With Widening.

¹ "Bikeway," as used in the Program EIR and this document, refers to Bike Paths, Bike Lanes, and Bike Routes (as defined in the Caltrans Highway Design Manual [2012b]), as well as Bicycle Boulevards and Cycle Tracks (that are not currently classified in the Highway Design Manual).

The proposed network is summarized in Table 1, *Proposed San Diego Bicycle Network*.

Table 1 PROPOSED SAN DIEGO BICYCLE NETWORK			
Facility Type	Miles of Existing Facility	Miles of Proposed Unbuilt Facility	Total Miles of Facility
Class I - Bike Path	72.3	94.1	166.4
Class II - Bike Lane	309.4	140.6	450.0
Class III - Bike Route	112.9	171.2	284.1
Class II or III ¹	NA	143.4	143.4
Freeway Shoulder ²	16.1	0	16.12
Bicycle Boulevard	0	39.4	39.4
Cycle Track	0	6.6	6.6
TOTAL	510.7	595.3	1,089.9

¹ It is undetermined at this point whether 143.4 miles of proposed bikeways would be Class II or Class III bikeways.

² Facility not included in the total miles summary because it is anticipated that freeway shoulder bikeways will not be needed when the network is completed.

NA = not applicable

Source: BMP Update 2013

The BMP Update recommends provision of additional bicycle parking facilities in new and existing commercial, retail, and employment areas. Bicycle parking recommendations include the City's standard inverted-U bike racks, lockers, high-capacity bike parking such as corrals, and a bike station. In addition to parking accommodations, end-of-trip facilities such as restrooms, changing rooms, showers, and storage for bicycling clothes (helmet and other gear) are especially important for cyclists who commute to work or school.

Signal detection would be provided at signalized intersections for new bikeways, where possible.

Signage would be provided for bikeways implemented under the BMP Update where no signs exist. Proposed signage includes:

- "Share the Road" signs for Class III bike routes;
- Designated bikeway signs;
- Bicycle boulevard identification;
- Wayfinding signs; and
- Warning signage.

The project proposes to improve connections to transit facilities by: (1) providing bicycle access to transit stops; and (2) providing bicycle parking facilities at transit stops. Such measures are intended to provide a convenient connection for bicyclists to continue their

trips on public transit vehicles. The BMP Update's proposed bikeway network would connect to existing transit stops and bicycle parking at major train, trolley, and bus transit stops.

Other bikeway-related improvements could include landscaping, lighting, fencing, drainage facilities, and utility work.

C. Discretionary Actions

To approve the project, the City must take the following actions:

- Certify the Final Program EIR;
- Approve these Findings and Statement of Overriding Considerations;
- Adopt the MMRP; and
- Approve the BMP Update.

D. Statement of Objectives

As described in Section 3.2 of the Final Program EIR, the primary goals and objectives of the proposed project include:

- Provide a framework to guide the implementation of an expanded bicycle network within the City to promote bicycling as a transportation mode;
- Provide improved local and regional bicycle connectivity to transit centers, employment centers, shopping districts, parks, and other local amenities;
- Provide a safe and comprehensive local and regional bikeway network; and
- Supplement the City's General Plan Mobility Element with policies focused on enhancing bicycling as a viable transportation mode in the City.

III. INTENDED USES OF THE PROGRAM EIR

A. Purpose of the Program EIR

The major purposes of the Program EIR are:

- To identify current and projected environmental conditions which may affect or be affected by the BMP Update;
- To disclose the potential environmental impacts of the BMP Update to the public and decision makers;
- To inform the public and to foster public participation in the planning process for the BMP Update;
- To identify a mitigation framework which could eliminate or reduce potentially significant environmental impacts of the BMP Update; and
- To evaluate alternatives that would reduce or avoid the proposed project's significant impacts.

B. Subsequent Environmental Review

Environmental review for subsequent BMP Update activities within the BMP Update, such as implementation of specific bikeways and related support facilities, would occur in accordance with State CEQA Guidelines Section 15168. In accordance with State CEQA Guidelines Section 15168, the City would examine project-specific activities of the BMP Update based on the Program EIR to determine if the scope of the project-specific activity is covered by the Program EIR and whether the Program EIR adequately addresses the potential environmental impacts associated with project-specific activity, or if subsequent CEQA documentation would be required.

It is anticipated that many bikeways implemented under the BMP Update, particularly those that would be within an existing paved roadway that would not require any roadway modifications, would be covered by the Program EIR and would not require additional CEQA review, since they would only require signage or pavement markings and would not necessitate other roadway modifications.

Pursuant to State CEQA Guidelines Section 15168(c), the certified Program EIR would satisfy CEQA requirements for subsequent BMP Update activities if the following conditions can be met:

- Pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required (Section 15168(c)(2)); and
- All feasible mitigation measures or alternatives identified in the Program EIR will be incorporated (Section 15168(c)(3)).

Section 15162(a) of the State CEQA Guidelines allows a previous EIR to be used in approving a subsequent activity addressed in the previous EIR, as long as none of the following conditions apply:

- Substantial changes are proposed to the project which will require major revisions to the EIR due to the involvement of new significant impacts or a substantial increase in the severity of previously identified significant impacts (Section 15162(a)(1));
- Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions to the previous EIR due to the involvement of new significant impacts or a substantial increase in the severity of previously identified significant impacts (Section 15162(a)(2)); or
- New information of substantial importance is identified, which was not known and could not have been known with the exercise of reasonable due diligence at the time the previous EIR was certified, and that information shows any of the following (Section 15162(a)(3)):
 - Project will have one or more significant effects not discussed in the original EIR (Section 15162(a)(3)(A));
 - Significant effects previously identified will be substantially more severe than identified in the previous EIR (Section 15162(a)(3)(B));

- Mitigation measures or alternatives determined to be infeasible in the previous EIR would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the applicant declines to implement them (Section 15162(a)(3)(C)); or
- Mitigation measures or alternatives, which are considerably different from those identified in the previous EIR, would substantially reduce one or more significant effects, but the applicant declines to implement them (Section 15162(a)(3)(D)).

In accordance with State CEQA Guidelines Section 15168(c), the City would conduct a review of project-specific activities under the BMP Update, such as implementation of a specific bikeway and/or related support facilities. Subsequent project-specific activities would be examined in light of the Program EIR to determine whether the Program EIR adequately addresses the potential impacts associated with the subsequent activity or if preparation of additional environmental documentation would be required. Preparation of project-level technical studies may be required when certain conditions apply to project-specific activities under the BMP Update, as described in the Program EIR and MMRP. Any required project-specific technical studies would be used to determine whether such activity is within the scope of the Program EIR and whether the Program EIR adequately describes the activity for CEQA purposes.

Based on consideration of the City review and information contained in project-level technical studies required by the BMP Update Program EIR, the City would determine which of the following CEQA process scenarios would be appropriate for subsequent BMP Update activities.

CEQA Scenario 1: If the project-level documentation shows that the impacts associated with the subsequent BMP Update activity have been adequately addressed in the Program EIR and mitigation will be carried out, as defined in the Program EIR and MMRP, no further environmental review will be required, and the Program EIR will be used to satisfy CEQA review requirements for the subsequent BMP Update activity.

CEQA Scenario 2: If the project-level documentation shows that the subsequent BMP Update activity is not within the scope of the BMP Update Program EIR and impacts are not adequately addressed and/or adequate mitigation is not proposed, the City would prepare a tiered or new Negative Declaration, Mitigated Negative Declaration, or EIR, pursuant to State CEQA Guidelines Section 15168(c)(1) and CEQA Section 21094.

CEQA Scenario 3: If the project-level documentation shows that the subsequent BMP Update activity would require substantial modifications to the BMP Update Program EIR, the City would prepare a Subsequent EIR or a Supplement or Addendum to the certified Program EIR, pursuant to State CEQA Guidelines Sections 15168(c)(2), 15162, 15163, and 15164.

IV. ENVIRONMENTAL REVIEW AND PUBLIC PARTICIPATION

In 2012, the City determined that the proposed project may have a significant effect on the environment and that an EIR should be prepared to analyze the potential impacts associated with the project. On June 25, 2012, in accordance with State CEQA Guidelines §15082, the City distributed a Notice of Preparation (NOP) of the Draft Program EIR to the State Clearinghouse, local and regional responsible agencies, and other interested parties and held a noticed public scoping meeting on July 9, 2012 to provide information regarding the project and an opportunity for public input regarding project issues that should be addressed in the Draft Program EIR. The NOP was properly distributed under CEQA, placed on the City's website, and published in the San Diego Daily Transcript. The NOP, NOP distribution list, and NOP comments received during the 30-day public review period are contained in Appendix A to the Draft Program EIR. Comments received during the public scoping process were considered in the preparation of the Draft Program EIR.

The Draft Program EIR was circulated for a 45-day review period, from March 28, 2013 until May 13, 2013. A Notice of Completion of the Draft Program EIR was sent to the State Clearinghouse, and the Draft Program EIR was circulated to State agencies for review through the State Clearinghouse, Office of Planning Research (SCH No. 2012061075). The City received comments on the Draft Program EIR and completed responses to those comments in May 2013, and those responses to comments have been incorporated into the Final Program EIR.

V. SUMMARY OF IMPACTS

The Final Program EIR concludes that the project would have no significant direct and/or cumulative impacts with respect to the following issues:

- Agricultural and Forest Resources,
- Air Quality,
- Energy,
- Greenhouse Gas Emissions,
- Human Health and Public Safety,
- Hydrology and Water Quality,
- Land Use,
- Mineral Resources,
- Noise,
- Population and Housing,
- Public Services and Facilities,
- Public Utilities, and
- Recreation.

As described in Section VI of these Findings, potentially significant direct, indirect, and/or cumulative impacts could occur with respect to the following issues:

- Biological Resources,
- Historical Resources,
- Transportation/Circulation,
- Visual Quality/Neighborhood Character,
- Paleontological Resources, and
- Geologic Conditions.

Direct, indirect and/or cumulative impacts resulting from the project related to Biological Resources, Historical Resources, Visual Quality/Neighborhood Character, Paleontological Resources, and Geologic Conditions would be mitigated to below a level of significance by existing regulations/standard conditions and implementation of mitigation measures identified in Section VI. Direct and/or cumulative impacts related to Transportation/Circulation could be mitigated to below a level of significance by implementation of mitigation measures identified in Section VI. However, this would be verified on a project-by-project basis so the potential exists for significant, unavoidable traffic impacts to occur.

VI. FINDINGS REGARDING SIGNIFICANT IMPACTS

In making each of the findings below, the City has considered the BMP Update proposed features, programs, and policies; and mitigation measures discussed in the Final Program EIR. The mitigation measures will be made conditions of project approval and included in the MMRP.

VI.A. Findings Regarding Impacts that Can Be Mitigated to Below a Level of Significance (CEQA §21081(a)(1) and State CEQA Guidelines §15091(a)(1))

The City, having reviewed and considered the information contained in the Final Program EIR and the Record of Proceedings, finds pursuant to CEQA §21081(a)(1) and State CEQA Guidelines §15091(a)(1) that changes or alterations have been required in, or incorporated into, the project which would mitigate, avoid, or substantially lessen to below a level of significance potentially significant direct, indirect, and/or cumulative environmental effects related to Biological Resources, Historical Resources, Visual Quality/Neighborhood Character, Paleontological Resources, and Geologic Conditions impacts. The basis for this conclusion follows.

1. Biological Resources (DIRECT and INDIRECT impacts to candidate, sensitive, or special status species.)

Impact: On-street Bikeways With Widening and Off-street Bikeways are envisioned throughout the City, including areas that may be near wetlands, riparian habitats, sensitive upland habitats, or other sensitive natural areas that may support candidate, sensitive, or special status species. Structures such as retaining walls, bridges or culverts

associated with bikeways could also interfere with wildlife corridors or nesting areas used by such species. Development of On-street Bikeways With Widening and Off-street Bikeways may require the removal of existing trees and/or plants, which are located either adjacent to existing roadways or within undeveloped natural areas through which a bikeway would traverse. For all bikeway types, including On-street Bikeways Without Widening, increased public access, particularly unauthorized access, can disturb or damage special status plants, as well as habitats suitable for certain protected species. Litter and debris associated with human activity in protected areas can also result in adverse effects to candidate, sensitive, or special status species. New lighting adjacent to or within natural areas may be relatively substantial compared to the existing condition.

Finding: Significant but mitigated.

Facts in support of Finding: Significant direct and indirect impacts to candidate, sensitive, or special status species would be fully mitigated by implementation of Mitigation Measures *Bio-1* through *Bio-10*, the details of which are described in the Final Program EIR in Section 5.1.2, and incorporated by reference herein. The studies, surveys, and monitoring that would mitigate direct and cumulative impacts to candidate, sensitive, or special status species include preparation of a biological resources report for bikeways proposed in naturally vegetated areas or within or adjacent to the Multi-Habitat Planning Area (MHPA); incorporation of designs that conform to requirements of the management directives of the City's Subarea Plan and that minimize impacts to biological resources; conformance to all applicable MHPA Land Use Adjacency Guidelines; implementation of biological mitigation for direct impacts to upland habitat in accordance with the City's Biology Guidelines; avoidance of impacts to wetlands and development of a conceptual mitigation program (which includes identification of the mitigation site) for locations where impacts to wetlands cannot be avoided; provision for continued wildlife movement through wildlife corridors as identified in the Multiple Species Conservation Program (MSCP) Subarea Plan or as identified through project-level analysis; limiting of construction activities where the coastal California gnatcatchers, least Bell's vireo, and/or the southwestern willow flycatcher are present; pre-grading survey for active raptor nests if project grading is proposed during the raptor breeding season; pre-grading survey for active nests if project grading/brush management is proposed in or adjacent to native habitat during the typical bird breeding season; and on-site biological resources monitoring at a minimum when initial grading of Off-Street Bikeways is occurring adjacent to wetland habitats and/or potential occupied avian or sensitive species habitat.

Mitigation Measures *Bio-1* through *Bio-10* are feasible, and have been made binding through incorporation in the project's conditions of approval and through the MMRP.

2. Biological Resources (DIRECT and INDIRECT impact to sensitive habitats, including wetlands.)

Impact: There is the potential for implementation of On-street Bikeways Without Widening to result in indirect impacts to adjacent sensitive habitats, including bogs,

marshes, riparian habitat, or other wetlands, if a bikeway is located adjacent to the MHPA or other sensitive habitats. On-street Bikeways With Widening and Off-street Bikeways are proposed throughout the City, including areas that may be within or adjacent to Tier I, Tier II, Tier IIIA, or Tier IIIB Habitats, or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS, such as wetlands, including vernal pools. The development of On-street Bikeways With Widening and Off-street Bikeways in proximity to sensitive habitats may also result in increased public access (authorized or unauthorized) near these sensitive areas, creating the potential for adverse impacts.

Finding: Significant but mitigated.

Facts in support of Finding: Significant direct and indirect impacts to sensitive habitats would be fully mitigated by implementation of Mitigation Measures *Bio-1* through *Bio-10*, the details of which are described in the Final Program EIR in Section 5.1.2, and incorporated by reference herein.

Mitigation Measures *Bio-1* through *Bio-10* are feasible, and have been made binding through incorporation in the project's conditions of approval and through the MMRP.

3. Biological Resources (DIRECT and INDIRECT impacts to wildlife movements)

Impact: Off-street Bikeways could require construction of structures, such as retaining walls, bridges, or culverts, which could interfere with wildlife corridors, resulting in potentially significant direct impacts. Potentially significant short and long-term indirect impacts related to construction noise, lighting, and increased public access also could occur for On-street Bikeways Without Widening, On-street Bikeways With Widening, and Off-street Bikeways.

Finding: Significant but mitigated.

Facts in support of Finding: Significant direct and indirect impacts to wildlife movement would be fully mitigated by implementation of Mitigation Measure *Bio-6*, the details of which are described in the Final Program EIR in Section 5.1.2, and incorporated by reference herein.

Mitigation Measure *Bio-6* is feasible, and has been made binding through incorporation in the project's conditions of approval and through the MMRP.

4. Biological Resources (INDIRECT adverse edge effects to the MHPA.)

Impact: Although trails, including Class I Bike Paths, are considered to be a compatible land use within preserve areas, possible indirect impacts (edge effects) to the MHPA by adjacent bikeways could include water quality degradation, exotic plant species, fugitive dust, lighting, noise, and human intrusion.

Finding: Significant but mitigated.

Facts in support of Finding: Significant indirect adverse edge effects to the MHPA would be fully mitigated by implementation of Mitigation Measure *Bio-3*, the details of which are described in the Final Program EIR in Section 5.1.2, and incorporated by reference herein.

Mitigation Measure *Bio-3* is feasible, and has been made binding through incorporation in the project's conditions of approval and through the MMRP.

5. Biological Resources (DIRECT and INDIRECT impacts related to invasive species.)

Impact: Non-native plants could colonize areas disturbed during construction of On-street With Widening or Off-street Bikeways in proximity to natural open space areas, and potentially spread into these adjacent open space areas. Such invasions could displace native plant species, reducing diversity, increasing flammability and fire frequency, change ground and surface water levels, and adversely affect the native wildlife that are dependent on native vegetation.

Finding: Significant but mitigated.

Facts in support of Finding: Significant direct and indirect impacts related to invasive species would be fully mitigated by implementation of Mitigation Measure *Bio-3*, the details of which are described in the Final Program EIR in Section 5.1.2, and incorporated by reference herein.

Mitigation Measure *Bio-3* is feasible, and has been made binding through incorporation in the project's conditions of approval and through the MMRP.

6. Historical Resources (DIRECT and INDIRECT impacts to prehistoric or historic buildings, structures, objects or sites or existing religious or sacred uses.)

Impact: On-street Bikeways Without Widening could involve the installation of traffic lights (new or relocated), utility work, or major signage requiring excavation, which would have the potential to adversely affect archaeological resources. On-street bikeways proposed in historic districts containing numerous historic buildings and objects such as sidewalk date stamps could involve excavation or grading, and all earthmoving activities have the potential to adversely affect archaeological resources. The setting of an historical resource may be directly affected, for instance, by removal of landscaping. Historical resources can include open spaces, trees (i.e., heritage trees), or landscaping-in and of themselves-or as part of an historical structure's setting that could be disturbed. Implementation of proposed bikeways and other facilities implemented under the BMP Update may introduce new facilities in proximity to a resource and thereby indirectly impact the setting of an historical resource. Bikeway projects and

other facilities implemented under the BMP Update may also result in increased public accessibility to historical resources. Increased public access, particularly unauthorized access, to open space areas that could contain previously inaccessible archaeological resources could result in an increased potential for vandalism and site destruction.

Finding: Significant but mitigated.

Facts in support of Finding: Potentially significant direct and indirect impacts to historical resources would be fully mitigated by implementation of Mitigation Measure *Hist-1*, the details of which are described in the Final Program EIR in Section 5.2.2, and incorporated by reference herein. This measure involves implementation of five steps to determine: (1) the presence of archaeological resources and (2) the appropriate mitigation for any significant resources that may be impacted by a development activity.

Mitigation Measure *Hist-1* is feasible, and has been made binding through incorporation in the project's conditions of approval and through the MMRP.

7. Historical Resources (DIRECT and INDIRECT impacts to human remains.)

Impact: On-street bikeways could involve the installation of traffic lights (new or relocated), utility work, or major signage requiring excavation, all earthmoving activities would have the potential to adversely affect buried human remains. The potential for encountering human remains in the area of proposed bikeway improvements and other facilities implemented under the BMP Update exists, particularly for Off-street Bikeways. Increased public access, particularly unauthorized access, to open space areas that could contain previously inaccessible subsurface artifacts such as human remains could result in indirect impacts due to increased potential for vandalism and site destruction.

Finding: Significant but mitigated.

Facts in support of Finding: Potentially significant direct and indirect impacts to human remains would be fully mitigated by implementation of Mitigation Measure *Hist-1*, the details of which are described in the Final Program EIR in Section 5.2.2, and incorporated by reference herein. This measure involves implementation of five steps to determine: (1) the presence of archaeological resources (including human remains), and (2) the appropriate mitigation for any significant resources that may be impacted by a development activity. In the event that human remains are encountered during data recovery and/or a monitoring program, the provisions of PRC Section 5097 must be followed. These provisions would be outlined in the MMRP included in the environmental document prepared for the specific bikeway project.

Mitigation Measure *Hist-1* is feasible, and has been made binding through incorporation in the project's conditions of approval and through the MMRP.

8. Visual Quality/Neighborhood Character (DIRECT impacts due to view blockage.)

Impact: The bikeways themselves are expected to have a small footprint and low profile. However, On-street Bikeways With Widening and Off-street Bikeways could require the installation of retaining walls, bridges, or embankments. Depending on the height, bulk, placement, and design of such elements, a substantial view blockage could occur.

Finding: Significant but mitigated.

Facts in support of Finding: Potentially significant direct impacts due to view blockage would be fully mitigated by implementation of Mitigation Measures *Vis-1* and *Vis-2*, the details of which are described in the Final Program EIR in Section 5.4.2, and incorporated by reference herein. These measures involve preparation of a visual study during design of a proposed bikeway or facility implemented under the BMP Update that proposes features that could result in visual impacts related to view blockage to adequately assess the potential visual impacts. The visual study shall include assessment of the existing visual environment, including existing views, aesthetics, neighborhood character, and landforms, and evaluate the feasibility of designing the particular feature that could generate visual impacts so that it does not cause impacts, including issues associated with blocking scenic views. If a feature cannot be redesigned or screened visually by incorporating elements such as landscaping or berming to avoid the impact, or the bikeway cannot be designed to eliminate the need for that particular feature, the City's process for subsequent evaluation of discretionary projects shall be followed. The process includes environmental review and documentation pursuant to CEQA, as well as an analysis of the individual project for consistency with the goals, policies, and recommendations of the General Plan and the applicable Community Plan. The process may require development of additional site-specific measures to avoid or reduce significant impacts.

Mitigation Measures *Vis-1* and *Vis-2* are feasible, and have been made binding through incorporation in the project's conditions of approval and through the MMRP.

9. Visual Quality/Neighborhood Character (DIRECT impacts due to negative aesthetic appearance.)

Impact: On-street Bikeways With Widening and Off-street Bikeways could require the installation of retaining walls, bridges, embankments, or shoreline protection. Depending on the height, bulk, placement, and design of such elements, potentially significant direct impacts related to negative aesthetics could occur.

Finding: Significant but mitigated.

Facts in support of Finding: Potentially significant direct impacts due to negative aesthetic appearance would be fully mitigated by implementation of Mitigation Measures

Vis-1 and *Vis-2*, the details of which are described in the Final Program EIR in Section 5.4.2, and incorporated by reference herein. These measures include preparation of a visual study during design of a proposed bikeway or facility implemented under the BMP Update that proposes features that could result in visual impacts related to negative aesthetics to adequately assess the potential visual impacts, and following the City's process for subsequent evaluation of discretionary projects, which may require development of additional site-specific measures to avoid or reduce significant impacts.

Mitigation Measures *Vis-1* and *Vis-2* are feasible, and have been made binding through incorporation in the project's conditions of approval and through the MMRP.

10. Visual Quality/Neighborhood Character (DIRECT impacts to neighborhood character)

Impact: On-street bikeways With Widening and Off-street Bikeways could require the installation of retaining walls, bridges, embankments, or other stabilizing structures. Depending on the height, bulk, placement, and design of such elements, potentially significant direct impacts to neighborhood character could occur. Additionally, bikeways and other facilities implemented under the BMP Update could potentially result in the loss of trees or a landmark within a particular corridor, which could result in potentially significant direct neighborhood character impacts.

Finding: Significant but mitigated.

Facts in support of Finding: Potentially significant direct impacts to neighborhood character would be fully mitigated by implementation of Mitigation Measures *Vis-1* through *Vis-3*, the details of which are described in the Final Program EIR in Section 5.4.2, and incorporated by reference herein. These measure include preparation of a visual study during design of a proposed bikeway or facility implemented under the BMP Update that proposes features that could result in visual impacts related to neighborhood character to adequately assess the potential visual impacts, and following the City's process for subsequent evaluation of discretionary projects , which may require development of additional site-specific measures to avoid or reduce significant impacts. Also, when avoidance is not possible, tree protection during construction, tree transplanting or tree replacements shall be required. Any mature trees that must be removed shall be replaced at a minimum 1:1 ratio with like or acceptable substitute, as determined by the City.

Mitigation Measures *Vis-1* through *Vis-3* are feasible, and have been made binding through incorporation in the project's conditions of approval and through the MMRP.

11. Visual Quality/Neighborhood Character (DIRECT impacts to landform alteration.)

Impact: On-street Bikeways With Widening and Off-street Bikeways could require the installation of retaining walls, bridges, embankments, or shoreline protection. Depending

on the placement and design of such elements, potentially significant direct impacts to landform alteration could occur.

Finding: Significant but mitigated.

Facts in support of Finding: Potentially significant direct impacts to landform alteration would be fully mitigated by implementation of Mitigation Measures *Vis-1* and *Vis-2*, the details of which are described in the Final Program EIR in Section 5.4.2, and incorporated by reference herein. These measures include preparation of a visual study during design of a proposed bikeway or facility implemented under the BMP Update that proposes features that could result in visual impacts related to landform alteration to adequately assess the potential visual impacts, and following the City's process for subsequent evaluation of discretionary projects, which may require development of additional site-specific measures to avoid or reduce significant impacts.

Mitigation Measures *Vis-1* and *Vis-2* are feasible, and have been made binding through incorporation in the project's conditions of approval and through the MMRP.

12. Visual Quality/Neighborhood Character (DIRECT impacts due to new lighting.)

Impact: Night lighting would be installed where appropriate for Off-street Bikeways. New lighting adjacent to or within natural or residential areas may be relatively substantial compared to the existing condition, resulting in potentially significant direct impacts related to lighting.

Finding: Significant but mitigated.

Facts in support of Finding: Potentially significant direct impacts due to lighting would be fully mitigated by implementation of Mitigation Measure *Vis-4*, the details of which are described in the Final Program EIR in Section 5.4.2, and incorporated by reference herein. This measure includes the requirement for lighting of Off-street Bikeways adjacent to open space or residential areas to be limited to that required for safety, and for lighting to be shielded and directed away from open space areas and residences and onto the bikeway itself.

Mitigation Measure *Vis-4* is feasible, and has been made binding through incorporation in the project's conditions of approval and through the MMRP.

13. Paleontological Resources (DIRECT impacts to fossils.)

Impact: Construction of On-street or Off-street Bikeways could require over 1,000 cubic yards of excavation within a high resource potential geologic deposit/formation/rock unit, or over 2,000 cubic yards of excavation within a medium resource potential geologic deposit/formation/rock unit, which would exceed the City's significance thresholds for

paleontological resources. This results in potentially significant direct impacts to paleontological resources.

Finding: Significant but mitigated.

Facts in support of Finding: Potentially significant direct impacts to paleontological resources with a high or medium paleontological resource sensitivity rating would be fully mitigated by implementation of Mitigation Measure *Paleo-1*, the details of which are described in the Final Program EIR in Section 5.5.2, and incorporated by reference herein. This measure includes a project level analysis of potential impacts on paleontological resources and monitoring during construction.

Mitigation Measure *Paleo-1* is feasible, and has been made binding through incorporation in the project's conditions of approval and through the MMRP.

14. Geologic Conditions (DIRECT and INDIRECT impacts due to geologic conditions, including by being located in an area subject to geologic hazards, unstable geologic materials, or erosion.)

Impact: Segments of the proposed facilities could be sited over or near a fault, within or near landslides and slide prone areas, on ground with the potential for liquefaction, along or adjacent to coastal bluffs subject to erosion or landslides, and on or near other terrain with unfavorable geology. Facilities may also be located on highly erodible soils or in areas subject to erosion due to factors including location near flowing water. Although all facilities built under the BMP Update are expected to comply with all applicable regulations, the success of such efforts would be specific to each particular bikeway or facility and is unknown at this level of planning.

Finding: Significant but mitigated.

Facts in support of Finding: Potentially significant direct and indirect impacts due to geologic conditions would be fully mitigated by implementation of Mitigation Measures *Geo-1* and *Geo-2*, the details of which are described in the Final Program EIR in Section 5.6.2, and incorporated by reference herein. These measures include preparation of a project-specific geologic report during design of a proposed bikeway or facility that proposes features that could generate impacts to geologic conditions, including by being located in an area subject to geologic hazards, unstable geologic materials, or erosion to adequately assess the potential impacts due to geologic conditions, and incorporation of the recommendations of the project-specific report into each project design.

Mitigation Measures *Geo-1* and *Geo-2* are feasible, and have been made binding through incorporation in the project's conditions of approval and through the MMRP.

VI.B. Findings Regarding Mitigation Measures which are the Responsibility of Another Agency (CEQA §21081(a)(2))

The City, having reviewed and considered the information contained in the Final Program EIR and administrative record of proceedings, finds pursuant to CEQA §21081(a)(2) and State CEQA Guidelines §15091(a)(2) that there are no changes or alterations which would reduce significant impacts that are within the responsibility and jurisdiction of another public agency.

VI.C. Findings Regarding Infeasible Mitigation Measures And Alternatives (CEQA §21081(a)(3))

The City, having reviewed and considered the information contained in the Final Program EIR, finds pursuant to CEQA §21081(a)(3) and State CEQA Guidelines §15091(a)(3) that (i) the Program EIR considers a reasonable range of project alternatives, and (ii) specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible specific mitigation measures and project alternatives identified in the Final Program EIR which could reduce the following significant direct and/or cumulative Transportation/Circulation impacts to below a level of significance:

- Construction and operational impacts to the existing street system (direct and cumulative); and
- Impacts to circulation movements and access to public areas due to changes in lane configurations (direct and cumulative).

1. Infeasibility of Mitigation for Significant Unmitigated Impacts

a. Transportation/Circulation (DIRECT and CUMULATIVE impacts to the existing street system)

Impact: Some On-street Bikeways Without Widening and On-street Bikeways With Widening could require restriping of existing public streets and rights-of-way that would alter the existing lane configuration of the roadway by removing one or more travel and/or turn lanes, potentially impacting the capacity for vehicles on the roadway. Lane removal could cause an intersection or roadway segment to operate at an unacceptable level of service (LOS) or could cause the delay or volume to capacity ratio (V/C) in roadway facilities already operating at unacceptable LOS to exceed the City's significance thresholds. Off-street Bikeways could also necessitate changes in lane configurations and/or traffic signal operations, where the proposed bikeway would intersect with the roadway, resulting in potentially significant traffic impacts. In addition, potential construction impacts associated with On-street Bikeways With Widening and Off-street Bikeways would be potentially significant due to the possibility of required short-term lane closures and detours.

Finding: Significant and potentially not mitigated.

Facts in support of Finding: Projects implementing on-street bikeways would be required to implement Mitigation Measures *Trans-1* and *Trans-2*, the details of which are described in the Final Program EIR in Section 5.3.2, and incorporated by reference herein. These measures involve requirements for an analysis to assess potential traffic impacts that includes an assessment of existing LOS and an evaluation of the feasibility of accommodating the proposed bike lane or route within the existing roadway so that it does not cause a significant traffic impact to any roadway segment or intersection. In addition, the analysis shall assess how the proposed roadway changes would affect bicycling conditions. The analysis is also required to include an assessment of potential impacts during construction for On-street Bikeways With Widening and Off-street Bikeways. The mitigation also requires that if the removal of a travel and/or turn lane would cause an intersection or roadway segment to operate at an unacceptable LOS, the project will be redesigned and/or mitigation measures identified in the project-specific traffic analysis will be implemented, with the goal to reduce traffic impacts on the affected intersection or roadway segment, ideally to less than significant levels, if such redesign or mitigation is consistent with project objectives, pedestrian circulation needs, or other community goals. Such design or mitigation measures might include road or interchange widening, elimination of parking, evaluation of alternate bikeway routes, or other measures. It is unknown if such measures would reduce potential transportation/circulation impacts to below a level of significance. This would need to be verified on a project by project basis, so the potential exists for significant, unavoidable traffic impacts to occur.

b. Transportation/Circulation (DIRECT AND CUMULATIVE impacts to circulation movements, including public access to beaches, parks, or other open space area)

Impact: On-street Bikeways Without Widening and On-street Bikeways With Widening would have the potential for direct significant impacts to circulation movements, including access to public areas such as beaches, parks, and open space due to the possibility for the need for restriping of existing public streets and rights-of-way that would alter the existing lane configuration of the roadway by removing one or more travel and/or turn lanes and/or sidewalks. Off-street Bikeways could also necessitate changes in lane configurations if the proposed bikeway would intersect with the roadway, resulting in potentially significant traffic impacts.

Finding: Significant and potentially not mitigated.

Facts in support of Finding: Projects implementing on-street bikeways would be required to implement Mitigation Measures *Trans-1* and *Trans-2*, the details of which are described in the Final Program EIR in Section 5.3.2, and incorporated by reference herein. These measures involve requirements for an analysis to assess potential traffic impacts and redesign and/or implementation of mitigation measures identified in the project-specific traffic analysis with the goal to reduce traffic impacts on the affected

intersection or roadway segment, ideally to less than significant levels, if such redesign or mitigation is consistent with project objectives, pedestrian circulation needs, or other community goals. It is unknown if such measures would reduce potential transportation/circulation impacts to below a level of significance. This would need to be verified on a project by project basis, so the potential exists for significant, unavoidable traffic impacts to occur.

2. Infeasibility of Project Alternatives to Reduce or Avoid Significant Impacts

Pursuant to §15126.6(a) of the State CEQA Guidelines, the Final Program EIR examines project alternatives in terms of their ability to meet the primary objectives of the project and eliminate or further reduce significant environmental effects. Based on these parameters, the following alternatives were considered:

- No Project/No New Bikeways - This alternative assumes that no new bicycle facilities are constructed beyond those in existence.
- No Project/Implementation of Current Bicycle Master Plan - This alternative assumes that the City's bicycle network is implemented pursuant to the currently adopted 2002 BMP.
- Reduced Traffic Impact - This alternative assumes that all facilities of the BMP Update would be implemented except for bikeways where lane removals and/or median modifications (or other proposed features) would significantly impact intersections or roadways.
- Reduced Biology Impact - This alternative assumes that all facilities of the BMP Update would be implemented except for bikeways that would impact sensitive habitat (Multiple Species Conservation Plan [MSCP] Tier I, II, and III habitats).

A brief description of each of the alternatives and the basis for concluding their infeasibility follows. The Final Program EIR concludes that the No Project/No New Bikeways Alternative would be the Environmentally Superior Alternative because it would have the least physical impacts to the environment. However, pursuant to State CEQA Guidelines Section 15126.6(d)(2), "if the environmentally superior alternative is the 'no project' alternative, the EIR shall identify an environmentally superior alternative among the other alternatives." Therefore, the Program EIR identifies the Reduced Traffic Impact Alternative as the Environmentally Superior Alternative because it would avoid potentially unmitigable impacts and possibly implement fewer miles of facilities.

a. No Project/No New Bikeways Alternative

Description: With the No Project/No New Bikeways Alternative, the existing bikeway network would remain as is. The City would maintain the approximately 511 total miles of existing bikeways. The proposed additional bikeways would not be constructed.

Finding: The No Project/No New Bikeways Alternative would avoid all potential impacts of the BMP Update, but the alternative would not provide the beneficial impacts of enhancing bicycle and pedestrian circulation and safety, which would result in a

reduction of vehicular traffic throughout the City. The No Project/No New Bikeways Alternative also would not provide other beneficial impacts on air quality and energy, and would not provide a framework for an expanded bicycle network, improve local and regional bicycle connectivity, provide a comprehensive bikeway network, or supplement the City's General Plan Mobility Element.

The No Project/No New Bikeways Alternative would not meet any of the BMP Update objectives. As a result, this alternative was rejected by the City.

b. No Project/Implementation of Current Bicycle Master Plan Alternative

Description: With the No Project/Implementation of Current Bicycle Master Plan Alternative, the existing bikeway network would be improved to include the bikeways and other facilities proposed in the current San Diego Bicycle Master Plan, the 2002 BMP.

Finding: Overall, the 2002 BMP would have more miles of bikeways likely to cause impacts compared to the proposed BMP Update (67 miles versus 57.5 miles of Class I or mix of Class II and III). Based on this comparison, the 2002 BMP would have greater impacts than the BMP Update. This comparison does not take into account the lower priority projects proposed for either program, however. The comparison is therefore limited in terms of determining which plan would be environmentally superior in terms of actual physical impacts. The No Project/Implementation of Current Bicycle Master Plan Alternative would provide a framework for an expanded bicycle network, improve local and regional bicycle connectivity, and provide a comprehensive bikeway network.

The No Project/Implementation of Current Bicycle Master Plan alternative would meet most of the BMP Update objectives, but would not meet the objective of supplementing the City's General Plan Mobility Element with appropriate policies to the same degree as the BMP Update, because the 2002 BMP was prepared prior to the City's updated 2008 General Plan. As a result, this alternative was rejected by the City.

c. Reduced Traffic Impact Alternative

Description: With the Reduced Traffic Impact Alternative, all facilities and policies of the BMP Update would be implemented with the following exception: bikeways where lane removals and/or median modifications (or other proposed features) are demonstrated through project-specific traffic analysis to significantly impact intersections or roadways would not be implemented. These bikeways could include a Class I (Bike Path), Class II (Bike Lane), or Class III (Bike Route) facility, depending on the type of traffic impact determined to occur from each proposed facility on a project by project basis.

Finding: This alternative would avoid some of the temporary and permanent direct and indirect potential impacts associated with constructing the bikeways proposed by the BMP Update because fewer bikeways would be implemented. In particular, the Reduced Traffic Impact Alternative would avoid the potentially significant unavoidable

Traffic/Circulation impacts, and possibly avoid other impacts that could be caused by those bikeways that would otherwise have been implemented by the BMP Update. The Reduced Traffic Impact Alternative would have similar Biological Resources impacts to the BMP Update because most of the Class I bikeways would likely be implemented. The Reduced Traffic Impact Alternative would meet most of the BMP Update objectives, but would not provide beneficial impacts to the same degree as the complete BMP Update, including enhancing bicycle and pedestrian circulation and safety, reducing vehicular traffic, reducing vehicular emissions of pollutants and greenhouse gas emissions in the long term, and reducing overall energy consumption related to transportation.

This alternative would have fewer impacts than the BMP Update, but also would provide fewer beneficial impacts. The overall network of bicycle facilities resulting from this alternative would have reduced continuity and may create gaps since some on-street facilities would not be implemented. In addition, over-reliance on avoiding impacts to traffic circulation is counterproductive to enhancing bicycling as a viable means of transportation and thus reducing motor vehicle trips to the greatest degree. The greatest net benefit would be achieved by the alternative with the most benefits and least adverse impacts. In particular, the greatest environmental benefits (including to air quality and reduction of greenhouse gas emissions) would arise from the alternative that best promotes bicycling as a safe and desirable means of transportation and thus reduces motor vehicle trips as much as possible. Because the Reduced Traffic Impact Alternative would not provide this benefit, this alternative was rejected by the City.

d. Reduced Biology Impact Alternative

Description: With the Reduced Biology Impact Alternative, all facilities and policies of the BMP Update would be implemented with the following exception: bikeways where any proposed features are demonstrated through project-specific biological resources analysis to significantly impact sensitive habitat (MSCP Tier I, II, and III habitats) would not be implemented. These bikeways would most likely be Class I (Bike Path) facilities, depending on the type of biological resources impact determined to occur from each proposed facility on a project by project basis.

Finding: This alternative would avoid potentially significant impacts to biological resources, and possibly avoid other impacts that could be caused by those bikeways that would otherwise have been implemented by the BMP Update. However, as with the proposed project, the Reduced Biology Impact Alternative would still result in potentially significant unavoidable Traffic/Circulation impacts.

Although the Reduced Biology Impact Alternative would avoid certain potentially significant impacts of the BMP Update and meet most of the BMP Update objectives, the alternative would not provide beneficial impacts to the same degree as the complete BMP Update, including enhancing bicycle and pedestrian circulation and safety, reducing vehicular traffic, reducing vehicular emissions of pollutants and greenhouse gas emissions in the long term, and reducing overall energy consumption related to

transportation. It also may not fully implement General Plan policies to provide access to, and connect open space areas (Recreation Element Policies RE-D.6 and RE-D.7).

This alternative would likely have fewer impacts than the BMP Update, but also would provide fewer beneficial impacts. For this reason and the fact that it does not avoid the project's significant unavoidable Traffic/Circulation impacts, this alternative was rejected by the City.

VII. STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to §21081(b) of CEQA, §15093 and 15043(b) of the State CEQA Guidelines, the City is required to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable adverse environmental impacts when determining whether to approve the project.

If the specific economic, legal, social, technological, or other benefits, including considerations for the provision of employment opportunities for highly trained workers outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable pursuant to Public Resources Code §21081. CEQA further requires that when the lead agency approves a project which will result in the occurrence of significant effects which are identified in the Final Program EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the Final Program EIR and/or other information in the record.

Pursuant to Public Resources Code § 21081(b) and State CEQA Guidelines §15093, the City has balanced the benefits of the project against its unavoidable adverse impacts to Transportation/Circulation (direct and cumulative), and has adopted all feasible mitigation measures with respect to these significant and unmitigable impacts. The City also has examined alternatives to the proposed project and has rejected them, finding that none of them would fully meet the project objectives and only one would result in substantial reduction or avoidance of all the project's significant and unmitigated environmental impacts.

Having considered the entire administrative record on the project, and (i) made a reasonable and good faith effort to eliminate or substantially mitigate the impacts resulting from the project, adopting all feasible mitigation measures; (ii) examined a reasonable range of alternatives to the project and, based on this examination, determined that all of these alternatives are either environmentally inferior, fail to meet the project objectives, or are not economically or otherwise viable, and therefore should be rejected (even the Reduced Traffic Impact Alternative, which would avoid the need for a Statement of Overriding Considerations for potentially significant and unavoidable Traffic/Circulation impacts); (iii) recognized all significant, unavoidable impacts; and (iv) balanced the benefits of the project against the project's significant and unavoidable effects, the City hereby finds that the following economic, legal, social, technological, aesthetic, environmental and other benefits of the project outweigh the potential

unavoidable adverse impacts and render those potential adverse environmental impacts acceptable based upon the following considerations, set forth below. Each of the separate benefits of the proposed project, as stated herein, is determined to be, unto itself and independent of the other project benefits, a basis for overriding all unavoidable adverse environmental impacts identified in these Findings. Project benefits include:

The proposed improvements in the BMP Update would promote bicycling as a viable means of transportation.

The proposed improvements in the BMP Update would reduce motor vehicle trips, resulting in improvements in air quality and reduction in greenhouse gas emissions.

The proposed improvements in the BMP Update would enhance the overall quality and quantity of bikeways and associated support facilities.

The proposed improvements in the BMP Update would help implement regional and local land use plans that call for bikeway improvements to reduce reliance on the automobile.

The project would create skilled employment opportunities for activities associated with designing, constructing, and maintaining planned improvements.

VIII. CONCLUSION

For the foregoing reasons, the City finds that the project's adverse, unavoidable environmental impacts are outweighed by the above-referenced benefits, any one of which individually would be sufficient to outweigh the adverse environmental effects of the project. Therefore, the City has adopted these Findings and Statement of Overriding Considerations.