DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT

Vector Habitat Remediation Program Project

SCH No. 2009011067

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ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
μ/m^3	micrograms per cubic meter
AAQS	ambient air quality standards
AB	Assembly Bill
ACM	asbestos-containing material
ACOE	U.S. Army Corps of Engineers
ADT	average daily trips
AGI	American Geological Institute
AMSL	above mean sea level
B.P.	before present
Basin Plan	Water Quality Control Plan for the San Diego Basin
BMPs	Best Management Practices
Board	County Board of Supervisors
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
Cal/EPA	California Environmental Protection Agency
CalARP	California Accidental Release Prevention
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CDC	Centers for Disease Control and Prevention
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CH_4	methane
CHHSLs	California Human Health Screening Levels
Chisels	California Human Health Screening Levels
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent

County	County of San Diego
CRHR	California Register of Historical Resources
CWA	Clean Water Act
CWC	California Water Code
db	decibels
dBA	A-weighting frequency scale
DEH	Department of Environmental Health
DMG	Division of Mines and Geology
DPW	Department of Public Works
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FC	Federal candidate for listing
FE	Federally listed Endangered
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
FT	Federally listed as Threatened
FUDS	Formerly Used Defense Site
GHGs	greenhouse gases
GWP	global warming potential
H&SC	Health and Safety Code
HFCs	hydrofluorocarbons
HMBP	Hazardous Materials Business Plan
HR	House Resolution
IPCC	Intergovernmental Panel on Climate Change
LBP	lead-based paint
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MCLs	Maximum Contaminant Levels
MEP	maximum extent possible
MHCP	Multiple Habitat Conservation Plan
MLD	Most Likely Descendant
$MMTCO_2e$	CO_2 equivalent million metric tons
MRZ	mineral resource zone
MSCP	Multiple Species Conservation Plan
$MTCO_2e$	metric tons of CO_2 equivalent
N_2O	nitrous oxide

NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSLUs	noise-sensitive land uses
O_3	ozone
OHWM	ordinary high-water mark
OPR	Office of Planning and Research
P-C	Production-Consumption
PCC	Portland cement concrete
PEIR	Program Environmental Impact Report
PFCs	perfluorocarbons
PFE	Public Facilities Element
PM10	particulate matter less than or equal to 10 micrometers in size
PM2.5	particulate matter less than 2.5 microns in size
ppm	parts per million
PRC	Public Resources Code
PRGs	Preliminary Remediation Goals
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act
RGP	Regional General Permit
RMP	Risk Management Plan
RPO	Resource Protection Ordinance
RWQCB	Regional Water Quality Control Board
SAM	Site Assessment and Mitigation
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCWA	San Diego County Water Authority
SDNHM	San Diego Natural History Museum
SDRAQS	San Diego Regional Air Quality Strategy
SE	State-listed as Endangered
SF_6	sulfur hexafluoride

SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act of 1975
SMGB	State Mining and Geology Board
SO_2	sulfur dioxide
SR	State-listed as rare
ST	State-listed as threatened
SUSMP	Standard Urban Stormwater Mitigation Plan
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	Toxic air contaminants
TMDLs	total maximum daily loads
UBC	Uniform Building Code
USC	U.S. Government Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
VCP	Vector Control Program
VHRP	Vector Habitat Remediation Program
VMT	vehicle miles traveled
VNAEP	Vector Nuisance Abatement Enforcement Program
VOCs	volatile organic compounds
WQOs	water quality objectives
WWM	Wastewater Management Section

S.1 PROJECT SYNOPSIS

S.1.1 Description

The County of San Diego's (County's) Vector Control Program (VCP) is an existing public health program that was implemented to monitor and control mosquitoes and other disease-carrying insects and rodents in San Diego County. The VCP also includes regularly testing for diseases that are spread by mosquitoes, other insects, and rodents. The VCP has provided mosquito and vector control services for over 30 years, and is managed by the County Department of Environmental Health (DEH) and governed by the County Board of Supervisors (Board).

The planned Vector Habitat Remediation Program (VHRP) addressed in this Program Environmental Impact Report (PEIR) will be a primary VCP tool for addressing long-term solutions that reduce mosquito breeding habitat. Under the proposed VHRP, accumulated and future funds from the assessment approved by the 2005 ballot measure (discussed in Section 1.1.1) would be used to implement mosquito breeding habitat remediation projects throughout San Diego County, including within both developed and natural areas. Within wetlands, a primary goal of the VHRP is to eliminate or reduce breeding habitat in a manner that balances the water quality, biologic, aesthetic, and hydrologic values of wetlands with the need to protect human populations and animals from mosquito-borne disease. In many settings, management and design measures to eliminate or reduce mosquito breeding habitat will also help bring the ecology of the wetland back into balance.

Under this VHRP, DEH will provide funding to government and private entities to implement vegetation removal, wetland enhancement, and other related projects that will reduce or remove mosquito breeding habitat. Projects implemented under the proposed VHRP will be funded or partially funded by DEH through either (1) direct agreements with landowners on a continuous basis for smaller projects or (2) a competitive grant program with an annual, or more frequent, award cycle for larger projects.

The VHRP includes three basic concepts for reducing mosquito breeding habitat: wetland and water quality treatment design, water management, and vegetation manipulation. Wetland and water quality treatment design concepts would involve changes to the physical characteristics of aquatic systems. Water management would involve design concepts that would result in a reduction of water retention time to less than 72 hours as well as increased water agitation and wave action. Vegetation manipulation would generally involve the removal of dense vegetation such that only narrow strips remain along wetland margins. Specific activities anticipated to be conducted under the VHRP include trash and debris removal, vegetation removal (by hand or machinery), sediment (rocks, sand, etc.) removal, flow regime enhancement (to change/manage

water levels, wave action, etc.), revegetation, and retrofitting stormwater facilities to manage mosquitoes (e.g. install spinning wheels to promote wave action, cap open water structures, etc.).

S.1.2 Location

The project is located in southwestern California, within San Diego County. San Diego County is bounded by the Counties of Orange and Riverside to the north, the County of Imperial to the east, the United States/Mexico international border to the south, and the Pacific Ocean to the west. The planned VHRP would review and potentially provide funding to projects located anywhere within San Diego County (excluding military and tribal lands) that demonstrate the reduction or elimination of mosquito breeding habitat in established wetlands, flood control facilities, effluent treatment ponds, and stormwater treatment facilities. The specific locations of the future actions that may occur under the VHRP are unknown at this time.

S.1.3 Setting

San Diego County supports a wide range of climates, land uses, and habitat types. The San Diego Air Pollution Control District (SDAPCD) identifies five distinct climate zones as occurring within San Diego County: Maritime, Coastal, Transitional, Interior, and Desert. These climatic zones run nearly parallel to the coast, with each having its own specific characteristics.

Land uses within San Diego County vary between the urban areas along the coast and the more rural areas in the eastern regions. Urban uses tend to consist of large-scale residential and commercial uses, as well as small-scale agricultural and industrial uses. Rural uses tend to include small-scale residential and commercial uses, and large-scale agricultural and industrial uses.

Mosquito reproduction (breeding) is largely dependent on areas where still, shallow water persists for more than a few days. Areas with these types of characteristics (i.e., still, shallow water, and/or stagnant shallow pools) occur throughout the County (including the coastal and inland areas) and would provide the setting for future projects that are implemented under the VHRP.

S.2 SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES THAT REDUCE OR AVOID THE SIGNIFICANT EFFECTS

Table S-1, Summary of Significant Effects, provides a summary of the impacts, mitigation, and level of significance after mitigation for each significant effect for the proposed project addressed in *Chapter 2.0* of this PEIR. These mitigation measures will be implemented whenever a corresponding impact is identified for a particular project to be constructed under the VHRP. If a specific impact is not identified for a particular project, implementation of the associated mitigation measure will not be required. If an individual project implemented under

the VHRP identifies additional significant impacts beyond those identified in this PEIR (or a significant increase in an identified impact) or if the project proposes mitigation measures other than those outlined in this PEIR, then subsequent CEQA analysis will be required to address the significant impacts and to identify mitigation measures that would reduce all impacts to below a level of significance.

S.3 AREAS OF CONTROVERSY

Respondents to the Notice of Preparation (NOP) public scoping period expressed concern about some environmental issues. While none of these issues are considered controversial to the project, such issues include consistency with approved Multiple Species Conservation Plan (MSCP) Subarea Plans and Multiple Habitat Conservation Plan (MHCP) Subarea Plans; potential impacts on biological resources; and potential impacts on cultural resources. These concerns have been identified as areas of known controversy and are analyzed in the corresponding issue areas in this PEIR. *Appendix A* contains the comment letters received in response to the NOP.

S.4 ISSUES TO BE RESOLVED BY THE DECISION-MAKING BODY

The Board would be required to make decisions concerning the significant impacts that would result with implementation of the proposed project. The Board would be required to adopt findings for each significant impact that show the project has been changed (including adoption of mitigation measures) to avoid or substantially reduce the magnitude of the impact. The Board must determine that adopted mitigation measures are feasible and fully enforceable through permit conditions, agreements, or other measures.

S.5 PROJECT ALTERNATIVES

An analysis of alternatives has been provided in this PEIR to provide decision makers with a reasonable range of possible alternatives to be considered. The discussion in this PEIR focuses on three alternatives: the Vector Nuisance Abatement Enforcement Program (VNAEP) Alternative, the VHRP Regional General Permit (RGP) Alternative, and the No Project Alternative. A brief summary of each project alternative is provided below, and a matrix displaying significant environmental effects of each alternative in comparison to the proposed project is provided in *Table S-2, Comparison of Project Alternatives Impacts to Proposed Project Impacts*.

S.5.1 Vector Nuisance Abatement Enforcement Program Alternative

Under this alternative, DEH would identify locations throughout San Diego County where a vector-related "public nuisance" exists within the meaning of Health and Safety Code section 2002(j), and would notify property owners of their obligation to eliminate such nuisances within

specified time lines. Notification of property owners would include information regarding the proper methods/procedures to follow and information regarding permits/approvals that the property owner might need to obtain. Activities anticipated to be conducted under the VNAEP Alternative include water flow alteration; and sediment, trash, and vegetation removal.

As indicated in *Table S-2*, the VNAEP Alternative would result in similar environmental impacts as the proposed project except for biological and cultural resources, which would result in less environmental impacts than the proposed project.

The VNAEP Alternative would meet three of the project objectives, but would not meet the County's project objective 3 (described in Section 1.1.3 of this PEIR), because it would not implement a selective process to distribute funds to projects that would reduce or eliminate mosquito breeding habitat through design, modification management, and maintenance activities (such as restoring or modifying physical features affecting water flow and retention, vegetation manipulations, and water management) within natural areas. This alternative assumes that individual parties would be responsible for all costs. As a result, this alternative would be less effective in addressing mosquito breeding problems and in maintaining a balance with other environmental objectives in accordance with the key concepts used to develop the VHRP (see Table 1-1). Although this alternative would reduce potential impacts on biological and cultural resources, the proposed project would not result in any significant environmental effects that could not otherwise be mitigated with feasible mitigation measures. Therefore, this alternative does not offer substantial advantages in terms of avoiding or substantially lessening significant environmental effects, and the proposed project was selected over this alternative.

S.5.2 VHRP Regional General Permit Alternative

This alternative is identical to the proposed project except that individual projects implemented under and funded by the VHRP would be limited to those areas/activities that meet the general conditions of the proposed RGP. DEH has consulted with the U.S. Army Corps of Engineers (ACOE), U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), State Water Resources Control Board (SWRCB), and Regional Water Quality Control Board (RWQCB); and is negotiating the issuance of an RGP from the ACOE to cover impacts on ACOE jurisdictional resources resulting from implementation of individual projects under the VHRP, as well as umbrella permits from the other agencies to cover impacts on resources under their jurisdiction. An RGP is a permit that is issued for activities that are similar in nature and cause only minimal adverse impacts. General permits always include terms and conditions for compliance.

Activities anticipated to be conducted by property owners as a result of the VHRP RGP Alternative include sediment removal, trash removal, minor grading, and vegetation removal (including minor removal of wetland/riparian vegetation).

As indicated in Table S-2 below, the VHRP RGP Alternative would result in similar environmental impacts as the proposed project except for biological and cultural resources, which would result in less environmental impacts than the proposed project.

If the County obtains an RGP for VHRP-eligible projects, those projects meeting the terms and conditions for use of the RGP would result in reduced impacts in comparison to those potentially occurring from non–RGP-eligible projects. It is anticipated that the RGP for VHRP-eligible projects would apply to projects that would: result in no more than 5,000 square feet of impacts on jurisdictional resources, not require construction/vegetation clearing during the bird-breeding season, and not result in direct impacts on listed species. While the final terms, conditions, and mitigation measures would be outlined in the permit(s), they would be consistent with the mitigation measures discussed in this PEIR, and significant impacts would be reduced to below a level of significance.

The VHRP RGP Alternative would meet project objectives 1–4 by implementing the VHRP by reducing the scale of projects to those that would result in minimal adverse environmental impacts. However, the reduction of the type and size of projects to those that would result in minimal adverse environmental impacts (that would be covered in the RGP) would reduce the overall program effectiveness in reducing or eliminating the presence of West Nile virus in San Diego County. Therefore, the proposed project was selected over this alternative.

S.5.3 No Project Alternative

Under the No Project Alternative, conditions throughout San Diego County would not change. There would be no enhancement to the existing VCP to further reduce mosquito breeding habitat in an effort to reduce the presence of the West Nile virus and other diseases transmitted by mosquitoes. The environmental setting would remain the same as discussed in the project description in Section 1.4 of this PEIR.

Impacts associated with the No Project Alternative would be less than those of the proposed project. The No Project Alternative would result in a business-as-usual situation and would not implement a new program to fund future projects that propose actions to further assist in the reduction of mosquitoes that transmit diseases such as the West Nile virus, which is a growing concern throughout San Diego County, with increasing cases of the virus in humans and animals every year. In addition, this alternative would not achieve any of the project objectives, and as a result the proposed project is preferred.

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Table S-1. Summary of Significant Effects

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
Biological Resources			
BI-1 Projects under the Vector Habitat Remediation Program have a potential to result in direct removal of special-status plant species if present within the work areas. This would be considered a *significant direct impact.*	MI-BI-1a To avoid permanent and temporary impacts on special-status plant species, a preconstruction survey to determine the presence/absence of special-status plant species shall be conducted for projects where suitable habitat exists and where proposed project activities would result in impacts on potentially suitable habitat. At least two surveys shall be conducted for each site: one during the spring and one during the summer, if suitable habitat occurs within the project vicinity such that project activities could have the potential to impact the suitable habitat. Project design components, including construction work, shall avoid to the extent practicable any habitat with the potential to support special-status plants. If special-status plant species are found, those individuals or populations shall be avoided, or mitigation measures (which could include transplantation, etc.) shall be implemented that would reduce impacts to below a level of significance. Impacts on state or federal listed species will require consultation under the Endangered Species Act. M-BI-1b A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place.	Less than Significant	Section 2.1
BI-2 Potential indirect impacts on special-status plant species could occur in the absence of best management practices and construction-related minimization measures to control dust, erosion, and runoff. This would be a *significant short-term indirect impact*.	M-BI-2a Best management practices to address erosion and excess sedimentation would be incorporated into the project plans. At minimum, the plans should show the locations of temporary fencing, drainage inlet protection, gravel bags, fiber rolls, temporary construction access paths, and any other procedures deemed appropriate by the County. M-BI-2b Topsoil shall be stockpiled in disturbed areas currently lacking native vegetation. Stockpile areas will be delineated on the project plans by a qualified biologist. M-BI-2c The changing of oil, refueling, and other actions that could result in a release of a hazardous substance shall be restricted to designated areas that are a minimum of 100 feet from documented special-status plant populations, sensitive habitats, or drainages. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling	Less than Significant	Section 2.1

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
	zones" shall be designated on construction maps. Designated fueling areas shall be demarcated in the field by berms, sandbags, or other artificial barriers designed to further prevent accidental spills. Accidental spills of hazardous substances shall be immediately contained, cleaned up, and properly disposed.		
BI-3 Indirect impacts on special-status plant species could occur due to unauthorized construction activities and human trampling. This would be a *significant short-term indirect impact*.	M-BI-3a Areas to be avoided that contain sensitive biological resources shall be flagged by a qualified biologist prior to the onset of project activities. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones. M-BI-3b Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. Construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing to ensure that construction activity remains within the defined limits evaluated and approved by County staff. A qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts. M-BI-3c Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application. M-BI-3d Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, all vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and shall be reviewed by a qualified biologist.	Less than Significant	Section 2.1

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
BI-4 The project has the potential to directly impact special-status wildlife species, including breeding birds and listed wildlife species, if present within the work areas. This would be considered a *significant direct impact.*	M-BI-4a Removal of vegetation, including but not limited to, trees, sub-shrubs, and shrubs, shall be conducted outside of the bird and raptor breeding season (January 15 to September 15). If vegetation removal is unavoidable during the bird and raptor breeding season, and listed species are not present, then pre-construction surveys shall be conducted within one week prior to work in each individual project area supporting suitable nesting bird habitat to document breeding activity of migratory birds within or immediately adjacent to the proposed work areas. If an active bird nest is found, the nest shall be flagged and mapped on the project plans along with an appropriate buffer, which shall be determined by the biologist based on the biology of the species. The buffer shall be delineated by temporary fencing and shall remain in effect as long as construction occurs or until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing. M-BI-4b Where habitat for state- and/or federally listed species is identified on or adjacent to the project work sites, vegetation clearing, grubbing, and sediment removal shall occur outside the breeding/mating seasons listed below: a. arroyo toad—March 15 to July 31 b. least Bell's vireo—March 15 to September 15 c. southwestern willow flycatcher—March 15 to September 15 d. coastal California gnatcatcher—February 15 to August 31 e. light-footed clapper rail—March 1 to August 31. M-BI-4c If potentially suitable habitat for state- and/or federally listed species is detected at any of the prescribed project sites, focused protocol surveys for each species with potential to occur shall be conducted. If state- and/or federally listed species are determined to occur within the project impact area, consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game under the Endangered Species Act shall be initiated and any resulting mitigation measures identified during consultation shall be implemented.	Less than Significant	Section 2.1
BI-5 Indirect impacts on special-status wildlife due to construction-related noise may occur as a result of the proposed project. This would be considered a *significant short-term*	M-BI-5 For construction activities adjacent to habitats occupied by listed avian species (e.g., California gnatcatcher, least Bell's vireo, and southwestern flycatcher) in which noise is produced in excess of 60 dB(A)Leq or ambient noise levels (if ambient levels are above 60), noise attenuation structures shall be placed prior to the beginning of the breeding season for these species to reduce noise levels at the nest site to 60dB(A)Leq (or ambient if ambient is over 60).	Less than Significant	Section 2.1

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
indirect impact.	During construction adjacent to these areas, noise monitoring shall occur during the breeding season for these species and daily monitoring reports shall be submitted to the U.S. Fish and Wildlife Service. In the event that construction activities create noise in excess of the thresholds described above, work shall cease until effective noise attenuation structures or devices are in place.		
BI-6 Potential impacts on special-status wildlife species could occur as a result of human trampling and unauthorized construction activities adjacent to approved construction limits. Such effects would be considered a *significant short-term indirect impact*.	M-BI-6a A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place. M-BI-6b Prior to the onset of project activities, a qualified biologist shall flag areas to be avoided that contain sensitive biological resources, including appropriate buffers. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones. M-BI-6c Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. All construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing, to ensure that construction activity remains within the defined limits evaluated and approved by County staff. A qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts. M-BI-6d Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application. M-BI-6e Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, all vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be	Less than Significant	Section 2.1

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
	delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and shall be reviewed by a qualified biologist.		
BI-7 Impacts on special-status vegetation communities, including riparian habitat, resulting from the direct removal of habitat, would be considered a *significant direct impact.*	M-BI-7a Prior to conducting work in any individual work area, a biological assessment shall be conducted to inventory existing flora and faunal resources; provide a thorough assessment of rare plants and wildlife and rare natural communities that may be present on site; and inventory rare, threatened, endangered, and otherwise sensitive species in the work area(s) and within the area of potential effect. M-BI-7b Permanent loss of riparian and wetlands habitat shall be offset with equal or better habitat function at ratios commensurate with project impacts, ranging from 1:1 to 3:1. Final mitigation ratios for specific habitat types shall be determined based on the quality and quantity of resources impacted or, for projects within the planning area of a finalized habitat conservation plan, in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that temporary impacts on riparian and wetlands habitat would be offset through the restoration of temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio. M-BI-7c Permanent loss of native upland habitat (sage scrub, chaparral, native grasslands, oak woodland, etc.) shall be offset with equal or better habitat function at ratios commensurate with project impacts, ranging from 1:1 to 3:1. Final mitigation ratios for specific habitat types will be determined based on the quality and quantity of resources impacted or, for projects within the planning area of a finalized habitat conservation plan, in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that all temporary impacts on native upland habitat would be offset through the restoration of all temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio. M-BI-7d Permanent loss of nonnative grassland habitat shall be offset at a minimum 0.5:1 ratio consisting of creation, enhancement, restoration, or use of credits within an approved mitigation	Less than Significant	Section 2.1

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
	bank. Permanent and temporary project impacts within the planning area of a finalized habitat conservation plan shall be offset in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that all temporary impacts on nonnative grassland habitat would be offset through the restoration of all temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio. M-BI-7e Restoration plans and revegetation construction documents needed to ensure the successful revegetation of impacted habitats shall be prepared by qualified personnel with experience in southern California ecosystems and native plant revegetation techniques. These plans shall include, at minimum, the following information: (a) the location of the mitigation site(s); (b) the plant species to be used, container sizes, and seeding rates; (c) the plant materials' sources and lead time; (d) a schematic depicting the mitigation areas; (e) a planting schedule; (f) a description of installation requirements, irrigation sources and methodology, erosion control, maintenance and monitoring requirements; (g) measures to properly control exotic vegetation on site; (h) site-specific success criteria; (i) a detailed monitoring program; (j) contingency measures should the success criteria not be met; (k) a summary of the annual reporting requirements; and (l) identification of the responsible party(ies) for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.		
BI-8 Indirect impacts on special-status vegetation communities, including riparian habitats, could occur in the absence of best management practices and construction-related minimization measures to control dust, erosion, and runoff. This would be a *significant short-term indirect impact*.	M-BI-8a Best management practices to address erosion and excess sedimentation shall be incorporated into the project plans. The plans shall at minimum show the locations of temporary fencing, drainage inlet protection, gravel bags, fiber rolls, temporary construction access paths, and any other procedures deemed appropriate by the County. M-BI-8b Topsoil shall be stockpiled in disturbed areas currently lacking native vegetation. Stockpile areas shall be delineated on the project plans by a qualified biologist. M-BI-8c The changing of oil, refueling, and other actions that could result in a release of a hazardous substance shall be restricted to designated areas that are a minimum of 100 feet from any documented special-status plant populations, sensitive habitats, or drainages. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling	Less than Significant	Section 2.1

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
	zones" shall be designated on construction maps. Designated fueling areas shall be demarcated in the field by berms, sandbags, or other artificial barriers designed to further prevent accidental spills. Accidental spills of hazardous substances shall be immediately contained, cleaned up, and properly disposed.		
BI-9 Potential impacts on sensitive vegetation communities, including riparian habitats, could occur due to human trampling and unauthorized construction activities adjacent to approved construction limits. Any such effects would be considered a *significant short-term indirect impact*.	M-BI-9a A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place. M-BI-9b Prior to the onset of project activities, a qualified biologist shall flag areas to be avoided that contain sensitive biological resources, including appropriate buffers. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones. M-BI-9c Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. Construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing to ensure that construction activity remains within the defined limits evaluated and approved of by County staff. A qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts. M-BI-9d Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application. M-BI-9e Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of	Less than Significant	Section 2.1

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
	the grant application and reviewed by a qualified biologist.		
BI-10 Federal jurisdictional waters of the United States, including wetlands, may be permanently and temporarily impacted by projects through activities such as direct removal and/or fill due to vegetation management and wetland and water quality treatment system design. This would be considered a *significant direct impact.*	M-BI-10a Prior to conducting work in any individual work area, a biological assessment shall be conducted to inventory existing flora and faunal resources; provide a thorough assessment of rare plants and wildlife and rare natural communities that may be present on site; and inventory rare, threatened, endangered, and otherwise sensitive species in the work area(s) and within the area of potential effect. M-BI-10b Permanent loss of riparian and wetlands habitat shall be offset with equal or better habitat function at ratios commensurate with project impacts, ranging from 1:1 to 3:1. Final mitigation ratios for specific habitat types shall be determined based on the quality and quantity of resources impacted or, for projects within the planning area of a finalized habitat conservation plan, in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that all temporary impacts on riparian habitat would be offset through the restoration of temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio. M-BI-10c Restoration plans and revegetation construction documents needed to ensure the successful revegetation of impacted habitats shall be prepared by qualified personnel with experience in southern California ecosystems and native plant revegetation techniques. These plans shall include, at minimum, the following information: (a) the location of the mitigation site(s); (b) the plant species to be used, container sizes, and seeding rates; (c) the plant materials' sources and lead time; (d) a schematic depicting the mitigation areas; (e) a planting schedule; (f) a description of installation requirements, irrigation sources and methodology, erosion control, maintenance and monitoring requirements; (g) measures to properly control exotic vegetation on site; (h) site-specific success criteria; (i) a detailed monitoring program; (j) contingency measures should the success criteria not be met; (k) a summary of the annual reporting requirements; and (l) identification of the responsible party(ies) for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.	Less than Significant	Section 2.1

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
	M-BI-10d Environmental permits from the regulating resource agencies shall be required prior to initiating project activities in state and federal jurisdictional waters of the United States, including wetlands. Such agencies may include the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Game, and California Coastal Commission.		
BI-11 In the absence of best management practices to control dust, erosion, and surface runoff, federal jurisdictional waters of the United States, including wetlands, could be indirectly impacted by the project. This would be considered a *significant short-term indirect impact*.	M-BI-11a Best Management Practices to address erosion and excess sedimentation shall be incorporated into the project plans. At minimum, the plans shall show the locations of temporary fencing, drainage inlet protection, gravel bags, fiber rolls, temporary construction access paths, and any other procedures deemed appropriate by the County. M-BI-11b Topsoil shall be stockpiled in disturbed areas currently lacking native vegetation. Stockpile areas shall be delineated on the project plans by a qualified biologist. M-BI-11c The changing of oil, refueling, and other actions that could result in a release of a hazardous substance shall be restricted to designated areas that are a minimum of 100 feet from documented special-status plant populations, sensitive habitats, or drainages. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" shall be designated on construction maps. Designated fueling areas shall be demarcated in the field by berms, sandbags, or other artificial barriers designed to further prevent accidental spills. Accidental spills of hazardous substances shall be immediately contained, cleaned up, and properly disposed.	Less than Significant	Section 2.1
BI-12 Impacts on federal jurisdictional waters of the United States, including wetlands, could occur due to human trampling and unauthorized construction activities adjacent to approved construction limits. Any such effects would be considered a *significant short-term indirect impact*.	M-BI-12a A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place. M-BI-12b Prior to the onset of project activities, a qualified biologist shall flag areas to be avoided that contain sensitive biological resources, including appropriate buffers. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and	Less than Significant	Section 2.1

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
	designated as "no construction" zones. M-BI-12c Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. All construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing to ensure that construction activity remains within the defined limits evaluated and approved by County staff. A qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts. M-BI-12d Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas will be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application. M-BI-12e Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, all vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and shall be reviewed by a qualified biologist.		
Cultural Resources			
CR-1 Ground disturbance associated with the implementation of Vector Habitat Remediation Program–eligible projects could destroy or disturb all or portions of an important archaeological site.	M-CR-1a Individual Vector Habitat Remediation Program–eligible projects that involve ground disturbance shall retain the services of a qualified archaeologist to conduct a survey and record search of the project site prior to project implementation to determine the potential for the project to encounter unknown archaeological resources. A cultural resources report shall be prepared to discuss potential impacts associated with the proposed project and identify mitigation measures to reduce all significant impacts to below a level of significance. M-CR-1b If the survey/record search (conducted per M-CR-1a) identifies significant archaeological resources within the impact area or suggests that archaeological resources may be encountered, all earthmoving activities shall be monitored by a qualified archaeologist. However, if no significant resources are identified, monitoring shall not be required.	Less than Significant	Section 2.2

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
CR-2 Ground disturbance associated with the implementation of Vector Habitat Remediation Program–eligible projects could disturb human remains.	M-CR-2 If human remains are discovered during the monitoring of earthmoving activities, the provisions of California Public Resources Code Section 5097 and Health and Safety Code Section 7050.5 shall be implemented. Initially, the remains shall be stabilized and protected and the County Coroner shall be contacted. If the remains are determined to be Native American in origin, the Native American Heritage Commission shall be notified, which shall identify the Most Likely Descendant. Consultation with the Most Likely Descendant regarding disposition of the remains shall be conducted by the lead agency under the California Environmental Quality Act for the individual project to be implemented under the Vector Habitat Remediation Program.	Less than Significant	Section 2.2
CR-3 Failure of individual Vector Habitat Remediation Program–eligible projects to comply with the Resource Protection Ordinance could damage significant cultural resources as defined by the Resource Protection Ordinance.	M-CR-3 All projects implemented under the Vector Habitat Remediation Program that are subject to the Resource Protection Ordinance shall be required to be in compliance with the provisions in the Resource Protection Ordinance related to the protection of significant cultural resources.	Less than Significant	Section 2.2
Hydrology and Water Quality			
HY-1 Implementation of the Vector Habitat Remediation Program could substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion, siltation, or hydromodification impacts on or off site.	M-HY-1 A drainage study shall be required for individual sites that will potentially affect drainage patterns (as determined during the required California Environmental Quality Act review of individual projects to be implemented under the Vector Habitat Remediation Program). The drainage study shall be performed according to standards in the County Drainage Design Manual and the Watershed Protection Ordinance. The drainage study shall identify and require mitigation measures to reduce all significant impacts to below a level of significance.	Less than Significant	Section 2.3

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
HY-2 Implementation of the Vector Habitat Remediation Program could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the flow rate or amount (volume) of surface runoff in a manner that would result in flooding on or off site.	M-HY-2 If the future individual Vector Habitat Remediation Program–eligible projects have the potential to increase the flow rate or alter the existing drainage pattern (as determined during the required California Environmental Quality Act review of individual projects to be implemented under the Vector Habitat Remediation Program), a hydrology/drainage study shall be required for these individual sites to determine the pre- and post-construction peak runoff flow rates, durations, and velocities exiting the project site as well as the capacity of the existing drainage facility and potential downstream impacts. The hydrology/drainage study shall identify and require mitigation measures to reduce all significant impacts to below a level of significance.	Less than Significant	Section 2.3
HY-3 Implementation of the Vector Habitat Remediation Program could create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	M-HY-3 If future Vector Habitat Remediation Program–eligible projects have the potential to increase pollutants of concern, a hydrology/drainage study, including a water quality analysis of potential pollutants of concern, shall be required. The hydrology/drainage and water quality study shall identify mitigation measures to reduce all significant impacts to below a level of significance.	Less than Significant	Section 2.3
HY-4 Implementation of the Vector Habitat Remediation Program could violate water quality standards or waste discharge requirements.	M-HY-4 Project sites that disturb more than 1 acre of land shall be required to prepare a Stormwater Pollution Prevention Plan per National Pollutant Discharge Elimination System under the Clean Water Act. These Stormwater Pollution Prevention Plans shall ensure that adequate best management practices are used for each of the projects to reduce water quality impacts to below a level of significance. Given current regulations, projects shall be constructed and managed in accordance with regional requirements, which typically require acquisition of discharge permits and the use of best management practices to limit erosion, control sedimentation, and reduce pollutants in runoff.	Less than Significant	Section 2.3

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
HY-5 Implementation of the Vector Habitat Remediation Program could contribute pollution in excess of that allowed by applicable state or local water quality objectives or cause or contribute to the degradation of beneficial uses.	M-HY-5 A hydrology and water quality study shall be required for individual Vector Habitat Remediation Program-eligible projects that could potentially contribute pollution in excess of applicable laws. If water quality pollutants are identified, a combination of construction, site design, source control, and treatment control best management practices shall be implemented to reduce all impacts on water quality to below a level of significance.	Less than Significant	Section 2.3
Noise			
N-1 If construction activities of Vector Habitat Remediation Program–eligible projects result in an average sound level of more than 75 dBA at the location of a sensitive receptor, then a significant short-term noise impact would occur.	M-N-1 Operation of Vector Habitat Remediation Program–eligible projects shall be required to conform to the regulations governing noise limits within the applicable jurisdiction of the project. Construction and operational activities implemented under Vector Habitat Remediation Program–eligible projects shall conform to the requirements of the applicable noise element and/or municipal code governing acceptable noise as well as ground-borne vibration levels and construction activity hours.	Less than Significant	Section 2.4
N-2 If sensitive wildlife habitat is located near Vector Habitat Remediation Program–eligible projects and construction activities for those projects generate noise of more than 60 dBA, then construction activities could result in significant short-term indirect impacts on sensitive species.	M-N-2 Vegetation clearing activities for Vector Habitat Remediation Program–eligible projects shall be conducted outside of the bird and raptor breeding season (January 15 to September 15) to avoid impacts on nesting birds and raptors. In addition, if a Vector Habitat Remediation Program–eligible project is proposed near habitat for sensitive avian species, construction activities shall be required to conform to the 60 dB hourly L_{eq} noise level limit (through measures such as noise walls, muffling of equipment, etc.) to minimize potential impacts on sensitive avian species.	Less than Significant	Section 2.4
N-3 If Vector Habitat Remediation Program–eligible projects use vibration-generating construction equipment, then significant short-term noise impacts on sensitive receptors could occur.	M-N-3 Operation of Vector Habitat Remediation Program–eligible projects shall be required to conform to the regulations governing noise limits within the applicable jurisdiction of the project. Construction and operational activities implemented under Vector Habitat Remediation Program–eligible projects shall conform to the requirements of the applicable noise element and/or municipal code governing acceptable noise as well as ground-borne vibration levels and construction activity hours.	Less than Significant	Section 2.4
N-4 If Vector Habitat Remediation Program–eligible projects use	M-N-4 Operation of Vector Habitat Remediation Program–eligible projects shall be required to conform to the regulations governing noise limits within the applicable jurisdiction of the project.	Less than Significant	Section 2.4

Table S-1 (Continued)

Significant and Unavoidable Impacts			
Description of Impact	Mitigation Measure*	Significance after Mitigation	Location in PEIR
vibration-generating construction equipment, then significant short-term noise impacts on special buildings could occur.	Construction and operational activities implemented under Vector Habitat Remediation Program–eligible projects shall conform to the requirements of the applicable noise element and/or municipal code governing acceptable noise as well as ground-borne vibration levels and construction activity hours.		

* The mitigation measures listed in this table will be implemented if their corresponding impact is identified for a particular project to be constructed under the Vector Habitat Remediation Program. If a specific impact is not identified for a particular project to be constructed under the Vector Habitat Remediation Program, implementation of the associated mitigation measure(s) will not be required.

Table S-2. Comparison of Project Alternatives Impacts to Proposed Project Impacts

Issue Area	No Project Alternative	VNAEP Alternative	VHRP RGP Alternative
Aesthetics and Visual Quality	Less	Similar	Similar
Agricultural Resources	Similar	Similar	Similar
Air Quality	Less	Similar	Similar
Biological Resources	Less	Less	Less
Cultural Resources	Less	Less	Less
Geology and Soils	Less	Similar	Similar
Hazards and Hazardous Materials	Less	Similar	Similar
Hydrology and Water Quality	Less	Similar	Similar
Land Use and Planning	Similar	Similar	Similar
Mineral Resources	Less	Similar	Similar
Noise	Less	Similar	Similar
Population and Housing	Similar	Similar	Similar
Public Services	Similar	Similar	Similar
Recreation	Similar	Similar	Similar
Transportation and Traffic	Less	Similar	Similar
Utilities	Less	Similar	Similar

Notes:
Greater = Alternative results in greater impacts than the proposed project.
Similar = Alternative results in impacts similar to those of the proposed project.
Less = Alternative results in less impacts than the proposed project.

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CHAPTER 1.0 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

1.1 Project Objectives

1.1.1 Background

The County of San Diego's (County's) Vector Control Program (VCP) is an existing public health program that was implemented to monitor and control mosquitoes and other disease-carrying insects and rodents in San Diego County. The VCP also includes regularly testing for diseases that are spread by mosquitoes, other insects, and rodents. The VCP has provided mosquito and vector control services for over 30 years, and is managed by the County Department of Environmental Health (DEH) and governed by the County Board of Supervisors (Board).

Until recently, the VCP was primarily funded by a fee charged to all property owners within San Diego County. This fee was established in 1989 and was decreased in the 1990s when reserves had accumulated. However, those reserves were subsequently depleted due to inflation and an increase in the costs of protecting people and animals/wildlife from the West Nile virus, a disease spread by mosquitoes. Additional funding resources were needed to restore basic VCP services, and to continue mosquito and West Nile virus prevention efforts at the necessary enhanced level of protection.

Also, during the 1990s, effective maintenance and restoration of mosquito breeding habitat (such as wetlands or other areas containing habitat for protected species) became more difficult to manage due to increased concerns regarding the protection of sensitive habitats and protected species. In addition, decreased water flows and increased vegetation in these areas made other mosquito-abatement techniques less effective.

In 2005, a ballot measure was presented to the public allowing property owners to decide whether the VCP should receive additional funding to support mosquito, vector, and disease control services. Property owners were advised that a portion of the money raised by this measure would be used for a vector habitat remediation program that would implement long-term solutions for controlling mosquito breeding habitat. This measure was approved by the public. The revenues from the measure now help to fund year-round mosquito control and enhanced disease prevention services, including year-round testing for, and response to, diseases that are carried by mosquitoes, other insects, and rodents. One of these diseases is the West Nile virus. When breeding sources cannot be removed due to issues such as lack of access or potential for impacts on sensitive resources, the VCP uses natural materials found to be environmentally safe and endorsed by the United States Environmental Protection Agency (EPA), the University of California, and the Centers for Disease Control and Prevention (CDC). For mosquito breeding habitat such as ponds and marshes, the VCP uses natural bacteria that

target the mosquito larvae before they hatch. However, current programs are not as effective as they need to be, because many vector breeding habitats need longer -term solutions that the VCP has not yet been able to implement (or been able to induce land owners to implement).

The planned Vector Habitat Remediation Program (VHRP) addressed in this Program Environmental Impact Report (PEIR) will be a primary VCP tool to address these situations. Under the proposed VHRP, accumulated and future funds from the assessment approved by the 2005 ballot measure would be used to implement mosquito breeding habitat remediation projects throughout San Diego County, including within both developed and natural areas. Within wetlands, a primary goal of the VHRP is to eliminate or reduce breeding habitat in a manner that balances the water quality, biologic, aesthetic, and hydrologic values of wetlands with the need to protect human populations and animals from mosquito-borne disease. In many settings, management and design measures that bring the ecology of the wetland back into balance will also help to eliminate or reduce mosquito breeding habitat.

Under this VHRP, DEH will provide funding to government and private entities to implement vegetation removal, wetland enhancement, and other related projects that will reduce or remove mosquito breeding habitat. Projects implemented under the proposed VHRP will be funded or partially funded by DEH through either (1) direct agreements with landowners as needs are identified for smaller projects or (2) a competitive grant program with an annual or more frequent award cycle for larger projects. Projects that provide the most significant reductions in risks from mosquito-borne disease per dollar spent will be favored in making funding decisions for competitive proposals. All projects will be required to meet the objectives discussed above and described in more detail in Section 1.1.3.

1.1.2 Need for the Project

West Nile virus, a mosquito-borne disease, has become a growing concern in San Diego County. The disease was first introduced to the United States in New York City during 1999 and rapidly spread throughout the country. According to the California Department of Public Health, a total of 2,765 cases of West Nile virus have been documented within the state between 2003 and 2008. During that same 5-year time period, 76 human deaths occurred statewide due to the disease. Within San Diego County, 2 human cases of West Nile virus occurred in 2004; that number rose to 16 in 2007, and to 34 from January 1 to December 19, 2008.

Mosquito-borne diseases, such as West Nile virus, pose a growing public health threat as mosquitoes establish and spread into new locations. Policy officials are tasked with controlling mosquito populations to reduce disease transmission. The County DEH's VCP has historically used chemical insecticides, herbicides, and larvicides as the primary means of reducing mosquito populations and controlling vegetation growth.

In response to environmental concerns, the VCP suspended routinely using herbicides several years ago. However, without vegetation control measures, plant growth can impede water flow and create ideal conditions for mosquito breeding. Also, although the VCP may use pesticides, if necessary, to reduce adult mosquito populations to suppress potential outbreaks or during public health emergencies, they are currently not routinely used.

DEH has developed the proposed VHRP to provide long-term solutions at mosquito breeding sites. The VHRP is expected to make VCP efforts as a whole both more effective and more environmentally friendly. The VHRP provides a strong focus on designing, modifying, and maintaining wetlands and stormwater facilities to function in a way that would reduce or eliminate mosquito breeding habitat while balancing the water quality, biologic, aesthetic, and hydrologic values of wetlands. These changes will make the use of environmentally benign short-term measures, such as natural larvicides, more effective.

1.1.3 Statement of Objectives

California Environmental Quality Act (CEQA) Guidelines (Section 15124 (b)) require that project objectives be set forth in an environmental impact report (EIR) in order to help define alternatives to the proposed project that meet most of the basic project objectives (14 CCR 15000 et seq.).

The project objectives, and a rationale for each, are detailed as follows.

Project Objective No. 1: To protect public health and safety by reducing or eliminating the presence of mosquitoes that transmit vector-borne diseases such as West Nile virus.

Rationale: As mentioned in Section 1.1.2, the West Nile virus is a growing public health threat in San Diego County. Illnesses caused by mosquito-borne pathogens that were comparatively rare throughout the recent past are reemerging as changing land use patterns and modern human activities facilitate the interaction between disease-causing agents and susceptible human populations.

Project Objective No. 2: To eliminate or reduce mosquito breeding habitat (such as areas of shallow standing water) in a manner that balances the water quality, biologic, aesthetic, and hydrologic values of wetlands with the need to protect human populations and animals from mosquito-borne diseases.

Rationale: The maintenance of a healthy ecosystem by preserving the biological resources, water quality, hydrologic, and aesthetic values, should be accorded as much importance as

reducing and eliminating mosquito breeding habitat, so long as this does not prevent actions that are both necessary to protect public health and consistent with applicable law.

Project Objective No. 3: To implement a selective process that distributes funds to projects within both natural and developed areas that would reduce or eliminate mosquito breeding habitat using methods that provide long-term solutions (e.g., through proper design of facilities, modification of physical features affecting water flow and retention, and vegetation removal and maintenance).

Rationale: The public approved a ballot measure and funding for the protection against the West Nile virus, including creation of a VHRP to implement long-term solutions for controlling mosquito breeding habitat. Intergovernmental cooperation and cooperation with land owners and other interested parties is necessary for any such program to be effective. It is important to implement a process for the distributing funds that makes the best use of the funds and also provides the most cost-effective protection against mosquito-borne disease. The VHRP must include natural, modified, and man-made environments because conditions conducive to mosquito breeding can be created in a variety of settings, such as when flood control channels are poorly designed or maintained, when stormwater detention or infiltration facilities do not work properly, and when vegetated areas are not maintained.

Project Objective No. 4: To implement a directed process to allow for the implementation of an urgent public health mosquito-abatement project that would not require additional CEQA review beyond the PEIR.

Rationale: The benefits to public health will be significantly enhanced if the proposed VHRP allows for a quick mosquito-abatement process for projects that would result in limited to no impacts on sensitive environmental resources. DEH staff has detailed knowledge of sites and situations wherein landowners would readily cooperate in abating mosquito habitats but they are unable to do so due to funding constraints.

1.2 Project Description

The VCP has initiated the development of a VHRP to further reduce and/or eliminate mosquito breeding habitat in established wetlands, flood control facilities, effluent treatment ponds, and stormwater management facilities. A goal of the VHRP is to fund projects that eliminate or reduce mosquito breeding habitat in a manner that balances the water quality, biological, aesthetic, and hydrologic values of wetlands with the need to protect human populations and animals from mosquito-borne diseases, including the West Nile virus.

1.2.1 Project's Component Parts

This section identifies the basic concepts and guidelines for wetland design and management that can be implemented to reduce mosquito breeding habitat.

1.2.1.1 *Key Concepts that Reduce Mosquito Production*

There are three basic concepts that the project will use to reduce mosquito breeding habitat: wetland and water quality treatment design, water management, and vegetation manipulation. Wetland and water quality treatment design concepts would involve making changes to the physical characteristics of aquatic systems. Water management would involve design concepts that would limit water retention time to less than 72 hours, reduce resident time for shallow water, and increase water agitation and wave action. Vegetation manipulation would generally involve the removal of dense vegetation such that only narrow strips remain along wetland margins. Specific activities anticipated to be conducted under the VHRP include trash and debris removal, vegetation removal (by hand or machinery), sediment (rocks, sand, etc.) removal, flow regime enhancement (to change/manage water levels, wave action, etc.), and retrofitting stormwater facilities to manage mosquitoes (e.g.; install spinning wheels to promote wave action, cap open water structures, etc.).

The guidelines for each of these key concepts are provided in *Table 1-1, Key Concepts that Reduce Mosquito Breeding Habitat. Table 1-1* also provides a list of possible mosquito breeding habitat control measures, which are incorporated into the project description by reference. Each of the individual VHRP-eligible projects may not incorporate all methods listed in *Table 1-1*; however, this list provides a comprehensive itemization of possible activities VHRP-eligible projects could use to achieve the project objectives (Section 1.1.3).

1.2.1.2 *Compliance with Regulations and Permitting*

Projects funded under the VHRP will be carried out in a manner that complies with land use regulations and applicable local, state, and federal wetland and endangered species regulations, and that minimizes adverse effects on protected species and habitats. Projects will be screened on the basis of whether they would: (1) comply with environmental and land use regulations; (2) result in a net loss of wetland functions and values; (3) result in significant impacts on sensitive habitat; and (4) establish optimal performance to reduce mosquito breeding habitat. VHRP applicants will be responsible for obtaining the necessary permits applicable to their own project(s). When it is disclosed that individual projects will result in new significant impacts or a substantial increase in the severity of previously identified significant impacts, additional mitigation measures will be required beyond those described in this PEIR.

1.2.1.3 *Process for Reviewing Proposed Projects*

The County will accept project proposals from property owners and/or designated land managers within San Diego County. The applicant must own the land or be officially designated to manage the land by the land owner by contract or other written form of legal documentation. Representatives of the land owner and land manager must be identified on the application form and be authorized in writing to enter into a contract agreement with the County.

An application process will be used to review proposed projects in two phases. The first phase will involve submission of application forms along with conceptual proposals. The conceptual proposals should include the project location and a general description of the proposed work. The County will review these conceptual proposals for eligibility and select the most qualified applicants to enter into the second phase of the process. Concept proposals will initially be reviewed by an Advisory Panel against basic eligibility requirements, and eligible applicants will be invited to make a concept presentation. The Advisory Panel will consist of County staff and outside experts. Following the concept presentation, the Advisory Panel will evaluate projects using the following criteria: known breeding location/site where aerial application of herbicide has historically occurred, mosquito abundance and type/threat permanence and recurrence, proximity to urbanized area and sensitive receptors, and compliance with wetland design concepts for vector control.

The second phase of the application process will involve submission of the application form along with a detailed project proposal and scope of work identifying project goals, proposed tasks, and funding requested for each task. Detailed proposals should include a description of the proposed mosquito control activity, a regulatory permitting work plan, plan drawings and specifications, and a construction work plan schedule. Each proposal will be scored on the following evaluation criteria: experience in related habitat management, matching funds/partnering, lack of habitat sensitivity, regulatory permitting feasibility and cost, improvement of larvicide treatment effectiveness, contribution to conservation, and feasibility of the maintenance plan.

Projects will be selected based on the evaluation results, financial requirements, project feasibility, and the best use of public funds. Selected applicants will be invited to enter into a contract with the County for grant funding. Applicants who receive grant funding will be required to submit quarterly progress reports and a final summary report detailing project actions and assessing the project's effects on mosquito reproduction.

1.2.1.4 *Methods for Distributing Funds*

DEH is expecting to fund projects proposed by a variety of proponents that will address various vector control needs. The proposed VHRP will facilitate both directed and competitive funding processes. Competitive funds will generally be directed to comprehensive habitat modification/restoration projects of varying scales and complexity that will be evaluated and awarded using a competitive bid process. Directed funds will generally be granted to relatively small discretionary projects focused on activities identified by DEH staff.

Competitive Projects

Competitive projects will generally focus on comprehensive solutions for source reduction of mosquito breeding habitat through physical modification in mosquito breeding problem areas. These projects may involve a variety of activities, such as modifying tidal flow in lagoons, management of stream discharge, manipulation of stormwater retention time, vegetation removal, and wetland restoration/redesign. Within the competitive projects category, projects will be funded under three subcategories: (1) turnkey projects, (2) study projects, and (3) assistance projects.

Turnkey Projects

Turnkey projects will be ready to go as soon as they are funded. For a project to qualify as a turnkey project, the vector habitat remediation activity must be fully planned, environmental reviews in accordance with CEQA must be completed, and permits must be obtained prior to submitting the application. Turnkey projects will vary in scope and complexity.

Study Projects

Study projects will include planning and permitting activities necessary prior to project implementation. These projects will be aimed at developing specific vector habitat remediation plans, consulting with pertinent regulatory agencies, and obtaining permits required prior to project implementation. Activities may include site planning, engineering design work, preparation of environmental documents, and permit application. The goal of the study projects is to complete all background planning and permitting work so that they can be considered turnkey projects in a subsequent funding cycle.

Assistance Projects

Projects that request County involvement for assistance with permitting, mediation in discussion with regulatory agencies, developing project plans, and other related types of activities will be identified as assistance projects. Typically, this type of project will occur when an entity needs

the County to function as the lead agency for CEQA review. For assistance projects, a portion of the allocated funding would be used to cover the costs of the County's role.

Directed Projects

Directed projects will generally focus on smaller needs identified by DEH staff during surveillance or through customer requests. These projects will focus on immediate actions, such as clean-up of detention basins and maintenance of storm drains and ditches. Directed projects will be identified and funded on an ongoing basis throughout the year. Once a potential project has been identified, the property owner or manager will be solicited to submit a letter of interest. This letter will then be reviewed and a final decision made by the DEH director (with input from the Advisory Panel) regarding funding of the project.

1.2.2 Technical, Economic, and Environmental Characteristics

1.2.2.1 *Technical Considerations*

The VCP as a whole has five technical aspects: public education, surveillance, mosquito control, response, and remediation,. each of which is crucial to the VHRP's success. The VHRP will fund mosquito control, response, and remediation actions throughout San Diego County and will give priority to projects that are located within the vicinity of urban areas in order to reduce the threat of the West Nile virus on highly populated areas. The VHRP will fund future projects that implement wetland and water quality treatment system design, water management, and vegetation manipulation concepts that reduce mosquito production. The goal of the VHRP is to fund projects that eliminate or reduce mosquito breeding habitat in a manner that protects human populations and animals from mosquito-borne diseases and balances the water quality, biological, aesthetic, and hydrologic values of wetlands.

1.2.2.2 *Economic Considerations*

As discussed in Section 1.1.1, a ballot measure was presented to the public in 2005 to allow property owners to decide whether the VCP should receive additional funding to support mosquito, vector, and disease control services. Property owners were advised that a portion of the money raised by this measure would be used for a vector habitat remediation program to implement long-term solutions for mosquito breeding sites. This measure was approved by the public, and its revenues now help fund a year-round program of mosquito control and enhanced disease prevention services, including year-round testing for and responding to diseases that are carried by mosquitoes, other insects, and rodents. Under the VHRP, accumulated and future funds from the assessment approved by the 2005 ballot measure would be used to implement mosquito breeding habitat remediation projects throughout San Diego County. Under this VHRP, DEH will provide funding to government and private entities to implement vegetation

removal, wetland enhancement, and other such projects that would remove or eliminate mosquito breeding habitat.

1.2.2.3 *Environmental Considerations*

A goal of the VHRP is to fund projects that eliminate or reduce mosquito breeding habitat (such as areas of shallow standing water) in a manner that protects human populations and animals from mosquito-borne diseases while taking full consideration of the water quality, biologic, aesthetic, and hydrologic values of wetlands. The VHRP will bring the ecology of wetlands back into balance by funding projects that implement wetland and water quality treatment design concepts, water management concepts, and vegetation manipulation concepts that are aimed at eliminating or reducing mosquito breeding habitat in areas known to sustain mosquito populations. The VHRP focuses on locating and removing stagnant water and weedy/overgrown areas that support mosquito breeding, instead of applying larvicides to reduce the numbers of adult mosquitoes. For areas where breeding sources cannot be removed, the VHRP supports the use of natural materials to eliminate mosquito larvae. This approach has been found to be environmentally safe and is endorsed by the EPA, the University of California, and the CDC.

1.3 Project Location

The project is located in southwestern California, within San Diego County (see *Figure 1-1*, *Regional Map*; *Figure 1-2*, *Vicinity Map;* and *Figure 1-3; Topographic Map*). San Diego County is bounded by the Counties of Orange and Riverside to the north, the County of Imperial to the east, the United States/Mexico international border to the south, and the Pacific Ocean to the west (see *Figure 1-2*). The VHRP would review and potentially provide funding to projects located anywhere within San Diego County (excluding military and tribal lands) that demonstrate the reduction or elimination of mosquito breeding grounds in established wetlands, flood control facilities, effluent treatment ponds, and stormwater treatment facilities. All of the hydrologic units located in San Diego County have mosquito breeding habitat; however, several are predominantly comprised of military or tribal lands that are not covered under the VHRP. The specific locations of the future actions that may occur under the VHRP are unknown at this time.

1.4 Environmental Setting

In accordance with CEQA Guidelines (Section 15125), the general environmental setting for the project area is provided in this section. Mosquito reproduction is largely dependent on areas where still, shallow water persists for more than a few days. Areas within San Diego County consisting of these types of characteristics (i.e., still, shallow water, and/or stagnant shallow pools) would provide the setting for future projects that are implemented under the program.

San Diego County supports a wide range of climates, land uses, and habitat types. The San Diego Air Pollution Control District (SDAPCD) identifies five distinct climate zones as occurring within San Diego County: Maritime, Coastal, Transitional, Interior, and Desert. These climatic zones run nearly parallel to the coast, with each having its own specific characteristics.

- The Maritime zone consists of the area from the coastline to 5 miles east. This climate zone is dominated by the influence of the Pacific Ocean. The humidity is high and temperatures are mild. Low clouds, fog, and dampness are common.
- The Coastal zone encompasses the area approximately 5 miles from the coast to 15 miles inland. The ocean's influence is diminished but is still significant. The prevailing climate is semi-arid to arid. The climate in this region experiences frequent summer morning fog, clouds, and moderate humidity.
- The Transitional zone is located approximately 20 to 25 miles inland from the coast. The conditions can include brief Coastal-zone climate conditions, but normally consist of a warm, dry climate. Daytime humidity is low. Summer temperatures may reach 100 degrees Fahrenheit (°F), while winter days average approximately 70°F with frosty mornings.
- The Interior zone is located approximately 25 to 60 miles inland. This zone consists of topographical terrain that rises from 2,000 to 6,500 feet, produces dramatic contrasts in climate ranging from the 70s to the 90s.
- The Desert zone is located approximately 60 miles inland and extends to the eastern border of the state. Temperatures in the desert can reach 80°F in the winter and 120°F in the summer. (County of San Diego 2008)

Land uses within San Diego County vary between the urban areas along the coast and the more rural areas in the eastern regions. Urban uses tend to consist of large-scale residential and commercial uses, as well as small-scale agricultural and industrial uses. Other land uses that occur throughout San Diego County are environmentally constrained uses, such as floodplains, lagoons, lands that contain mineral resources, agricultural preserves, and areas containing rare and endangered plant and animal species, as well as national forest and state park lands.

San Diego County also supports a wide range of habitat types including vegetated wetlands, oak woodlands, riparian scrub, wet meadows, freshwater marsh, tidal marshes, sloughs, lakes, ponds, sage scrub, chaparral, grassland habitats, and a variety of other upland and wetland habitats. Natural areas within potential future VHRP project areas may include marshes, lakes, ponds, streams, sloughs, and seasonal wetlands. Artificially created areas within future project areas may include stormwater detention basins, flood control channels, roadside ditches, and liquid waste detention ponds.

1.5 Intended Uses of the Program Environmental Impact Report

This PEIR has been prepared in accordance with the requirements of the County Environmental Format and General Content Requirements, and the statutes and guidelines of CEQA (California Public Resources Code (PRC), Section 21000 et seq. and the California Code of Regulations (CCR), Title 14, Section 15000 et seq.). This document is a PEIR, as it examines the environmental impacts of a series of projects or actions that can be considered as one large project of related actions.

The CEQA Guidelines (Section 15168) define a PEIR as follows:

> A Program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) geographically; (2) as logical parts in the chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects, which can be mitigated in similar ways (14 CCR 15000 et seq.).

The VHRP qualifies for a PEIR because it is a series of logically interrelated and geographically connected actions that have similar environmental effects for which mitigation requirements will be generally the same. All future projects implemented under the VHRP would occur within the geographic area of San Diego County. The actions proposed by future projects will be consistent with the guidelines outlined in the VHRP's key concepts related to wetland and water quality treatment design, water management, and vegetation manipulation. All projects will be required to incorporate avoidance and minimization measures as discussed in later chapters of this PEIR. Future proposed actions will result in similar types of impacts on areas such as wetlands, flood control facilities, effluent treatment ponds, and stormwater treatment facilities; and associated mitigation measures would also be similar.

Additional CEQA review for the facilities proposed in this VHRP may be tiered to this PEIR. According to CEQA Guidelines (Section 15168(c)), the review process for projects identified in the program should proceed along the following sequence:

> Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared. (1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration. (2) If the lead agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measure would be required, the agency can approve the activity as being within the scope of the project covered by

> the program EIR, and no new environmental document would be required. (3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program. (4) Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR (14 CCR 15000 et seq.).

CEQA Guidelines (Section 15162(d)) describe the CEQA review process for subsequent implementation projects as follows:

> A program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can: 1) Provide the basis in an Initial Study for determining whether the later activity may have any significant effects. 2) Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole. 3) Focus an EIR on a subsequent project to permit discussion solely of new effects, which had not been previously considered (14 CCR 15000 et seq.).

Some specific projects that come forth under this program may be exempt from CEQA under a statutory or categorical exemption. All other specific projects would undergo additional environmental review, based on the requirements of Sections 15162–15164 of the CEQA Guidelines. Additional environmental review can include an Initial Study, Negative Declaration, Mitigated Negative Declaration, an EIR, or an addendum to this PEIR.

This PEIR focuses primarily on the changes in the environment that would result from implementation of the VHRP-eligible projects that would reduce mosquito production, and examines all phases of the project including planning, construction, and operation. This PEIR is an informational document, which will inform public agency decision makers and the public of the significant environmental effects of the proposed program, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the program. The project proponent and lead agency is the County of San Diego DEH.

The significance thresholds used in the analysis presented in this PEIR follow the County's Guidelines for Determining Significance, which present a range of quantitative, qualitative, and performance levels for particular environmental effects. The Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and were developed using the best available information and with input from experts and the public. In addition, the analysis presented in this PEIR relies on the following assumptions:

- All VHRP-eligible projects will comply with all applicable state, federal, and local laws, policies, ordinances, etc.
- All VHRP-eligible projects will comply with the key concepts presented in *Table 1-1*.
- All VHRP-eligible projects will comply with the design features and mitigation measures referenced in this document and listed in *Chapter 7*.

As noted in *Chapters 2 and 3*, site-specific surveys/analyses were not conducted as part of this PEIR because the future locations of VHRP-eligible projects are unknown at this time. However, individual projects implemented under the VHRP will be required to perform some additional CEQA analysis to determine whether they would result in any additional significant impacts beyond those addressed in this PEIR. If additional impacts (or a significant increase in an identified impact) are identified, the individual project applicant(s) would be required to fully analyze and mitigate those impacts in accordance with CEQA.

1.5.1 Matrix of Project Approvals/Permits

A list of some of the potential future discretionary actions/permits that will be required for some of the specific projects funded by the VHRP is included in *Table 1-2, Matrix of Programmatic Approvals/Permits.* Permits may include a Section 401 Water Quality Certification, a Section 404 Dredge and Fill Permit, a 1602 Streambed Alteration Agreement, and the processing of a Section 7 Consultation to address listed species issues. Applicants for individual projects to be implemented under the VHRP will be responsible for obtaining all the required permits/approvals prior to project approval and/or implementation, including any permits/approvals required by jurisdictions other than the County (e.g., City of San Diego, City of Chula Vista, etc.). However, the County is in the process of coordinating with the U.S. Army Corps of Engineers (ACOE), the California Department of Fish and Game (CDFG), the Regional Water Quality Control Board (RWQCB)/State Water Resources Control Board (SWRCB), and the U.S. Fish and Wildlife Service (USFWS) to obtain umbrella permits from these agencies. If obtained, these “umbrella” permits would be used as a tool to help implement projects that meet the specific impact limitations identified within the umbrella permits. The goal of the umbrella permits is to facilitate implementation of future vector control projects with minimal impacts on jurisdictional waters and biological resources.

1.5.2 Related Environmental Review and Consultation Requirements

Pursuant to CEQA Guidelines (Section 15365), the County prepared a Notice of Preparation (NOP) for this PEIR. The NOP was publicly circulated for 30 days beginning on January 23, 2009. The County held a scoping meeting on February 12, 2009, to provide the responsible agencies with information on the CEQA process and to give further opportunities to identify

environmental issues and alternatives for consideration in the PEIR. Public comments received during the NOP scoping process are provided in *Appendix A.*

1.6 Project Inconsistencies with Applicable Regional and General Plans

Planning documents reviewed for the proposed project include the County General Plan and ordinances. Other planning documents reviewed for the proposed project included the Regional Air Quality Strategy (RAQS) for the San Diego Air Pollution Control District (SDAPCD); the California Water Quality Control Board (Region 9, San Diego) Basin Plan; and established multiple species conservation plans (MSCPs) including the City of Chula Vista Subarea Plan, City of Poway Subarea Plan, City of San Diego Subarea Plan, City of Santee Subarea Plan, County of San Diego MSCP, and Draft North County MSCP; the North County Multiple Habitat Conservation Plan (MHCP); and the County Watershed Protection Ordinance. No inconsistencies were found. The following draft plans will also be applicable to future VHRP-eligible projects when approved: City of Coronado MSCP Subarea Plan, City of Del Mar MSCP Subarea Plan, City of El Cajon MSCP Subarea Plan, City of La Mesa MSCP Subarea Plan, City of Carlsbad MHCP Subarea Plan, City of Encinitas MHCP Subarea Plan, City of Escondido MHCP Subarea Plan, City of Oceanside MHCP Subarea Plan, City of San Marcos MHCP Subarea Plan, City of Solana Beach MHCP Subarea Plan, and City of Vista MHCP Subarea Plan.

1.7 List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area

CEQA Guidelines Section 15355 defines cumulative effects as two or more individual effects, which when considered together are considerable or which compound or increase other environmental impacts. The CEQA Guidelines further state that the individual effects may be changes resulting from a single project or a number of separate projects; or the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects.

There are a variety of discretionary projects in the County, which may have impacts on the environmental subject areas described in this PEIR, in conjunction with VHRP-eligible projects. However, the County and other governmental jurisdictions are governed by CEQA, and are required to confirm that all discretionary projects comply with CEQA, as well as all internal policies, guidelines, ordinances, etc.. Further, the County and other governmental jurisdictions have passed many regulatory measures to guide development and other construction/vegetation clearing activities. These regulations govern the preservation of wetlands, water bodies, biological resources, cultural resources, and other important environmental resources throughout the County.

Within the County Unincorporated Area, the Resource Protection Ordinance (RPO) protects County resource areas. All development and discretionary permit activity is required to comply with the RPO. Compliance with this regulatory structure ensures that discretionary projects, in conjunction with the VHRP-eligible projects, do not generate cumulatively significant impacts on important environmental and social/cultural resources. However, in cases where a discretionary project impacts an environmental resource, mitigation is required in accordance with CEQA. In the instance of biological resources, that mitigation is in ratios (3:1, 1:1, ½:1, etc.) that require the preservation of similar resources. Therefore, based on the need for discretionary projects to comply with environmental regulations and/or mitigate for project impacts and the assumptions for all VHRP-eligible projects listed above in Section 1.5 (such as the requirement to comply with all design features and mitigation measures outlined in this PEIR), cumulative impacts generated by discretionary projects, plus the VHRP-eligible projects, are determined to be less than significant.

The cumulative impact analysis associated with each environmental issue area is further explained in *Chapters 2 and 3*.

1.8 Growth-Inducing Impacts

CEQA requires a discussion of the ways in which a proposed project could induce growth. Growth-inducing impacts are those that foster economic or population growth, or the construction of new development, either directly or indirectly in the surrounding environment. In addition, the potential for characteristics of the project to encourage or facilitate additional growth that could significantly affect the environment, either individually or cumulatively, must be considered.

Implementation of the proposed project would have no growth-inducing effects, as discussed in the following sections.

1.8.1 Would the Project Foster Economic or Population Growth, or the Construction of Additional Housing?

The proposed project consists of implementing a program that would provide funding to projects that would eliminate or reduce mosquito breeding habitat while maintaining the water quality, biological resources, aesthetics, and hydrologic values of wetlands. Implementation of the VHRP is proposed to protect human populations and animals from mosquito-borne diseases, such as the West Nile virus. No staffing increases are anticipated to result from the implementation of the VHRP or the future projects that are approved for funding under this program. Therefore, the VHRP would not foster economic or population growth, or the construction of additional housing.

1.8.2 Would the Project Remove Obstacles to Population Growth?

Obstacles to population growth are generally associated with lack of new employment opportunities and vital services, such as roads, water, sewer, and electric lines. As discussed in Section 1.8.1, the project would not provide new employment. The project does not include the extension of any road, water, sewer, or electrical services and, therefore, would not induce any growth related to the extension of such services.

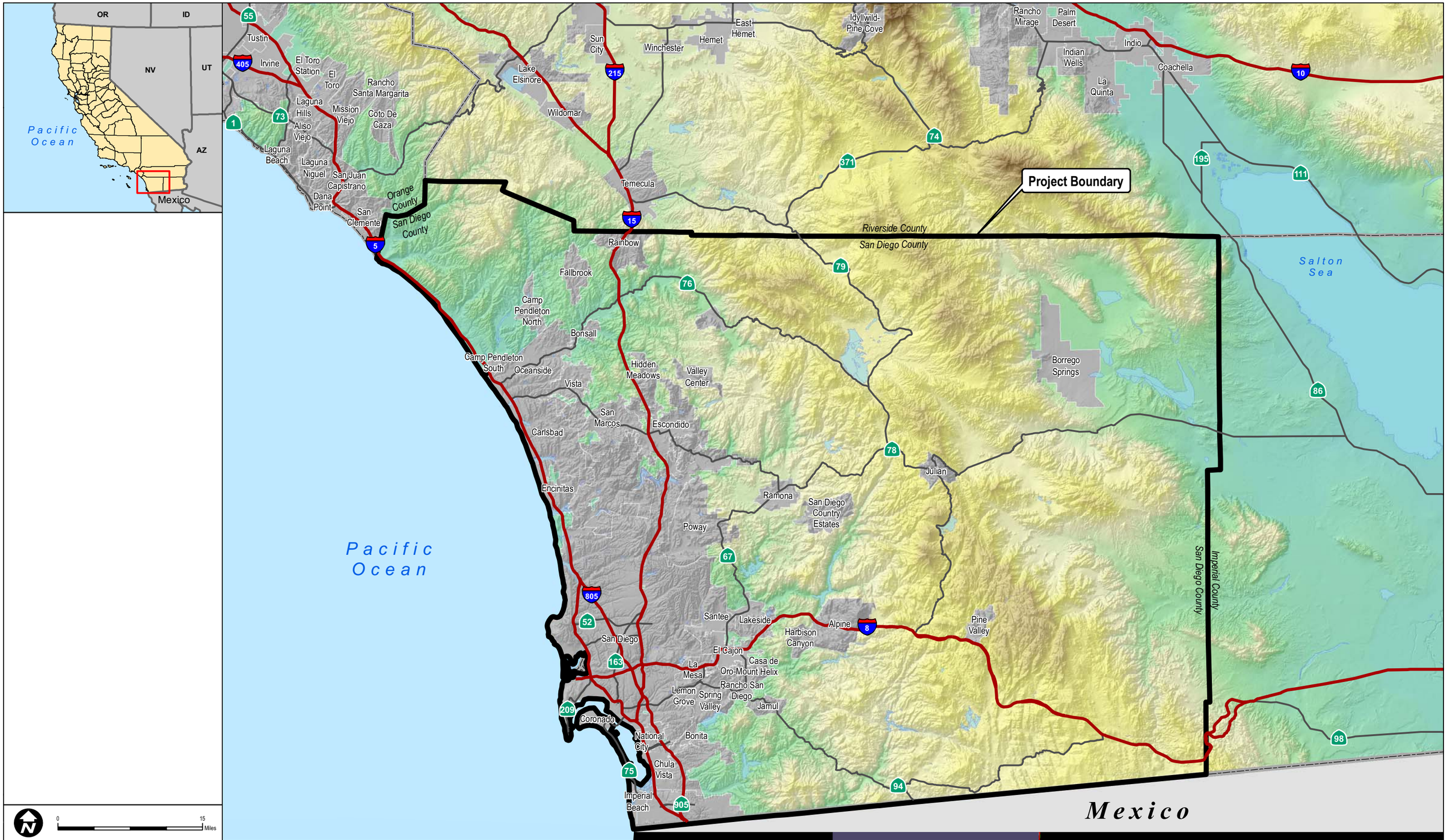
Table 1-1. Key Concepts that Reduce Mosquito Breeding Habitat

Concepts	Guidelines
Wetland and Water Quality Treatment Design	
General Concepts	Incorporate steep edges to minimize vegetation along wetland margins
	Maximize deep, open water areas to provide predator habitat, water circulation, and wave action
	Ensure surface connection and multiple flow paths among wetland cells and pools
	Minimize still, isolated, shallow areas
	Facilitate access for surveillance, maintenance, and mosquito-control activities
Created Wetlands and Effluent Treatment Ponds	Design to achieve a hydrologic regime unfavorable for mosquito production (e.g., avoid isolated pools or repeated drying/inundation cycles during periods of peak mosquito activity; incorporate water conveyance to facilitate relatively rapid changes in water level)
	Include permanent, open water pools with a depth of 1.5 meters or more
	Ensure connections (multiple flow paths) between wetland cells and pools
Stormwater Treatment Facilities	Design to limit water retention time to less than 72 hours
	Where feasible, cap open water structures that hold water longer than 72 hours
	Include trash racks, debris screens, or similar components to prevent mosquito access
	Avoid use of loose riprap or other materials that can create standing water
	Incorporate ongoing maintenance
Water Management	
General Concepts	Water delivery systems, drainage systems, levees, and other water control structures should be designed and maintained to minimize mosquito production (e.g., limiting water retention time to less than 72 hours, enhancing populations of naturally occurring predators of mosquitoes)
	Where feasible, limit the presence of standing, shallow water (less than 30 centimeters depth) to less than 72 hours
	Provide circulation and wave action
Created Wetlands and Effluent Treatment Ponds	Adequately size and maintain water control structures and pumps
	Use sprayers, spinning wheels, or other systems to promote agitation and wave action
Stormwater Treatment Facilities	Ensure water retention time is less than 72 hours
	Ensure active maintenance to avoid clogging of drains, pipes, and outfalls
Vegetation Manipulation	
General Concepts	When possible, limit vegetation to narrow strips (less than 5 meters wide)
	Remove dense emergent vegetation that limits wave action and predator access
	Provide access for mosquito surveillance and control activities
Created Wetlands and Effluent Treatment Ponds	Remove vegetation as part of ongoing maintenance
Stormwater Treatment Facilities	Remove vegetation as part of ongoing maintenance

Table 1-2. Matrix of Programmatic Approvals/Permits

Permit Type/Action	Agency
Project Approval/Certification of PEIR	County of San Diego
Minor Grading Permit	County of San Diego
Clearing Permit	County of San Diego
Regional General Permit	ACOE
1602 Streambed Alteration Agreement	CDFG
404 Permit Federal Clean Water Act—Dredge and Fill	ACOE
401 Water Quality Certification	RWQCB/SWRCB
Coastal Development Permit	CCC
Section 7 Consultation or Section 10a Incidental Take Permit	USFWS
General Construction Stormwater Permit	RWQCB
Local Jurisdictional Permits	All local jurisdictions
National Pollutant Discharge Elimination System (NPDES) Permit	RWQCB

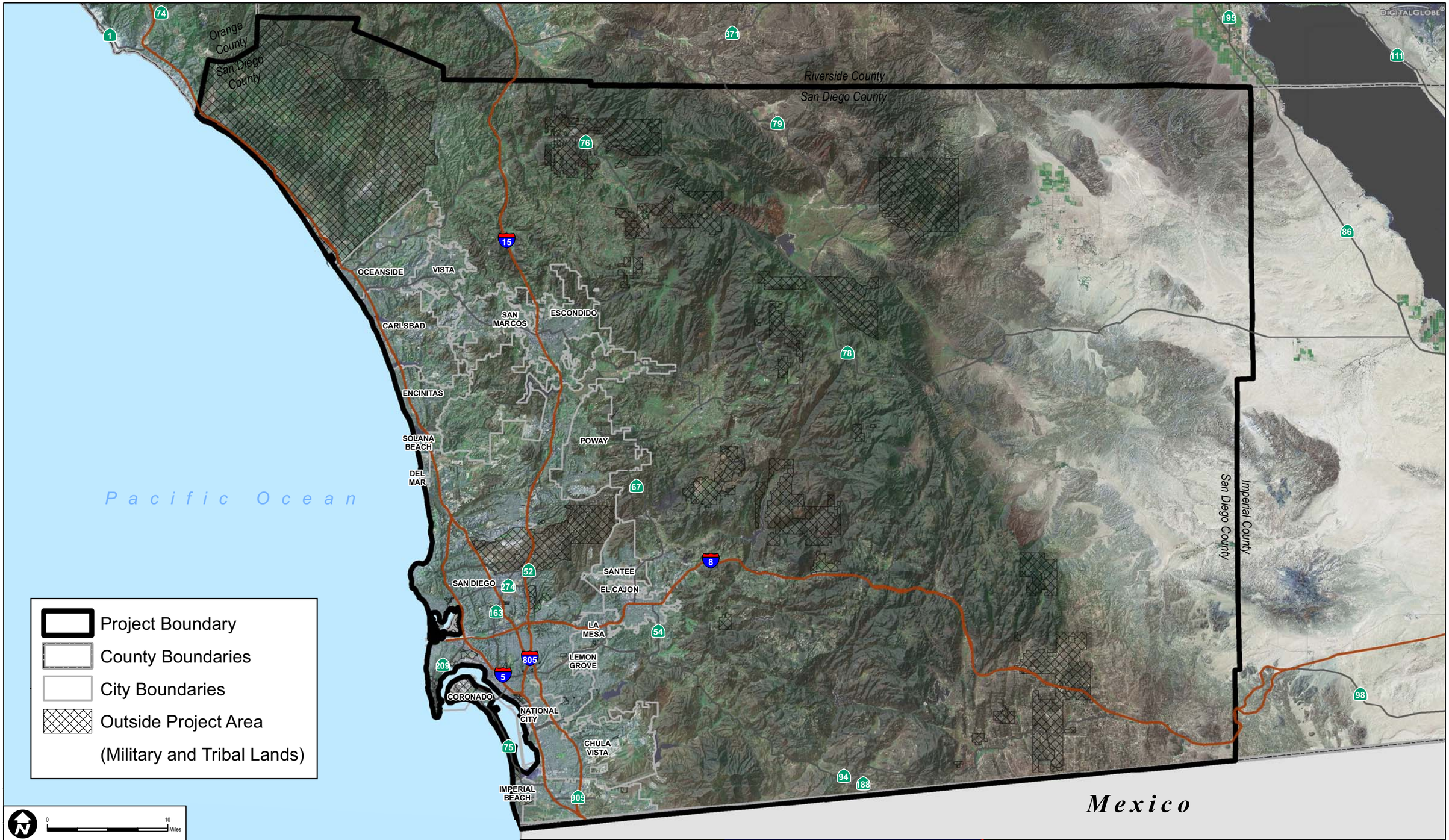
Notes:
ACOE = U.S. Army Corps of Engineers
RWQCB = Regional Water Quality Control Board
CDFG = California Department of Fish and Game
USFWS = U.S. Fish and Wildlife Service
CCC = California Coastal Commission
SWRCB = State Water Resource Control Board



Note: Military and tribal lands are excluded from the project area.

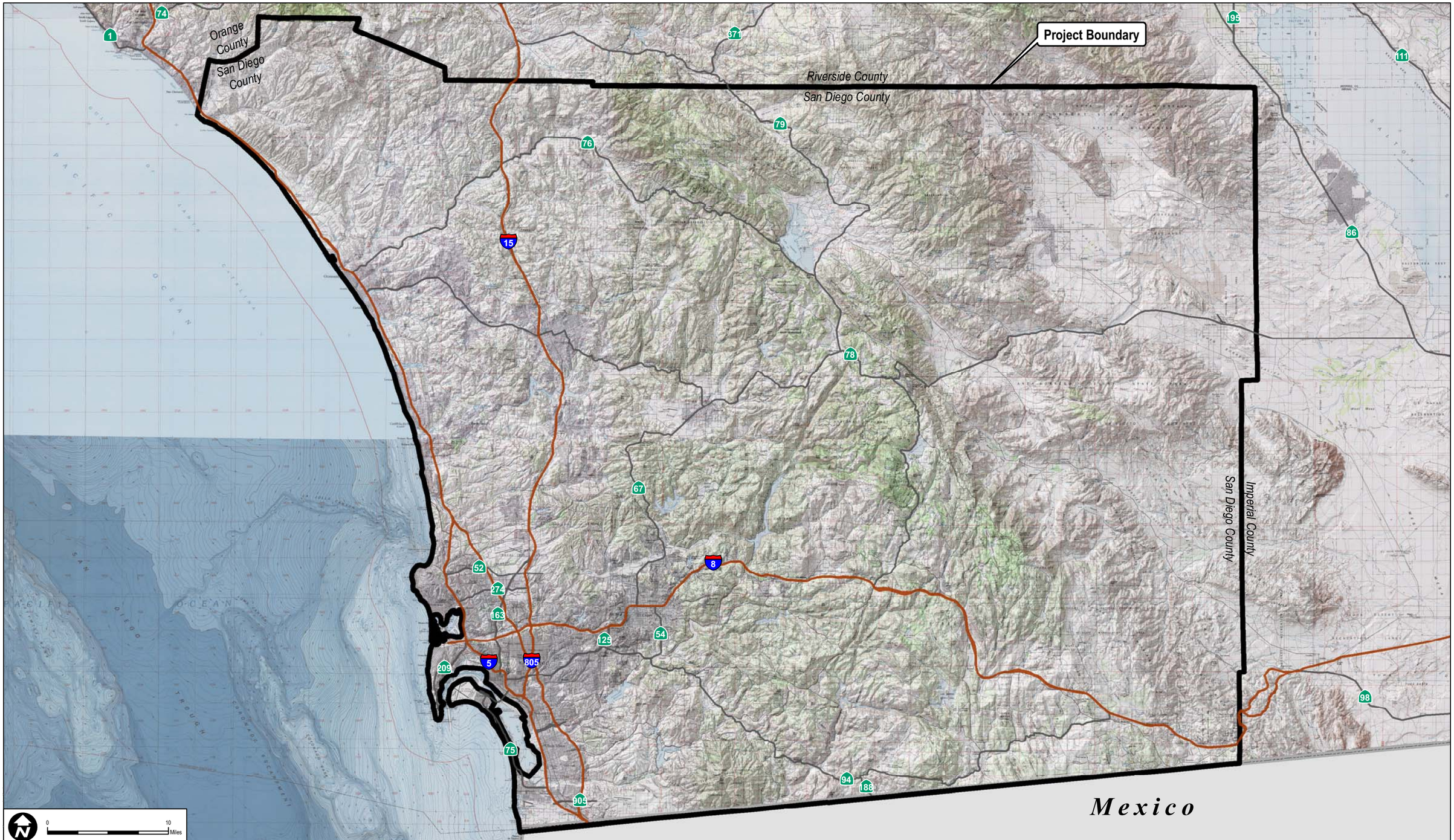
FIGURE 1-1

Regional Map



SOURCE: DIGITALGLOBE 1999.

FIGURE 1-2
Vicinity Map



SOURCE: USGS 100K Topo
Note: Military and tribal lands are excluded from the project area.

FIGURE 1-3
Topographic Map

CHAPTER 2.0 SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

As the proposed VHRP is a County program and as the lead agency is the County of San Diego DEH, the analyses in this chapter and *Chapter 3, Environmental Effects Found Not To Be Significant,* address County thresholds, policies, and ordinances and not those of other jurisdictions located throughout the County (i.e., Cities of San Diego, Chula Vista, etc.). However, approval of the VHRP does not eliminate the requirement for individual projects implemented under the VHRP to comply with all applicable policies, guidelines, regulations, etc. of the jurisdiction in which the project site is located.

2.1 Biological Resources

This section discusses impacts on sensitive biological resources resulting from implementation of the proposed project. The analysis and discussion provided herein does not assume that the County has obtained or will obtain umbrella permits from the resource agencies to cover qualifying projects as discussed in Section 1.5.1. However, a discussion of the potential differences with respect to environmental impacts and mitigation measures if umbrella permits are obtained is provided in Section 2.1.6.

2.1.1 Existing Conditions

Implementation of the VHRP is intended to occur in areas throughout San Diego County (*Figure 1-1*) that support or have the potential to support mosquito breeding habitat, which generally consists of still, shallow water that persists for more than 72 hours. These conditions can occur within both developed and natural areas.

The landscape of San Diego County is diverse and includes broad, flat valleys; deep canyons; perennially flowing rivers; intermittent and ephemeral drainages; moderately and steeply sloped terrain; steep coastal bluffs; flat mesas; rolling foothills; and a series of coastal bays, inlets, and lagoons (County of San Diego 1997). Elevations range from mean sea level along the Pacific coast shoreline to over 6,000 feet above mean sea level in the inland portions of San Diego County near Palomar Mountain.

2.1.1.1 *Regulatory Environment*

This section outlines some of the applicable regulations related to biological resources.

Federal Regulations

Endangered Species Act

The federal Endangered Species Act (ESA) protects the fish, wildlife, and plant species, along with their habitats, that have been identified by USFWS or National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) as threatened or endangered. *Endangered* refers to species, subspecies, or distinct population segments that are in danger of extinction through all or a significant portion of their range; *threatened* refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the former Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs. Most actions that result in taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. USFWS is responsible for overseeing compliance with the MBTA, and the U.S. Department of Agriculture's (USDA's) Animal Damage Control Officer makes recommendations on related animal protection issues.

Clean Water Act

The federal Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the United States. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands.

Waters of the United States are areas subject to federal jurisdiction pursuant to Section 404 of the CWA. Waters of the United States are typically categorized into two types, *wetlands* and *other waters of the United States*, which are defined as follows:

- *Wetlands* are "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Code of Federal Regulations [CFR], title 33, section 328.3[b], 40 CFR § 230.3). To be considered subject to federal jurisdiction, a wetland must normally support hydrophytic vegetation, hydric soils, and wetland hydrology.

- *Other waters of the United States* are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark (OHWM) but lack positive indicators for the three wetland parameters described above (33 CFR 328.4).

State Regulations

Fully Protected Species

The California Fish and Game Code provides protection from take for a variety of species, referred to as *fully protected species*. *Take* is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 5050 lists protected amphibians and reptiles. Section 3515 prohibits take of fully protected fish species. Eggs and nests of all birds are protected under Section 3503, nesting birds (including raptors and passerines) under Sections 3503.5 and 3513, birds of prey under Section 3503.5, and fully protected birds under Section 3511. Migratory non-game birds are protected under Section 3800. Mammals are protected under Section 4700.

Streambed Alteration Agreements (Section 1602 et seq.)

CDFG has jurisdictional authority over wetland resources associated with rivers, streams, and lakes under California Fish and Game Code Section 1602. CDFG has the authority to regulate all work under the jurisdiction of California that would substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed.

In practice, CDFG marks its jurisdictional limit at the top of the stream or lake bank or the outer edge of the riparian vegetation, where present, and sometimes extends its jurisdiction to the edge of the 100-year floodplain. Because riparian habitats do not always support wetland hydrology or hydric soils, wetland boundaries, as defined by CWA Section 404, sometimes include only portions of the riparian habitat adjacent to a river, stream, or lake. Therefore, jurisdictional boundaries under Section 1602 may encompass a greater area than those regulated under CWA Section 404.

CDFG enters into a streambed alteration agreement with an applicant and can request conditions to ensure that no net loss of wetland values or acreage will be incurred. The streambed or lakebed alteration agreement is not a permit but, rather, a mutual agreement between CDFG and the applicant.

Porter-Cologne Water Quality Control Act

This Act is the California equivalent of the federal CWA. It provides for statewide coordination of water quality regulations through the establishment of the California SWRCB and nine separate RWQCBs that oversee water quality on a day-to-day basis at the regional/local level.

California Endangered Species Act

Section 2050 of the California Fish and Game Code prohibits any activities that would jeopardize or take a species designated as threatened or endangered by the state.

Natural Community Conservation Planning Act of 1991

The state Natural Community Conservation Planning (NCCP) Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. The CDFG is the principal state agency implementing the NCCP program. NCCP plans developed in accordance with the Act provide for comprehensive management and conservation of multiple wildlife species, and identify and provide for the regional or area-wide protection and perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth.

In San Diego County, several resource conservation-planning efforts have been completed or are in progress, with the long-term goal of establishing a regional reserve system that will protect native habitat lands and their associated biota. The ultimate goals of these plans are (1) the establishment of biological reserve areas in conformance with the NCCP Act, and (2) contribution to the preserve system already established by the approved County MSCP and MHCP.

Local Regulations

San Diego County Resource Protection Ordinance

The San Diego County RPO regulates development in order to prevent degradation and loss of wetlands, floodplains, steep slopes, sensitive biological habitats, and cultural resources.

2.1.1.2 *Vegetation Communities*

This discussion of vegetation communities within San Diego County is based on a review of available regional data and vegetation mapping within approved NCCP subarea plans. Vegetation communities within San Diego County include forests, woodlands, scrub communities, chaparral, grasslands, wetland/riparian areas, nonnative vegetation, agriculture, and urban/developed areas (see *Table 2-1.1, Vegetation Communities in San Diego County*).

Natural areas supporting mosquito breeding habitat generally include existing streams, creeks, and drainages with stagnant or slow-moving water flow. Vegetation communities prevalent in these areas would include, but are not limited to, southern willow scrub, southern coast live oak riparian forest, mulefat scrub, southern riparian woodland, herbaceous wetlands, alkali meadow, tidal wetlands, seasonal wetlands, open water, open channel, and disturbed wetlands. Adjacent vegetation communities could include a range of rare and common upland communities, including, but not limited to, coastal sage scrub, chaparral, maritime succulent scrub, eucalyptus woodlands, grasslands (both native and nonnative), and urban/developed areas.

2.1.1.3 *Plants*

San Diego County is a botanically diverse region populated by a rich variety of plant species owing to a blend of climatic, geographic, geologic, and floristic features that are unique and/or endemic to this region of Southern California (San Diego Natural History Museum [SDNHM] 2009). San Diego County represents the southwest region of the California Floristic Province and the Sonoran Region of the Desert Province, spanning a range of habitats from the Pacific coast to mesas, foothills, mountains, and desert areas (SDNHM 2009). Over 1,500 native plant species and almost 500 nonnative species have been identified and documented County-wide, including a number of special-status plant species.

Special-Status Plants

Special-status plant species are species that have been given special recognition by federal, state, or local conservation agencies and organizations due to limited, declining, or threatened population sizes. Species include those listed by the state and federal government as threatened or endangered; those proposed for state and/or federal listing or candidates; and those found on Lists 1A, 1B, 2, or 3 of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (2001) or CNPS online inventory (http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi).

In August 2008, EDAW, Inc. finalized the *Channel Maintenance Programmatic Permitting Guide* for 14 incorporated cities throughout San Diego County (Carlsbad, Chula Vista, Encinitas, Escondido, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, and Vista). The guide was prepared in response to directives issued by the RWQCB in 2004 to encourage all cities to develop a Required Technical Report addressing channel maintenance activities within their jurisdictions and to pursue permits for that work accordingly. The Guide outlines the foreseeable environmental constraints that may be encountered as municipalities seek to maintain existing and proposed flood control facilities. It also identifies the necessary steps to procure long-term, programmatic permits from the resource agencies. Such identified environmental constraints included critical habitat and special-status

species associated with stormwater and flood control facilities (i.e., wetlands and riparian habitats).

As of 2008, there were approximately 267 special-status plant species documented throughout San Diego County, 192 of which occur in upland habitats outside of natural stream channels, creeks, wetlands, and other special aquatic sites. The remaining 75 species typically occur in natural riparian and/or aquatic areas (vernal pools, riparian forests, riparian scrub, riparian woodland, playas, meadows, marshes, and swamps), which are the areas that could support mosquito breeding habitat. Listed plant species have the potential to occur in project areas where suitable habitat and soils are present. Of the 267 documented special-status species, 33 are state- and/or federally listed as endangered or threatened. Of those 33 species, 10 (including Gambel's watercress, Borrego bedstraw, and Dehesa nolina) are limited to higher elevations than occur within the incorporated municipal boundaries, or to desert habitats well outside the incorporated boundaries in San Diego County. The remaining 23 listed plant species are presented in *Table 2.1-2, Listed Plant Species Potentially Occurring in San Diego County,* and include wetland- or riparian-associated species and upland species (EDAW 2008).

Within San Diego County, the USFWS has designated various areas as critical habitat for four listed plant species: Otay tarplant, thread-leaved brodiaea, spreading navarretia, and willowy monardella (refer to *Figure 2.1-1, USFWS-Designated Critical Habitat for Plants and Wildlife—Southern San Diego County,* and *Figure 2.1-2, USFWS-Designated Critical Habitat for Plants and Wildlife—Northern San Diego County*). Pursuant to Section 3 of the ESA, critical habitat signifies geographic areas that contain features essential for the conservation of a threatened or endangered species and may require special management considerations or protection. In addition, critical habitat includes specific areas outside the geographic area occupied by the species at the time it is listed, if it is determined that such areas are essential for the conservation of the species.

2.1.1.4 *Wildlife*

San Diego County is rich in wildlife diversity, owing to a wide range of ecological zones with over 475 bird species, 15 amphibian species, 64 reptile species, over 100 mammal species, thousands of invertebrate species, and a wide array of fish species (SDNHM 2009).

Special-Status Wildlife Species

Special-status wildlife species are those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS and CDFG, and that are considered sensitive by the CDFG.

In total, San Diego County is home to approximately 114 special-status wildlife species, consisting of 21 invertebrates, 6 fish, 6 amphibians, 16 reptiles, 34 birds, and 31 mammals. Of the 114 special-status species, only 27 are state- and/or federally listed endangered or threatened. Of the 27 listed species, 7 (including desert pupfish, mountain yellow-legged frog, and peninsular bighorn sheep) are limited to areas well outside the incorporated municipal boundaries in San Diego County. The remaining 20 wildlife species are listed in *Table 2.1-3, Listed Wildlife Species Potentially Occurring in San Diego County*, and include aquatic species, wetland- or riparian-associated species, and upland species (EDAW 2008). USFWS has afforded critical habitat to 8 of the species presented in *Table 2.1-3*: least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), quino checkerspot butterfly (*Euphydras editha quino*), arroyo toad (*Bufo californicus*), coastal California gnatcatcher (*Polioptila californica californica*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), Riverside fairy shrimp (*Streptocephalus woottoni*), and tidewater goby (*Eucyclogobius newberryi*).

2.1.1.4 *Wildlife Movement and Nursery Sites*

There are several elements that help to define wildlife movement and how wildlife move spatially through an area. Wildlife corridors are linear landscape features that connect large patches of natural open space and provide avenues for animals to migrate between these natural areas. Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires).

Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

Native wildlife nursery sites refer to areas in which members of the same species collectively breed and rear offspring in substantial numbers.

To function effectively, a wildlife corridor must link two or more patches of habitat for which connectivity is desired, and it must be suitable for the focal target species to achieve the desired demographic and genetic exchange between populations. In general, San Diego County supports a mixture of highly urbanized development, relatively natural lands, and intact natural landscapes fringed with encroaching development. High-mobility (e.g., coyote [*Canis latrans*] and deer [*Odocoileus hemionus*]) and moderate-mobility (e.g., raccoon [*Procyon lotor*] and skunk

[*Mephitis mephitis*]) ground-dwelling species are likely to access more urban, populated centers by traversing major roadways, drainage culverts, and streams/creeks. San Diego County supports numerous large, contiguous undeveloped areas that connect natural areas in eastern San Diego County to the Pacific coast and provide movement areas for wildlife.

There are no documented native wildlife nursery sites in San Diego County; however, there is suitable habitat owing to successful wildlife movement throughout the region for common wildlife and resident and migratory avifauna.

2.1.2 Analysis of Project Effects and Determination as to Significance

The VHRP will focus on locating and eliminating stagnant water and weedy/overgrown areas that support mosquito breeding in accordance with the key concepts referenced in *Chapter 1* of this PEIR. For areas where breeding sources cannot be removed, the VHRP supports the use of natural methods that have been found environmentally safe and are endorsed by the EPA, the University of California, and the CDC.

Biological resources within San Diego County were evaluated using existing regional databases, including the San Diego Association of Governments (SANDAG) MSCP biological resources maps, the County MSCP Subarea Plan, individual subarea plans for incorporated cities (in draft and final form), the California Natural Diversity Database (CNDDB), and the CNPS electronic inventory. Site-specific general or focused biological survey work—including vegetation mapping per County biological resource mapping requirements, general floral surveys, general wildlife surveys, habitat assessments for sensitive resources, and wetland determinations/delineations—has not been conducted as the future locations of VHRP-eligible projects are not known at this time. This PEIR addresses impacts and mitigation on a programmatic level. Potential impacts were identified based on resources occurring or with the potential to occur within the County. Mitigation measures are recommended to compensate for potential impacts and/or protect sensitive natural resources, including predetermined mitigation ratios and/or avoidance mechanisms.

The following significance thresholds for biological resources are based specifically on criteria provided in the County's Guidelines for Determining Significance and Report Format Guidelines (2008a). The Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and were developed using the best available information and with input from experts and the public. All information necessary to properly and thoroughly evaluate project impacts was reviewed in preparing this PEIR. A significant impact would result if any of the following would occur:

- The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- The project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- The project would have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.), through direct removal, filling, hydrological interruption, or other means.
- The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
- The project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species.
- The project has impacts that are individually limited, but cumulatively considerable. ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future project.)

2.1.2.1 *Special-Status Plants*

Guidelines for the Determination of Significance

A significant impact would result if

- The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Analysis

Direct Impacts

Projects implemented under the VHRP have a potential to result in direct permanent removal of special-status plant species if present within any individual work area. Such effects would result in a significant direct impact (Impact BI-1) to special-status plant species. A list of special-status species with potential to occur in San Diego County is provided in *Table 2.1-2*.

Indirect Impacts

Indirect impacts on special-status plant species could occur during vegetation thinning/removal, minor grading, etc. Indirect impacts may include impacts from fugitive dust, which could disrupt plant vitality in the short term, or construction-related soil erosion and water runoff. Indirect impacts on special-status plant species could occur in the absence of best management practices (BMPs) and construction-related minimization measures to control dust, erosion, and runoff; and without compliance with National Pollution Discharge Elimination System (NPDES) requirements. This impact would be considered a significant short-term indirect impact (Impact BI-2)

Potential impacts on special-status plants could also occur due to unauthorized construction activities and human trampling adjacent to approved construction limits. This would be considered a significant short-term indirect impact (Impact BI-3).

2.1.2.2 *Special-Status Wildlife Species*

Guidelines for the Determination of Significance

A significant impact would result if

- The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Analysis

Direct Impacts

Vegetation clearing, grubbing, and associated earth-disturbing activities have the potential to kill, injure, or disturb special-status wildlife species and/or modify or destroy associated habitat, as described in *Table 2.1-2*. Any work area supporting vegetation (i.e., trees, sub-shrubs, and

shrubs) could provide potential nesting habitat and/or foraging habitat for birds/raptors protected under the federal MBTA. If construction commences during the bird breeding season (January 15 through September 15 due to the raptor and MBTA breeding seasons), potentially breeding birds could be directly impacted by vegetation clearing activities. In addition, direct impacts on listed species may occur if work occurs in or immediately adjacent to areas supporting listed species and/or their critical habitat, including, but not limited to, coastal California gnatcatcher, arroyo toad, light-footed clapper rail, least Bell's vireo, and/or southwestern willow flycatcher. Therefore, implementation of projects under the VHRP may result in direct impacts on special-status wildlife species if present within the work areas. Any such effects would result in significant direct impacts (Impact BI-4) on special-status wildlife species.

Indirect Impacts

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of state and federal laws. The federal MBTA prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

Breeding birds can be significantly affected by short-term construction-related noise, which can result in the disruption of foraging, nesting, and reproductive activities. Therefore, indirect impacts on special-status wildlife due to construction-related noise may occur as a result of the proposed project. Any such effects would be considered a significant short-term indirect impact (Impact BI-5).

Increased human activity in individual work areas may occur during project construction, and additional impacts may potentially occur outside of the delineated work areas. Potential impacts on special-status wildlife species could occur due to human trampling and unauthorized construction activities adjacent to approved construction limits. Any such effects would be considered a significant short-term indirect impact (Impact BI-6).

2.1.2.3 *Riparian Habitat or Special-Status Natural Community*

Guidelines for the Determination of Significance

A significant impact would result if

- The project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Analysis

Direct Impacts

Based on a review of available regional data, a diverse assemblage of special-status vegetation communities occur throughout San Diego County, including various types of wetlands, non-wetland waters, and rare upland habitats.

The implementation of projects under the VHRP has the potential to result in significant direct impacts on wetlands, non-wetland waters, and rare upland habitats throughout San Diego County.

Specific project sites have not yet been identified. Therefore, potential impacts on special-status vegetation cannot be specifically quantified. However, permanent and temporary impacts on special-status vegetation communities resulting from the direct removal, dredge, or fill of habitat would be considered a significant direct impact (Impact BI-7).

Indirect Impacts

During construction activities, which could include vegetation thinning/removal, minor grading, etc., dust and construction-related soil erosion and runoff could disrupt plant vitality in the short term. Riparian communities in or immediately downstream of proposed work areas could be adversely affected by potential surface runoff and sedimentation during construction. The use of petroleum products (fuels, oils, lubricants) and erosion of cleared land during construction could potentially contaminate surface water. Indirect impacts on special-status vegetation communities could occur in the absence of BMPs. This would be a significant short-term indirect impact (Impact BI-8).

Increased human activity in individual work areas may occur during project construction, and additional impacts may potentially occur outside of the delineated work areas. Potential impacts on special-status vegetation communities, including riparian habitats, could occur due to human trampling and unauthorized construction activities adjacent to approved construction limits. Such effects would be considered a significant short-term indirect impact (Impact BI-9).

2.1.2.4 *Federal Wetlands*

Guidelines for the Determination of Significance

A significant impact would result if

- The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Analysis

Direct Impacts

Natural areas supporting mosquito breeding habitat generally include existing streams, creeks, and drainages with stagnant or slow-moving water flow. These areas would be regulated by the ACOE under Section 404 of the CWA.

Through the implementation of the VHRP, a process will be identified that prioritizes projects and distributes funds in a manner that successfully enables reduction of mosquito breeding habitat through management and design activities, such as wetland and water quality treatment design, vegetation manipulation, and water management. These proposed concepts will reduce and/or eliminate areas of shallow, standing water where mosquitoes successfully reproduce. As part of the VHRP, additional projects may involve changes in an aquatic system's physical characteristics to provide steep edges, maximize the area of deep open water pools, create surface connections between pools, and encourage wave action and circulation. Water management activities aimed at elimination or reduction of mosquito breeding habitat often involve limiting water retention time to less than 72 hours (which would include sedimentation basins, etc., and not the draining of natural wetland areas), and increasing water agitation and wave action. Vegetation management activities for mosquito control generally involve removal of dense vegetation such that only narrow strips remain along wetland margins and within wetland pools. In addition, ongoing maintenance and monitoring are crucial to provide long-term solutions and ensure that aquatic systems maintain desired levels of flow and circulation.

Thus, the project would result in direct impacts on federal wetlands through dredging, filling, grading, placement of structures, vegetation removal, and temporary construction access. Any such activities would be considered a significant direct impact (Impact BI-10).

Indirect Impacts

Federal wetlands in or immediately downstream of proposed work areas could be adversely affected by potential surface runoff and sedimentation during construction. The use of petroleum products (fuels, oils, lubricants) and erosion of cleared land during construction could potentially contaminate surface water in the absence of BMPs. This would be considered a significant short-term indirect impact (Impact BI-11).

Increased human activity (i.e., human trampling) in individual work areas may occur during project construction, and additional impacts may potentially occur outside of the delineated work areas. Potential impacts on federally protected wetlands could occur due to human trampling and unauthorized construction activities adjacent to approved construction limits. Such effects would be considered a significant short-term indirect impact (Impact BI-12).

2.1.2.5 *Wildlife Movement and Nursery Sites*

Guidelines for the Determination of Significance

A significant impact would result if

- The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

This guideline is used to determine if the project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction; would substantially interfere with connectivity between blocks of habitat; or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage. The guideline is also used to determine if the project would create artificial wildlife corridors that do not follow natural movement patterns; or would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement. Finally, this guideline is used to determine if the project would not maintain an adequate width for an existing wildlife corridor or linkage; and/or would further constrain an already narrow corridor through activities such as reduction of corridor width, removal of available vegetative cover, placement of adjacent incompatible uses, and placement of barriers in the movement path. The adequacy of the width should be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor should be well vegetated and adequately buffered from adjacent development.

Analysis

The NCCP focuses on establishing and preserving large expanses of habitat for the purpose of enhancing and restoring the rich biological diversity throughout San Diego County. Projects implemented under the VHRP would occur in areas adjacent to urban development and population centers as well as rural areas throughout the County. Large, contiguous blocks of suitable corridor habitat would continue to be protected through implementation of the proposed project and would continue to connect with other areas of native habitat in and near each project work area. Although project activities may temporarily displace wildlife from the vicinity of grading and project construction, wildlife are expected to return to natural areas upon work completion. Therefore, this is considered a less-than-significant impact.

The proposed project would not result in significant impacts on wildlife movement, as the project would not involve vegetation clearing or other activities to such an extent that they would prevent wildlife from accessing areas considered necessary to their survival; restrict wildlife from utilizing their natural movement paths; further constrain a narrow corridor by reducing width, removing available vegetative cover, or placing barriers in pathways of movement; encroach into or significantly reduce the width of existing wildlife movement corridors or impede/restrict wildlife movement. In accordance with the design features listed in this PEIR, vegetation removal would be that necessary to reduce mosquito breeding habitat and strips of vegetation would be retained (i.e., the projects would not involve clear cutting of large contiguous areas of native vegetation). There are no known nursery sites within or near San Diego County in which significant numbers of native wildlife communally breed and raise offspring. Therefore, impacts on wildlife corridors or wildlife nursery sites resulting from implementation of the VHRP would be less than significant.

2.1.2.6 *Local Policies, Ordinances, Adopted Plans*

Guidelines for the Determination of Significance

A significant impact would result if

- The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Analysis

In accordance with the VHRP project design features (listed in *Chapter 7*), VHRP-eligible projects will be required to be consistent with local policies and ordinances protecting biological

resources and will be consistent with the goal of promoting public health, safety, and welfare through the reduction of mosquito breeding habitat. Therefore, implementation of the VHRP would result in no significant impact on local policies, ordinances, and adopted plans.

2.1.3 Cumulative Impact Analysis

Guidelines for the Determination of Significance

A significant cumulative impact would result if

- The project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species.
- The project has impacts that are individually limited, but cumulatively considerable. ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future project.)

Analysis

Local environmental regulations, including habitat conservation plans, are employed during CEQA review of discretionary projects to minimize the effects of development on biological resources. The guiding principle of these regulations is to ensure no net loss of special-status habitat and to avoid impacts on special-status plant and wildlife species. Nonetheless, future population growth and sprawl development could result in significant cumulative impacts on biological resources through earthwork, construction activities, and other human activity within San Diego County.

As the location of future VHRP-eligible projects are not known at this time, a detailed analysis of the potential cumulative impacts related to biological resources in San Diego County cannot be conducted. Projects under the VHRP are intended to protect public health and safety by reducing mosquito breeding habitat as a long-term viable solution to reducing disease transmission. Project activities may have an initial impact on biological resources in natural, undeveloped areas, but the post-project condition in each project area will be a healthy, functioning riparian system with improved hydraulics, functions, and services. The intent of the proposed project is to maximize health and safety benefits through the successful management of mosquito breeding habitat, while avoiding and/or minimizing impacts on biological resources. Therefore, due to the nature and scale of the projects anticipated to be implemented under the VHRP (minor ground disturbance, vegetation clearing, etc. in order to reduce mosquito breeding

habitat); the requirement to conform to the project design features outlined in this PEIR; the requirement to comply with all applicable federal, state, and location regulations; and the requirement to implement the mitigation measures outlined in this PEIR; projects implemented under the VHRP would not have a cumulatively considerable contribution to any potentially significant impact on biological resources that may be identified in San Diego County.

2.1.4 Significance of Impacts Prior to Mitigation

BI-1 Projects under the Vector Habitat Remediation Program have a potential to result in direct removal of special-status plant species if present within the work areas. This would be considered a *significant direct impact.*

BI-2 Potential indirect impacts on special-status plant species could occur in the absence of best management practices and construction-related minimization measures to control dust, erosion, and runoff. This would be a *significant short-term indirect impact*.

BI-3 Indirect impacts on special-status plant species could occur due to unauthorized construction activities and human trampling. This would be a *significant short-term indirect impact*.

BI-4 The project has the potential to directly impact special-status wildlife species, including breeding birds and listed wildlife species, if present within the work areas. This would be considered a *significant direct impact.*

BI-5 Indirect impacts on special-status wildlife due to construction-related noise may occur as a result of the proposed project. This would be considered a *significant short-term indirect impact*.

BI-6 Potential impacts on special-status wildlife species could occur as a result of human trampling and unauthorized construction activities adjacent to approved construction limits. Such effects would be considered a *significant short-term indirect impact*.

BI-7 Impacts on special-status vegetation communities, including riparian habitat, resulting from the direct removal of habitat, would be considered a *significant direct impact.*

BI-8 Indirect impacts on special-status vegetation communities, including riparian habitats, could occur in the absence of best management practices and construction-related minimization measures to control dust, erosion, and runoff. This would be a *significant short-term indirect impact*.

BI-9 Potential impacts on sensitive vegetation communities, including riparian habitats, could occur due to human trampling and unauthorized construction activities adjacent to approved construction limits. Any such effects would be considered a *significant short-term indirect impact*.

BI-10 Federal jurisdictional waters of the United States, including wetlands, may be permanently and temporarily impacted by projects through activities such as direct removal and/or fill due to vegetation management and wetland and water quality treatment system design. This would be considered a *significant direct impact.*

BI-11 In the absence of best management practices to control dust, erosion, and surface runoff, federal jurisdictional waters of the United States, including wetlands, could be indirectly impacted by the project. This would be considered a *significant short-term indirect impact*.

BI-12 Impacts on federal jurisdictional waters of the United States, including wetlands, could occur due to human trampling and unauthorized construction activities adjacent to approved construction limits. Any such effects would be considered a *significant short-term indirect impact*.

2.1.5 Mitigation

The mitigation measures listed below will be implemented if the corresponding impact listed above is identified for a particular project to be constructed under the VHRP. If a specific impact is not identified for a particular project to be constructed under the VHRP, implementation of the associated mitigation measure will not be required.

Impact BI-1: Direct Impacts on Special-Status Plant Species

MI-BI-1a To avoid permanent and temporary impacts on special-status plant species, a preconstruction survey to determine the presence/absence of special-status plant species shall be conducted for projects where suitable habitat exists and where proposed project activities would result in impacts on potentially suitable habitat. At least two surveys shall be conducted for each site: one during the spring and one during the summer, if suitable habitat occurs within the project vicinity such that project activities could have the potential to impact the suitable habitat. Project design components, including construction work, shall avoid to the extent practicable any habitat with the potential to support special-status plants. If special-status plant species are found, those individuals or populations shall be avoided, or mitigation measures (which could include transplantation, etc.) shall be implemented that would reduce impacts to below a level of significance.

Impacts on state or federal listed species will require consultation under the Endangered Species Act.

M-BI-1b A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place.

Impact BI-2: Indirect Impacts on Special-Status Plant Species

M-BI-2a Best management practices to address erosion and excess sedimentation would be incorporated into the project plans. At minimum, the plans should show the locations of temporary fencing, drainage inlet protection, gravel bags, fiber rolls, temporary construction access paths, and any other procedures deemed appropriate by the County.

M-BI-2b Topsoil shall be stockpiled in disturbed areas currently lacking native vegetation. Stockpile areas will be delineated on the project plans by a qualified biologist.

M-BI-2c The changing of oil, refueling, and other actions that could result in a release of a hazardous substance shall be restricted to designated areas that are a minimum of 100 feet from documented special-status plant populations, sensitive habitats, or drainages. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" shall be designated on construction maps. Designated fueling areas shall be demarcated in the field by berms, sandbags, or other artificial barriers designed to further prevent accidental spills. Accidental spills of hazardous substances shall be immediately contained, cleaned up, and properly disposed.

Impact BI-3: Indirect Impacts on Special-Status Plants (Errant Construction and Human Trampling)

M-BI-3a Areas to be avoided that contain sensitive biological resources shall be flagged by a qualified biologist prior to the onset of project activities. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones.

M-BI-3b Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. Construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing to ensure that construction activity remains within the defined limits evaluated and approved by County staff. A qualified

biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts.

M-BI-3c Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application.

M-BI-3d Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, all vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and shall be reviewed by a qualified biologist.

Impact BI-4: Direct Impacts on Special-Status Wildlife Species

M-BI-4a Removal of vegetation, including but not limited to, trees, sub-shrubs, and shrubs, shall be conducted outside of the bird and raptor breeding season (January 15 to September 15). If vegetation removal is unavoidable during the bird and raptor breeding season, and listed species are not present, then pre-construction surveys shall be conducted within one week prior to work in each individual project area supporting suitable nesting bird habitat to document breeding activity of migratory birds within or immediately adjacent to the proposed work areas. If an active bird nest is found, the nest shall be flagged and mapped on the project plans along with an appropriate buffer, which shall be determined by the biologist based on the biology of the species. The buffer shall be delineated by temporary fencing and shall remain in effect as long as construction occurs or until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing.

M-BI-4b Where habitat for state- and/or federally listed species is identified on or adjacent to the project work sites, vegetation clearing, grubbing, and sediment removal shall occur outside the breeding/mating seasons listed below:

a. arroyo toad—March 15 to July 31
b. least Bell's vireo—March 15 to September 15
c. southwestern willow flycatcher—March 15 to September 15
d. coastal California gnatcatcher—February 15 to August 31
e. light-footed clapper rail—March 1 to August 31

M-BI-4c If potentially suitable habitat for state- and/or federally listed species is detected at any of the prescribed project sites, focused protocol surveys for each species with potential to occur shall be conducted. If state- and/or federally listed species are determined to occur within the project impact area, consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game under the Endangered Species Act shall be initiated and any resulting mitigation measures identified during consultation shall be implemented.

Impact BI-5: Construction-Related Noise Impacts on Special-Status Wildlife Species

M-BI-5 For construction activities adjacent to habitats occupied by listed avian species (e.g., California gnatcatcher, least Bell's vireo, and southwestern flycatcher) in which noise is produced in excess of 60 dB(A)L_{eq} or ambient noise levels (if ambient levels are above 60), noise attenuation structures shall be placed prior to the beginning of the breeding season for these species to reduce noise levels at the nest site to 60dB(A)L_{eq} (or ambient if ambient is over 60). During construction adjacent to these areas, noise monitoring shall occur during the breeding season for these species and daily monitoring reports shall be submitted to the U.S. Fish and Wildlife Service. In the event that construction activities create noise in excess of the thresholds described above, work shall cease until effective noise attenuation structures or devices are in place.

Impact BI-6: Indirect Impacts on Special-Status Wildlife Species (Errant Construction and Human Trampling)

M-BI-6a A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place.

M-BI-6b Prior to the onset of project activities, a qualified biologist shall flag areas to be avoided that contain sensitive biological resources, including appropriate buffers. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones.

M-BI-6c Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. All construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing, to ensure that construction activity remains within the defined limits evaluated and approved by County staff. A

qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts.

M-BI-6d Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application.

M-BI-6e Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, all vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and shall be reviewed by a qualified biologist.

Impact BI-7: Direct Impacts on Natural Communities and Riparian Habitats

M-BI-7a Prior to conducting work in any individual work area, a biological assessment shall be conducted to inventory existing flora and faunal resources; provide a thorough assessment of rare plants and wildlife and rare natural communities that may be present on site; and inventory rare, threatened, endangered, and otherwise sensitive species in the work area(s) and within the area of potential effect.

M-BI-7b Permanent loss of riparian and wetlands habitat shall be offset with equal or better habitat function at ratios commensurate with project impacts, ranging from 1:1 to 3:1. Final mitigation ratios for specific habitat types shall be determined based on the quality and quantity of resources impacted or, for projects within the planning area of a finalized habitat conservation plan, in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that temporary impacts on riparian and wetlands habitat would be offset through the restoration of temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio.

M-BI-7c Permanent loss of native upland habitat (sage scrub, chaparral, native grasslands, oak woodland, etc.) shall be offset with equal or better habitat function at ratios commensurate with project impacts, ranging from 1:1 to 3:1. Final mitigation ratios for specific habitat types will be determined based on the quality and quantity of resources impacted or, for projects within the planning area of a finalized habitat conservation plan, in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat

conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that all temporary impacts on native upland habitat would be offset through the restoration of all temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio.

M-BI-7d Permanent loss of nonnative grassland habitat shall be offset at a minimum 0.5:1 ratio consisting of creation, enhancement, restoration, or use of credits within an approved mitigation bank. Permanent and temporary project impacts within the planning area of a finalized habitat conservation plan shall be offset in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that all temporary impacts on nonnative grassland habitat would be offset through the restoration of all temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio.

M-BI-7e Restoration plans and revegetation construction documents needed to ensure the successful revegetation of impacted habitats shall be prepared by qualified personnel with experience in southern California ecosystems and native plant revegetation techniques. These plans shall include, at minimum, the following information: (a) the location of the mitigation site(s); (b) the plant species to be used, container sizes, and seeding rates; (c) the plant materials' sources and lead time; (d) a schematic depicting the mitigation areas; (e) a planting schedule; (f) a description of installation requirements, irrigation sources and methodology, erosion control, maintenance and monitoring requirements; (g) measures to properly control exotic vegetation on site; (h) site-specific success criteria; (i) a detailed monitoring program; (j) contingency measures should the success criteria not be met; (k) a summary of the annual reporting requirements; and (l) identification of the responsible party(ies) for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

Impact BI-8: Indirect Impacts on Special-Status Vegetation Communities and Riparian Habitats

M-BI-8a Best management practices to address erosion and excess sedimentation shall be incorporated into the project plans. The plans shall at minimum show the locations of temporary fencing, drainage inlet protection, gravel bags, fiber rolls, temporary construction access paths, and any other procedures deemed appropriate by the County.

M-BI-8b Topsoil shall be stockpiled in disturbed areas currently lacking native vegetation. Stockpile areas shall be delineated on the project plans by a qualified biologist.

M-BI-8c The changing of oil, refueling, and other actions that could result in a release of a hazardous substance shall be restricted to designated areas that are a minimum of 100 feet from any documented special-status plant populations, sensitive habitats, or drainages. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" shall be designated on construction maps. Designated fueling areas shall be demarcated in the field by berms, sandbags, or other artificial barriers designed to further prevent accidental spills. Accidental spills of hazardous substances shall be immediately contained, cleaned up, and properly disposed.

Impact BI-9: Indirect Impacts on Special-Status Vegetation Communities and Riparian Habitats (Errant Construction and Human Trampling)

M-BI-9a A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place.

M-BI-9b Prior to the onset of project activities, a qualified biologist shall flag areas to be avoided that contain sensitive biological resources, including appropriate buffers. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones.

M-BI-9c Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. Construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing to ensure that construction activity remains within the defined limits evaluated and approved of by County staff. A qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts.

M-BI-9d Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application.

M-BI-9e Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, vehicles shall use the

same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and reviewed by a qualified biologist.

Impact BI-10: Direct Impacts on Federal Wetlands

M-BI-10a Prior to conducting work in any individual work area, a biological assessment shall be conducted to inventory existing flora and faunal resources; provide a thorough assessment of rare plants and wildlife and rare natural communities that may be present on site; and inventory rare, threatened, endangered, and otherwise sensitive species in the work area(s) and within the area of potential effect.

M-BI-10b Permanent loss of riparian and wetlands habitat shall be offset with equal or better habitat function at ratios commensurate with project impacts, ranging from 1:1 to 3:1. Final mitigation ratios for specific habitat types shall be determined based on the quality and quantity of resources impacted or, for projects within the planning area of a finalized habitat conservation plan, in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that all temporary impacts on riparian habitat would be offset through the restoration of temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio.

M-BI-10c Restoration plans and revegetation construction documents needed to ensure the successful revegetation of impacted habitats shall be prepared by qualified personnel with experience in southern California ecosystems and native plant revegetation techniques. These plans shall include, at minimum, the following information: (a) the location of the mitigation site(s); (b) the plant species to be used, container sizes, and seeding rates; (c) the plant materials' sources and lead time; (d) a schematic depicting the mitigation areas; (e) a planting schedule; (f) a description of installation requirements, irrigation sources and methodology, erosion control, maintenance and monitoring requirements; (g) measures to properly control exotic vegetation on site; (h) site-specific success criteria; (i) a detailed monitoring program; (j) contingency measures should the success criteria not be met; (k) a summary of the annual reporting requirements; and (l) identification of the responsible party(ies) for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

M-BI-10d Environmental permits from the regulating resource agencies shall be required prior to initiating project activities in state and federal jurisdictional waters of the

United States, including wetlands. Such agencies may include the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Game, and California Coastal Commission.

Impact BI-11: Indirect Impacts on Federal Wetlands

M-BI-11a Best Management Practices to address erosion and excess sedimentation shall be incorporated into the project plans. At minimum, the plans shall show the locations of temporary fencing, drainage inlet protection, gravel bags, fiber rolls, temporary construction access paths, and any other procedures deemed appropriate by the County.

M-BI-11b Topsoil shall be stockpiled in disturbed areas currently lacking native vegetation. Stockpile areas shall be delineated on the project plans by a qualified biologist.

M-BI-11c The changing of oil, refueling, and other actions that could result in a release of a hazardous substance shall be restricted to designated areas that are a minimum of 100 feet from documented special-status plant populations, sensitive habitats, or drainages. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" shall be designated on construction maps. Designated fueling areas shall be demarcated in the field by berms, sandbags, or other artificial barriers designed to further prevent accidental spills. Accidental spills of hazardous substances shall be immediately contained, cleaned up, and properly disposed.

Impact BI-12: Indirect Impacts on Federal Wetlands (Errant Construction and Human Trampling)

M-BI-12a A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place.

M-BI-12b Prior to the onset of project activities, a qualified biologist shall flag areas to be avoided that contain sensitive biological resources, including appropriate buffers. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones.

M-BI-12c Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. All construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing to ensure that construction activity

remains within the defined limits evaluated and approved by County staff. A qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts.

M-BI-12d Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas will be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application.

M-BI-12e Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, all vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and shall be reviewed by a qualified biologist.

2.1.6 Conclusion

Impact BI-1, which is associated with direct permanent and temporary impacts on special-status plant species, would be reduced to below a level of significance by conducting focused surveys, avoiding habitat with the potential to support special-status plants to the extent practicable, and implementing mitigation measures to reduce all significant unavoidable impacts to below a level of significance.

Impact BI-2 refers to short-term indirect impacts on special-status plant species caused by dust, erosion, and runoff. This impact would be reduced to below a level of significance through the incorporation of BMPs into the project plans to address erosion and excess sedimentation.

Impact BI-3 refers to short-term indirect impacts on special-status plant species caused by errant construction and human trampling in proximity to proposed work areas. This impact would be reduced to below a level of significance by requiring a delineation of the work limits and adjacent areas within 100 feet of the work limits to prevent unauthorized activities in areas supporting natural habitat and requiring a qualified biologist to inspect the fencing and monitor construction activities.

Impact BI-4 refers to direct impacts on special-status wildlife species, including breeding birds and listed wildlife species, which could be directly harmed by vegetation clearing, grading, etc. This impact would be reduced to below a level of significance by conducting focused surveys for listed species and breeding birds in all work areas that support habitat for these species, restricting/phasing work to avoid the breeding season for listed species and birds protected by the federal MBTA, conducting the required consultation under the ESA (and implementing all

required mitigation measures resulting from the consultation), and educating personnel on the importance of special-status species in accordance with the ESA.

Impact BI-5, which is associated with short-term indirect impacts on breeding birds caused by construction-related noise, would be reduced to below a level of significance by maintaining an appropriate buffer, specific to the species, around active nests found until the young have fledged. If work is to occur adjacent to occupied California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher habitat, noise attenuation features would be used to reduce noise levels at the nest site, and any other measures resulting from the required ESA consultation would be implemented.

Impact BI-6 refers to impacts on special-status wildlife species caused by human trampling and unauthorized construction activities adjacent to approved construction limits. This impact would be reduced to below a level of significance by delineating the work limits and adjacent areas within 100 feet of the work limits prior to construction to prevent unauthorized activities in areas supporting natural habitat and retaining a qualified biologist to inspect the fencing and monitor construction activities.

Impact BI-7 refers to direct permanent and temporary impacts on special-status natural communities and riparian habitats caused by implementation of the VHRP-eligible projects. This impact would be reduced to below a level of significance by providing compensatory mitigation at ratios consistent with local NCCP subarea plans and/or commensurate with project impacts and habitat quality. Temporary impact areas would be restored to pre-construction contours and vegetation types. Restoration plans for both on- and offsite mitigation would be prepared by a qualified native habitat restoration specialist to address the revegetation of all permanent and temporarily disturbed areas.

Impact BI-8, which describes short-term indirect impacts on special-status natural communities and riparian habitats, would be reduced to below a level of significance by incorporating BMPs into the project plans to address erosion and excess sedimentation, locating staging and fueling areas outside of sensitive habitats, and placing stockpiles in disturbed upland areas where they cannot interfere with natural drainage patterns.

Impact BI-9 is associated with short-term indirect impacts on special-status natural communities and riparian habitats caused by errant construction and human trampling in proximity to proposed work areas. This impact would be reduced to below a level of significance by delineating the work limits and adjacent areas within 100 feet of the work limits prior to construction to prevent unauthorized activities in areas supporting natural habitat and retaining a qualified biologist to inspect the fencing and monitor construction activities.

Impact BI-10 refers to direct permanent and temporary impacts on federal wetlands and non-wetland waters. This impact would be reduced to below a level of significance by providing compensatory mitigation at ratios consistent with local NCCP subarea plans and/or commensurate with project impacts and habitat quality. Temporary impact areas would be restored to pre-construction contours and vegetation types. Restoration plans for both on- and offsite mitigation would be prepared by a qualified native habitat restoration specialist to address the revegetation of permanent and temporarily disturbed areas.

Impact BI-11, which summarizes short-term indirect impacts on federal wetlands and non-wetland waters, would be reduced to below a level of significance by incorporating BMPs into the project plans to address erosion and excess sedimentation, locating staging and fueling areas outside of sensitive jurisdictional habitats, and placing stockpiles in disturbed upland areas where they cannot interfere with natural drainage patterns.

Impact BI-12 refers to short-term indirect impacts on federal wetlands and non-wetland waters caused by errant construction and human trampling in proximity to proposed work areas. This impact would be reduced to below a level of significance by delineating the work limits and adjacent areas within 100 feet of the work limits prior to construction to prevent unauthorized activities in areas supporting natural habitat and retaining a qualified biologist to inspect the fencing and monitor construction activities.

With implementation of the mitigation measures provided above, impacts on biological resources would be mitigated to below a level of significance. No cumulative impacts related to biological resources were identified for the project.

As discussed in previous sections of this chapter, the analysis above does not assume that the County has obtained or will obtain program-level permits from the resource agencies to cover qualifying projects as discussed in Section 1.5.1. However, if the County obtains a Regional General Permit (RGP) for VHRP-eligible projects, those projects meeting the terms and conditions for use of the RGP would result in reduced impacts compared to those potentially occurring from non-RGP-eligible projects. It is anticipated that the RGP for a VHRP-eligible project would apply to projects that would: result in no more than 5,000 square feet of impacts on jurisdictional resources, not require construction/vegetation clearing during the bird-breeding season, and not result in impacts on listed species. While the final terms, conditions, and mitigation measures would be outlined in the permit(s), they would be consistent with the mitigation measures outlined above, and significant impacts would be reduced to below a level of significance.

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Table 2.1-1. Vegetation Communities in San Diego County

Wetlands	Native Uplands	Nonnative/Disturbed Uplands
Dunes/beaches/saltpans/mudflats	Valley and foothill grassland	Nonnative grassland
Riparian scrub	Chaparral	Eucalyptus woodland
Riparian woodland	Diegan coastal sage scrub	Developed
Riparian forest	Maritime succulent scrub	Ornamental
Oak riparian forest	Alluvial fan scrub	Disturbed habitat
Meadows and seeps	Oak woodland	Agriculture
Freshwater marshes	Pinyon-Juniper woodland	Orchards
Herbaceous wetlands	Coniferous forest	Row crops
Tidal marshes	Desert scrub	Field/pasture
Open water	Dry wash woodland	
Unvegetated channel	Desert dunes	
Vernal pools/seasonal wetlands	Playas/badlands/mudhill forbs	
Disturbed wetlands	Desert chaparral	
	Dry wash woodland	

Table 2.1-2. Listed Plant Species Potentially Occurring in San Diego County

Common Name	Scientific Name	Listing Status		Designated Critical Habitat
		Federal	State	
Wetlands-Associated Plant Species				
Salt marsh bird's beak	*Cordylanthus maritimus ssp. maritimus*	FE	SE	No
San Diego button celery	*Eryngium aristulatum var. parishii*	FE	SE	No
Willowy monardella	*Monardella viminea*	FE	SE	Yes
Spreading navarretia	*Navarretia fossalis*	FT	—	Yes
California orcutt grass	*Orcuttia californica*	FE	SE	No
San Diego mesa mint	*Pogogyne abramsii*	FE	SE	No
Otay Mesa mint	*Pogogyne nudiuscula*	FE	SE	No
Gambel's water cress	*Nasturtium gambelii*	FE	SE	No
Upland-Associated Plant Species				
San Diego thornmint	*Acanthomintha ilicifolia*	FT	SE	No
San Diego ambrosia	*Ambrosia pumila*	FE	—	No
Del Mar Manzanita	*Arctostaphylos glandulosa ssp. crassifolia*	FE	—	No
Coastal dunes milk-vetch	*Astragalus tener var. titi*	FE	SE	No
Encinitas baccharis	*Baccharis vanessae*	FT	SE	No
Nevin's barberry	*Berberis nevinii*	FE	SE	No
Thread-leaved brodiaea	*Brodiaea filifolia*	FT	SE	Yes
Orcutt's spineflower	*Chorizanthe orcuttiana*	FE	SE	No
Otay tarplant	*Deinandra conjugens*	FT	SE	Yes
Short-leaved dudleya	*Dudleya brevifolia*	—	SE	No
Mexican flannelbush	*Fremontodendron mexicanum*	FE	SR	No
Orcutt's hazardia	*Hazardia orcuttii*	FC	ST	No
Baja California birdbush	*Omithostaphylos oppositifolia*	—	SE	No
Gander's ragwort	*Senecio ganderi*	—	SR	No
Small-leaved rose	*Rosa minutifolia*	—	SE	No

Federal Designations:
FE: Federally listed Endangered
FT: Federally listed as Threatened
FC: Federal candidate for listing

State Designations:
SE: State-listed as Endangered
ST: State-listed as Threatened
SR: State-listed as rare

Source: EDAW 2008. Channel Maintenance Programmatic Permitting Guide.

Table 2.1-3. Listed Wildlife Species Potentially Occurring in San Diego County

Common Name	Scientific Name	Listing Status		Designated Critical Habitat
		Federal	State	
Wetlands-Associated Wildlife Species				
Arroyo toad	*Bufo californicus*	FE	CSC	Yes
Western snowy plover	*Charadrius alexandrinus*	FT	CSC	No
California black rail	*Laterallus jamaicensis coturniculus*	--	ST	No
California least tern	*Sterna antillarum browni*	FE	SE	No
Light-footed clapper rail	*Rallus longirostris levipes*	FE	SE	No
California brown pelican	*Pelecanus occidentalis californicus*	FE	SE	No
American peregrine falcon	*Falco peregrinus anatum*	--	SE	No
Southwestern willow flycatcher	*Empidonax trailli extimus*	FE	SE	Yes
Western yellow-billed cuckoo	*Coccyznus americanus occidentalis*	FC	SE	No
Belding's savannah sparrow	*Passerculus sandwichensis beldingi*	--	SE	No
Least Bell's vireo	*Vireo bellii pusillus*	FE	SE	Yes
Aquatic Species				
Tidewater goby	*Eucyclogobius newberryi*	FE	CSC	Yes
Unarmored three-spine stickleback	*Gasterosteus aculeatus williamsoni*	FE	SE	No
Southern steelhead trout	*Oncorhynchus mykiss irideus*	FE	CSC	No
San Diego fairy shrimp	*Branchinecta sandiegonensis*	FE	---	Yes
Riverside fairy shrimp	*Streptocephalus woottonii*	FE	---	Yes
Upland-Associated Wildlife Species				
Quino checkerspot butterfly	*Euphydryas editha quino*	FE	--	Yes
Coastal California gnatcatcher	*Polioptila californica californica*	FT	CSC	Yes
Stephens' kangaroo rat	*Dipodomys stephensi*	FE	ST	No
Pacific pocket mouse	*Perognathus lonimembris pacificus*	FE	CSC	No

Federal Designations:
FE: Federally listed Endangered
FT: Federally listed as Threatened
FC: Federal candidate for listing

State Designations:
SE: State-listed as Endangered
ST: State-listed as Threatened
SR: State-listed as rare
Source: EDAW 2008. Channel Maintenance Programmatic Permitting Guide.

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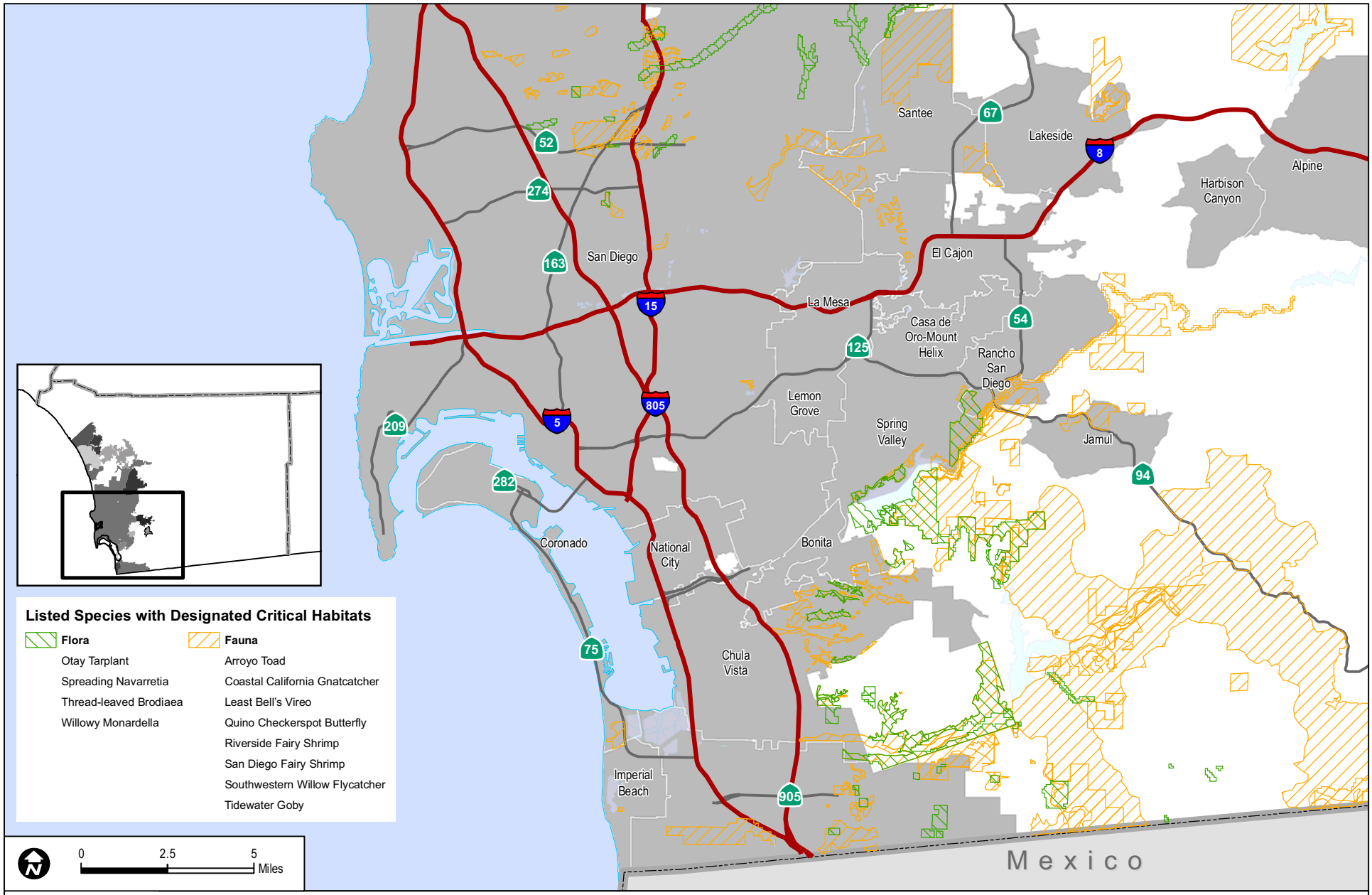


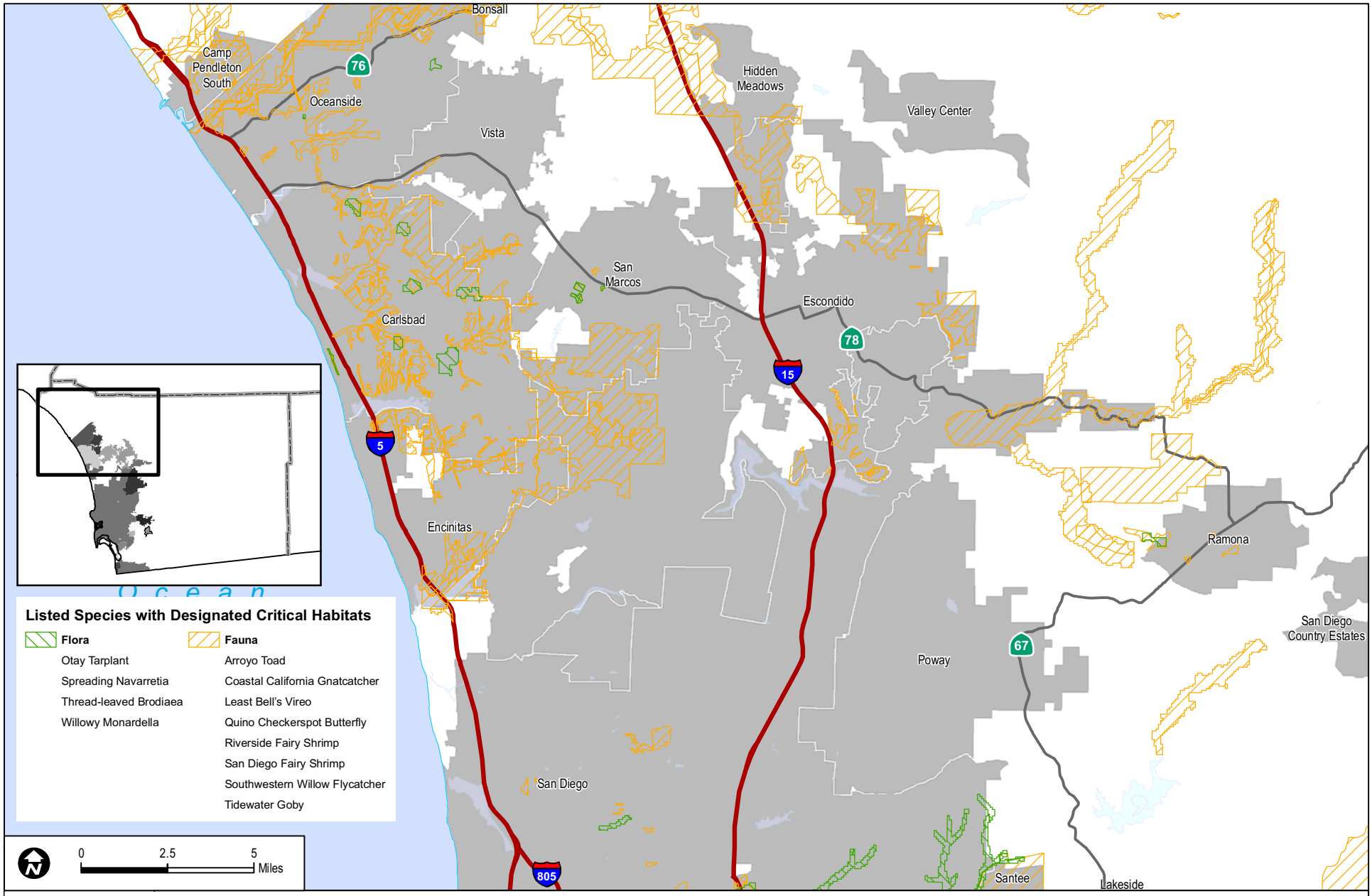
SOURCES: USFWS 2000, 2005a-h, 2007a-b, 2008; SanGIS 2008

FIGURE 2.1-1

USFWS - Designated Critical Habitat for Plants and Wildlife - Southern San Diego County

Vector Habitat Remediation Program Project

DRAFT



SOURCES: USFWS 2000, 2005a-h, 2007a-b, 2008; SanGIS 2008

FIGURE 2.1-2

USFWS - Designated Critical Habitat for Plants and Wildlife - Northen San Diego County

Vector Habitat Remediation Program Project

DRAFT

2.2 Cultural Resources

This section assesses general cultural resource conditions in San Diego County and identifies potential cultural resource and paleontology impacts that could occur as a result of implementation of VHRP-eligible projects. The information used in this analysis is general in nature and derived from the most readily available information in applicable resource and planning documents. Site-specific cultural or paleontological resource studies were not performed for the VHRP because the locations of future VHRP-eligible projects are not known at this time.

2.2.1 Existing Conditions

2.2.1.1 *Background*

Prehistory

The prehistory of the San Diego area is generally divided into three periods: Paleoindian, Archaic, and Late Prehistoric. The Paleoindian period, dating from 11,500 to 8,500 years before present (B.P.), is typified by artifact assemblages of the San Dieguito complex/tradition. Flaked stone tools, including scrapers, choppers, and large projectile points, are representative of the San Dieguito complex. Until recently, the absence of a milling station was viewed as the major difference between the Paleoindian and Archaic periods. The Archaic period, dating from 8,500 to 1,500 years B.P., saw a generalized economic focus on hunting and gathering. Lastly, the Late Prehistoric period is generally believed to have begun between 1,300 and 800 years B.P. Common artifacts of the Late Prehistoric period include small projectile points of the Cottonwood Triangular and Desert Side-notched forms and ceramics.

Historical Period

Although the earliest historical exploration of the San Diego area can be traced to the exploration of San Miguel (later named San Diego) Bay by Juan Rodriguez Cabrillo in 1542, the accepted start of the Historical period in the region is the founding of the Mission San Diego de Alcala and the Royal Presidio in 1769. The Hispanic period in California's history includes the Spanish colonial (1769–1820) and Mexican Republic (1820–1846) periods. Spanish colonial-period society was dominated by religious and military institutions, consisting of a system of missions protected by presidios or military fortifications. The Mexican Republic period was characterized by pockets of civilians residing on large ranchos or in pueblos.

As mentioned, the generally accepted beginning of the Historical period in San Diego County is 1769. In 1769, the first intensive encounter between Spanish explorers and Southern California coastal villages of Native Americans occurred, and the Mission San Diego de Alcala was

established. The Mission of San Juan Capistrano was established in 1776 and the San Luis Rey de Francia Mission in 1798.

During the Spanish colonial period, the Native American population of Southern California was decimated by the effects of missionization and the introduction of European diseases. Many members of Southern Californian Native American tribes were incorporated into the Spanish sphere of influence at an early age. Coastal tribes were heavily affected by Spanish influence due to the network of missions and presidios running from San Diego Mission de Alcala to the Mission of San Juan Capistrano. Inland tribes were also affected by the presence of Spanish missions and presidios. While a great number of Native Americans were incorporated into Spanish colonial society, many maintained their traditional customs and simply adopted the Spanish agricultural and animal husbandry practices.

Mexico won its independence from Spain in 1821 and gained control of the California territory. The Mexican Congress passed the Secularization Act in 1833, which ordered half of mission lands to be given to the Native Americans and the other half to be placed in trusts managed by an appointed administrator. Administrators routinely divided mission property under their control among friends and relatives. In 1845, Pio Pico was appointed governor of California and began to authorize land grants to give the land of Alta California to residents other than Native Americans. This resulted in political imbalance and several Native American uprisings against the Mexican rancheros. Many Native Americans left the mission society to return to their village settlements.

At the conclusion of the Mexican-American War, the signing of the Treaty of Guadalupe Hidalgo in 1848 brought forth the American period in California. Native Americans were guaranteed citizenship under the treaty, but the U.S. government did not honor the guarantee. The American period witnessed the development of San Diego County in various ways. This time period includes the rapid rise of Anglo-Victorian (Yankee) culture over the Mexican-*Californio* culture, which existed during the period of Mexican rule. This period also saw the rise of urban centers and rural communities throughout the San Diego area. The Frontier period (1845–1870) saw the San Diego region transform from a feudal-like society to an aggressive capitalistic economy. American entrepreneurs gained control of most of the large ranchos in the region and transformed San Diego into a market town dominated by merchant businessmen. From 1870–1930, urban development established the cities of San Diego, National City, and Chula Vista, while a rural society based on family-owned farms organized by rural school district communities also developed.

From 1900–1940, the military took a special interest in the San Diego Harbor area. The Army established Fort Rosecrans, a coastal defense fortification on Point Loma, during the early twentieth century. The Navy began to develop major facilities in the bay shortly after the April

1908 visit of President Theodore Roosevelt's "Great White Fleet." In 1919, the Navy decided to make San Diego Bay the home base for the Pacific Fleet. The 1920s saw a large increase in population, and development began in the Mid-City, Point Loma, Pacific Beach, and Mission Beach areas. Development stalled during the depression years of the 1930s, but World War II ushered in a period of growth, largely attributed to the rise of defense industries.

2.2.1.2 *Regulatory Environment*

In San Diego County, adverse impacts on cultural and paleontological resources are addressed primarily through CEQA, the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the County Register of Historical Resources, the County RPO, and the Conservation Element of a general plan. These and some of the other relevant regulations are summarized below.

The California Register of Historical Resources considers a cultural resource significant if it

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values; or
- Has yielded, or has the potential to yield, information important to prehistory or history (State of California 2008).

These criteria do not preclude a lead agency from determining that a resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) and 5024.1. These provisions also apply to archaeological sites.

Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the County Coroner has examined the remains (Section 7050.5b). If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours (Section 7050.5c). The NAHC will notify a Most Likely Descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 24 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

National Register of Historic Places is an authoritative guide to be used by lead agencies to identify the nation's cultural resources and indicate what properties should be considered for protection from destruction or impairment.

The Resource Protection Ordinance requires that cultural resources be evaluated as part of the County's discretionary review process; if any resources are determined significant under RPO, they must be preserved.

The Conservation Element of the San Diego County General Plan provides policies for the protection of natural resources, including cultural and paleontological resources.

The County's Grading Ordinance (Section 87.430) provides for the requirement of a paleontological monitor at the discretion of the County and the suspension of grading operation upon the discovery of fossils greater than 12 inches in any dimension.

2.2.2 Analysis of Project Effects and Determination as to Significance

The significance thresholds for cultural and paleontological resources are based specifically on criteria provided in the County's Guidelines for Determining Significance (2007f and 2007g). The County's Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and developed using best available information, with input from experts and the public. All information necessary to evaluate project impacts properly and thoroughly and determine impact significance was reviewed in preparing this PEIR. A significant impact would result if any of the following would occur:

- The project causes a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the California Environmental Quality Act Guidelines. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior's Standards.
- The project causes a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the California Environmental Quality Act Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.
- The project disturbs any human remains, including those interred outside of formal cemeteries.
- The project proposes activities or uses damaging to significant cultural resources as defined by the Resource Protection Ordinance and fails to preserve those resources.

- The project proposes activities directly or indirectly damaging to a unique paleontological resource or site. A significant impact on paleontological resources may occur as a result of the project if the project-related grading or excavation will disturb the substratum or parent material below the major soil horizons in any paleontologically sensitive area of the County, as shown on the San Diego County Paleontological Resources Potential and Sensitivity Map (Figure 2 in the County's Guidelines for Determining Significance; 2007g).

2.2.2.1 *Historical Resources*

Guidelines for the Determination of Significance

A significant impact would result if

- The project causes a substantial adverse change in the significance of a historical resource, as defined in Section 15064.5 of the California Environmental Quality Act Guidelines. This shall include the destruction, disturbance, or alteration of characteristics or elements of a resource that causes it to be significant in a manner not consistent with the Secretary of Interior's Standards.

Analysis

The location of VHRP-eligible projects is unknown at this time. While future projects may result in ground-disturbing activities, these activities would occur within established wetland areas, effluent treatment ponds, flood control facilities, and stormwater management facilities, which do not contain historical resources or structures. Therefore, implementation of the VHRP is not anticipated to result in any adverse changes to an existing historical resource. Impacts would be less than significant.

2.2.2.2 *Archaeological Resources*

Guidelines for the Determination of Significance

A significant impact would result if

- The project causes a substantial adverse change in the significance of an archaeological resource, as defined in Section 15064.5 of the California Environmental Quality Act Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.

Analysis

Since the locations of VHRP-eligible projects are unknown at this time, no record searches or surveys could be prepared as part of this PEIR. VHRP-eligible projects could potentially destroy or disturb all or portions of unknown archaeological resources during project activities that involve ground disturbance. Such impacts would be significant (Impact CR-1).

2.2.2.3 *Human Remains*

Guidelines for the Determination of Significance

A significant impact would result if

- The project disturbs any human remains, including those interred outside of formal cemeteries.

Analysis

As discussed under the analysis for archaeological resources, ground-disturbing activities would alter the landform of VHRP-eligible project sites and could potentially affect human remains. Such impacts would be significant (Impact CR-2).

2.2.2.4 *Resource Protection Ordinance*

Guidelines for the Determination of Significance

A significant impact would result if

- The project proposes activities or uses damaging to significant cultural resources as defined by the Resource Protection Ordinance and fails to preserve those resources.

The above guideline was selected because the RPO requires that cultural resources be considered when assessing environmental impacts. Any project that would have an adverse impact (direct, indirect, or cumulative) on significant cultural resources, as defined by this guideline, would be considered a significant impact. The RPO provides a possibility for an exemption to any essential facility, project, or recreational facility that includes public use, pursuant to Article V, Section 3 of the RPO, when the required findings are made by the lead agency. Projects implemented within the unincorporated portions of the County would be subject to the RPO.

Analysis

As discussed above, implementation of VHRP-eligible projects could result in significant impacts on archaeological resources. Therefore, failure of individual VHRP-eligible projects to comply with the RPO would result in a significant impact (Impact CR-3).

2.2.2.5 *Paleontological Resources*

Guidelines for the Determination of Significance

A significant impact would result if the project

- Proposes activities that are damaging, directly or indirectly, to a unique paleontological resource or site.

Analysis

Ground disturbance associated with individual VHRP-eligible projects is not anticipated to require massive earthwork that would extend beyond the modern soil horizon into areas with the potential to support unique paleontological resources or sites. Therefore, implementation of the VHRP-eligible projects would result in a less-than-significant impact on paleontological resources.

2.2.3 Cumulative Impact Analysis

According to SANDAG, the San Diego region will experience a 42% population increase over the 30-year period from 2000 to 2030 (SANDAG 2008). Local environmental regulations for the protection of unique or significant archaeological, historical, and paleontological resources, including those within San Diego County, are employed during CEQA review of discretionary projects to minimize the effects of development on cultural and paleontological resources. Nonetheless, future population growth and sprawl development could result in significant cumulative impacts on cultural and paleontological resources through earthwork, construction activities, and other human activity within San Diego County.

Because the proposed project would not result in impacts on paleontological resources, the project would not contribute to a potentially significant cumulative impact on paleontological resources in San Diego County.

Because the locations of future VHRP-eligible projects are not known at this time, a detailed analysis of the potential cumulative impacts related to cultural resources in San Diego County cannot be conducted. However, due to the nature and scale of the projects anticipated to be implemented under the VHRP (minor ground disturbance, vegetation clearing, etc., to reduce

mosquito breeding habitat); the requirement to conform to the project design features outlined in this PEIR; the requirement to comply with all applicable federal, state, and local regulations; and the requirement to implement the mitigation measures outlined in this PEIR, projects implemented under the VHRP would not have a cumulatively considerable contribution to any potentially significant impact on cultural resources that may be indentified in San Diego County.

2.2.4 Significance of Impacts Prior to Mitigation

The proposed project could result in the following substantial adverse effects on cultural resources:

CR-1 Ground disturbance associated with the implementation of Vector Habitat Remediation Program–eligible projects could destroy or disturb all or portions of an important archaeological site,

CR-2 Ground disturbance associated with the implementation of Vector Habitat Remediation Program–eligible projects could disturb human remains, and

CR-3 Failure of individual Vector Habitat Remediation Program–eligible projects to comply with the Resource Protection Ordinance could damage significant cultural resources as defined by the Resource Protection Ordinance.

2.2.5 Mitigation

The mitigation measures listed below will be implemented if a corresponding impact listed above is identified for a particular project to be constructed under the VHRP. If a specific impact is not identified for a particular project to be constructed under the VHRP, implementation of the associated mitigation measure will not be required.

M-CR-1a Individual Vector Habitat Remediation Program–eligible projects that involve ground disturbance shall retain the services of a qualified archaeologist to conduct a survey and record search of the project site prior to project implementation to determine the potential for the project to encounter unknown archaeological resources. A cultural resources report shall be prepared to discuss potential impacts associated with the proposed project and identify mitigation measures to reduce all significant impacts to below a level of significance.

M-CR-1b If the survey/record search (conducted per M-CR-1a) identifies significant archaeological resources within the impact area or suggests that archaeological resources may be encountered, all earthmoving activities shall be monitored by a

qualified archaeologist. However, if no significant resources are identified, monitoring shall not be required.

M-CR-2 If human remains are discovered during the monitoring of earthmoving activities, the provisions of California Public Resources Code Section 5097 and Health and Safety Code Section 7050.5 shall be implemented. Initially, the remains shall be stabilized and protected and the County Coroner shall be contacted. If the remains are determined to be Native American in origin, the Native American Heritage Commission shall be notified, which shall identify the Most Likely Descendant. Consultation with the Most Likely Descendant regarding disposition of the remains shall be conducted by the lead agency under the California Environmental Quality Act for the individual project to be implemented under the Vector Habitat Remediation Program.

M-CR-3 All projects implemented under the Vector Habitat Remediation Program that are subject to the Resource Protection Ordinance shall be required to be in compliance with the provisions in the Resource Protection Ordinance related to the protection of significant cultural resources.

2.2.6 Conclusion

Implementation of the VHRP would reduce mosquito breeding habitat through wetland and water quality design, water management, and vegetation manipulation. VHRP-eligible projects may involve ground disturbance (e.g., minor grading and dredging activities), which has the potential to result in significant impacts on cultural resources. The implementation of mitigation measure M-CR-1a would require a survey and record search to be conducted by a qualified archaeologist for individual projects that involve ground-disturbing activities and the identification and implementation of mitigation measures to reduce all identified significant impacts on cultural resources to below a level of significance. Mitigation measure M-CR-1b would require an archaeological monitor during all ground-disturbing activities in areas identified to support or to have the potential to support archaeological resources. Mitigation measure M-CR-2 would ensure that human remains identified during the required monitoring would be handled according to applicable regulations. Finally, mitigation measure M-CR-3 would ensure compliance with the RPO for those projects subject to this County ordinance. Implementation of the mitigation measures would reduce all potentially significant impacts on cultural resources to below a level of significance.

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2.3 Hydrology and Water Quality

This section assesses general surface water hydrology and water quality conditions in San Diego County and identifies potential hydrology and water quality impacts that could occur as a result of implementation of VHRP-eligible projects. The information used in this analysis is general in nature and derived from the most readily available information in applicable resource and planning documents. Site-specific hydrology reports or drainage studies were not performed for the VHRP because the future locations of potential VHRP-eligible project sites are unknown at this time.

The general surface water hydrology and water quality conditions of the project area discussed below are based on a review of the *Water Quality Control Plan for the San Diego Basin* (Basin Plan; RWQCB 1994), applicable general plans, and the City and County of San Diego online geographic database (SanGIS 2008).

2.3.1 Existing Conditions

Mosquito reproduction is largely dependent on areas where still, shallow water persists for more than 72 hours. Areas within the County that contain or have the potential to support mosquito-breeding habitat (i.e., still, shallow water and/or stagnant shallow pools) would provide the setting for future projects that are implemented under the VHRP and could include both natural areas (e.g., lakes, ponds, streams, seasonal wetlands, etc.) and artificially created/developed areas (e.g., stormwater detention basins, flood control channels, etc.).

The basic concepts of the VHRP are to reduce mosquito breeding habitat through wetland design strategies, water management activities, and vegetation manipulation. Eliminating or reducing the availability of mosquito-breeding habitat has the potential to affect hydrology and water quality.

2.3.1.1 *Environmental Setting*

Climate

San Diego County's climate is characterized by warm, dry summers and mild, wet winters. The average rainfall is about 10 to 13 inches per year, most of which falls between November and February. The average mean temperature for the area is approximately 65°F in the coastal zone and 57°F in the surrounding foothills (RWQCB 1994).

Physiography

The San Diego region occurs within the Peninsula Ranges physiographic province of California. The San Diego region is divided into a coastal plain, a central mountain-valley area, and an eastern mountain valley area (RWQCB 1994). Urbanized areas within San Diego County are located mainly within the coastal plain and, to a lesser extent, the central mountain-valley area. The coastal plain, which extends approximately 10 miles inland from the sea, is deeply dissected by streams draining to the sea. VHRP-eligible project sites will likely include mosquito-breeding habitat within streams and their tributaries and within irrigated areas that flow toward these water bodies in the coastal plain.

Soil Types

Soils within the County are classified by the Natural Resources Conservation Service into four hydrologic soil groups (A, B, C, and D) based on the soil's runoff potential. Group A generally has the least runoff potential and group D the greatest. Soils with low runoff and low infiltration have the potential to form standing water that would be suitable for mosquito-breeding habitat (USDA 1973).

Hydrology

The County is located in the jurisdiction for the RWQCB of the San Diego Basin, Region 9, and the Colorado River Basin, Region 7. The San Diego Basin encompasses approximately 3,900 square miles, including most of San Diego County and portions of southwestern Riverside and Orange counties. A portion of the County is located in the Colorado River Basin, which forms a water divide with the San Diego Basin and drains toward the east. The San Diego region is divided into 11 hydrologic units, as designated in the 1994 RWQCB Basin Plan. The Colorado River region is divided into 28 hydrologic units (five are located in the County), as designated in the *Water Quality Control Plan for the Colorado River Basin* (RWQCB 1993). The hydrologic units in the County are listed in *Table 2.3-1, Hydrologic Units of the San Diego and Colorado River Regions,* and depicted in *Figure 2.3-1, San Diego County Hydrologic Units.*

All of the hydrologic units located in San Diego County have mosquito-breeding habitat; however, several of the hydrologic units are predominantly composed of military or tribal lands that are not covered under the VHRP.

Floodplain

Flooding is a general or temporary condition of partial or complete inundation of normally dry land areas. Flooding is commonly associated with the overflow of natural rivers or streams, but it can also occur near stormwater diversion facilities or in low-lying areas not designed to carry water at any time (County of San Diego 2007b). Several rivers and streams flow through the County (*Figure 2.3-2, San Diego County Rivers and Floodplains*). The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) identify flood zones and areas that are susceptible to 100- and 500-year floods. Typically, flood zones are used to require protection of development within the 100-year flood zone; however, in the case of mosquitoes, flood zones are ideal breeding grounds. Many flood zones in San Diego County are choked with invasive plant species that prohibit the natural flow of water, thereby creating shallow pools that are ideal for mosquito reproduction. Flood zones in San Diego County are depicted in *Figure 2.3-2*.

Groundwater

The American Geological Institute (AGI) defines a groundwater basin as a hydrogeologic unit containing one large aquifer as well as several connected and interrelated aquifers that has reasonably well-defined boundaries and more or less definite areas of recharge and discharge (AGI 1977). All major watersheds in the San Diego region contain groundwater basins. *Figure 2.3-3, San Diego County Alluvial Groundwater Aquifers*, depicts the major alluvial aquifers located in San Diego County.

Groundwater that discharges to the surface as overland flow has the potential to create conditions suitable for mosquito-breeding habitat. Typically, groundwater discharged to the surface will flow toward streams; however, localized stagnant shallow pools of water fed by groundwater could potentially exist in the County.

2.3.1.2 *Regulatory Environment*

The following section provides background for some of the water quality regulations relevant to VHRP-eligible project sites.

Federal Water Pollution Control Act (Clean Water Act)

Increasing public awareness and concern for controlling water pollution led to enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as the Clean Water Act (CWA). The CWA established basic guidelines for regulating discharges of pollutants into the waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of

water resources, and ensure implementation of the CWA (U.S. Government Code [USC], title 33, sections 1251 et seq.) in the following ways:

- ***Section 401.*** Section 401 requires an applicant for a federal permit, such as for the construction or operation of a facility that may result in the discharge of a pollutant, to obtain certification of those activities from the state in which the discharge originates. This process is known as Water Quality Certification. For projects in San Diego County occurring in one basin, the RWQCB issues the Water Quality Certifications; however, certification is issued by the State Water Resources Control Board (SWRCB) when a project spans more than one basin.
- ***Section 402.*** Section 402 established NPDES to control water pollution by regulating point sources that discharge pollutants into waters of the United States. In the State of California, the EPA has authorized the SWRCB permitting authority to implement the NPDES program. In general, the SWRCB issues two baseline general permits: one for industrial discharges and one for construction activities. The Phase II Rule, which became final on December 8, 1999, expanded the existing NPDES program to address stormwater discharges from construction sites that disturb land equal to or greater than 1 acre.
- ***Section 404.*** Section 404 established a permitting program to regulate the discharge of dredged or filled material into waters of the United States. The definition of waters of the United States includes wetlands adjacent to national waters. This permitting program is administered by ACOE and enforced by EPA.
- ***Section 303(d).*** Under Section 303(d), the SWRCB is required to develop a list of water-quality-limited segments for jurisdictional waters of the United States. The RWQCBs are responsible for establishing priority rankings and developing action plans, referred to as total maximum daily loads (TMDLs), to improve water quality of water bodies included in the 303(d) list. The most recent 303(d) list approved by EPA is from 2006. The list includes pollutants causing impairment to receiving waters or, in some cases, the condition leading to impairment.

303(d) List of Water-Quality-Limited Segments

The 2006 CWA 303(d) list of water-quality-limited segments classifies the impaired water bodies located in the County. The impaired water bodies are depicted in *Figure 2.3-4, Clean Water Act 303(d) List of Water-Quality-Limited Segments – San Diego Region.* The complete 2006 EPA-approved list for the San Diego region is available from the San Diego RWQCB at the following web address:

http://www.swrcb.ca.gov/rwqcb9/water_issues/programs/303d_list/index.shtml.

Total Maximum Daily Loads

The purpose of a TMDL is to attain water quality objectives (WQOs) and restore beneficial uses for impaired water bodies under Section 303(d) of the CWA. TMDLs represent a strategy for meeting WQOs by allocating quantitative limits for point and non-point pollution sources. A TMDL is the maximum amount of pollutant of concern that the water body can receive and still attain WQOs.

National Pollutant Discharge Elimination System

In 1990, EPA promulgated rules establishing Phase I of the NPDES stormwater program for categories of stormwater discharge, including "medium" and "large" municipal separate storm sewer systems (MS4s), which generally serve populations of 100,000 or more. In 1999, EPA promulgated rules establishing Phase II of the NPDES stormwater program for categories of stormwater discharge not covered by Phase I, including "small" MS4s, such as small communities.

The RWQCB issued the municipal stormwater NPDES permit (Municipal Permit) (Order No. R9-2007-0001, NPDES No. CAS0108758) to the County of San Diego, the Port of San Diego, the County Regional Airport Authority, the City of San Diego, and 17 other cities (called co-permittees or dischargers by owning or operating an MS4) on January 24, 2007. The Municipal Permit requires each co-permittee to adopt its own local Standard Urban Stormwater Mitigation Plan (SUSMP) and ordinances consistent with the RWQCB-approved Model SUSMP. The SUSMP requires the development and implementation of BMPs in development planning and construction of private and public development projects. Development projects are also required to include BMPs to reduce pollutant discharges from project sites in the permanent designs. BMPs associated with the final design are described in the Model SUSMP. As part of Phase II of the Municipal Permit, the SWRCB adopted Order No. 2003-0005-DWR (General Permit No. CAS000004) for small MS4s, which requires these MS4s to develop and implement a Stormwater Management Plan (SWMP) to reduce the discharge of pollutants to the maximum extent possible (MEP). The SWMP describes potential construction and post-construction pollutants and identifies BMPs to protect water resources. The RWQCB requires the owners or operators of these MS4s in watersheds subject to TMDLs to submit Notices of Intent to comply with this order.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (the Act) (California Water Code [CWC], Chapter 7, Sections 13000 et seq.) is directed primarily toward the control of water quality. The Act establishes the SWRCB and its nine RWQCBs as the principal state agencies responsible for

control of water quality. As such, each RWQCB is required to formulate and adopt a water quality control plan that designates beneficial uses and establishes WQOs to protect these beneficial uses.

San Diego Regional Water Quality Control Board's Basin Plan

The San Diego RWQCB's Basin Plan was approved by the SWRCB in 1994 and subsequently revised in 1998 and 2004. In addition, the Basin Plan has been amended by the RWQCB. The RWQCB designates beneficial uses in the Basin Plan under CWC 13240. Beneficial uses are defined as the uses of water necessary for the survival or wellbeing of man, plants, and wildlife. Designated beneficial uses in inland surface waters, coastal waters, and groundwaters in San Diego County are defined in *Table 2.3-2, State Water Resources Control Board List of Beneficial Uses.*

California Fish and Game Code

Sections 1601–1603 of the California Fish and Game Code require an agreement between CDFG and a public agency proposing to substantially divert or obstruct the natural flow or affect changes to the bed, channel, or bank of any river, stream, or lake. The agreement, called a Streambed Alteration Agreement, is designed to protect the fish and wildlife values of a river, lake, or stream.

County of San Diego Resource Protection Ordinance

The RPO prohibits development of permanent structures for human habitation or as a place of work in a floodway. Uses permitted in a floodway pursuant to Article IV, Section 3, of this ordinance include agricultural, recreational, and other such low-intensity uses, provided, however, that no use shall be permitted that will substantially harm the environmental values of a particular floodway area. Additionally, Article IV, Section 4, of the RPO allows uses permitted by zoning and those that are allowable in the floodway in the floodplain fringe when the specific criteria are met.

County of San Diego Grading Ordinance

The revised grading ordinance was adopted by the board of supervisors and became effective on April 23, 2004. The purpose of the ordinance is to combine regulations affecting the grading and clearing of land and activities affecting watercourses within unincorporated areas of the County. Chapter 6 (Sections 87.601–87.608) of the ordinance covers watercourses and is intended to protect persons and property against flood hazards by identifying prohibited acts in watercourses and acts prohibited unless a permit is obtained.

2.3.2 Analysis of Project Effects and Determination as to Significance

The following significance thresholds for hydrology, surface water quality, and groundwater are based on the criteria provided in the County's Guidelines for Determining Significance (County of San Diego 2007a, 2007b, 2007c). The County's Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and developed using best available information, with input from experts and the public. All information necessary to evaluate project impacts properly and thoroughly and determine impact significance was reviewed in preparation of this PEIR. A significant impact would result if any of the follow would occur:

- The project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site.
- The project would increase water surface elevation in a watercourse with a watershed equal to or greater than 1 square mile by 1 foot or more; in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River, and Otay River, by 0.2 foot or more.
- The project would result in increased velocities and peak flow rates for flows exiting the project site, which would cause flooding downstream or exceed the stormwater drainage capacity of the system serving the site.
- The project would result in housing, habitable structures, or unanchored impediments being placed in a 100-year floodplain area or other special flood hazard area, as shown on a Flood Insurance Rate Map, a County floodplain map, or a County alluvial fan map, which would subsequently endanger health, safety, and property due to flooding.
- The project would place structures within a 100-year flood hazard zone or alter the floodway in a manner that would redirect or impede flows, resulting in any of the following:
    - Alter the Lines of Inundation, resulting in the placement of housing in a 100-year flood hazard zone; or
    - Increase water surface elevation in a watercourse with a watershed equal to or greater than 1 square mile by 1 foot or more; in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River, and Otay River, by 0.2 foot or more.
- The project is a development project listed in the County Code of Regulatory Ordinances, Section 67.804(g), as amended, that would not comply with the standards set forth in the County Watershed Protection Ordinance or the Additional Requirements for Land Disturbance Activities set forth in the County Code of Regulatory Ordinances, Section 67.

- The project would drain to a tributary of an impaired water body listed on the Clean Water Act 303(d) list and contribute substantial additional pollutant(s) for which the receiving water body is already impaired.
- The project would drain to a tributary of a drinking water reservoir and contribute substantially more pollutant(s) than would normally run off from the project site under natural conditions.
- The project would contribute pollution in excess of that allowed by applicable state or local water quality objectives or cause or contribute to the degradation of beneficial uses.
- The project would not conform to applicable federal, state, or local "clean water" statutes or regulations, including, but not limited to, the Clean Water Act, Porter-Cologne Water Quality Control Act, and the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance.
- The project would cause or contribute to an exceedance of applicable state or local groundwater receiving water quality objectives or degradation of beneficial uses.
- The project would substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table.

2.3.2.1 *Hydrology*

Guidelines for the Determination of Significance

A significant impact would result if

- The project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site.
- The project would increase water surface elevation in a watercourse with a watershed equal or greater than 1 square mile by 1 foot or more; in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River, and Otay River, by 0.2 foot or more.
- The project would result in increased velocities and peak flow rates for flows exiting the project site, which would cause flooding downstream or exceed the stormwater drainage capacity of the system serving the site.
- The project would result in housing, habitable structures, or unanchored impediments being placed in a 100-year floodplain area or other special flood hazard area, as shown on a Flood Insurance Rate Map, a County floodplain map, or a County alluvial fan map, which would subsequently endanger health, safety, and property due to flooding.

- The project would place structures within a 100-year flood hazard zone or alter the floodway in a manner that would redirect or impede flows, resulting in any of the following:
    - Alter the Lines of Inundation, resulting in the placement of housing in a 100-year flood hazard zone; or
    - Increase water surface elevation in a watercourse with a watershed equal to or greater than 1 square mile by 1 foot or more; in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River, and Otay River, by 0.2 foot or more.

Analysis

The VHRP would provide funding to VHRP-eligible projects that focus on designing, modifying, and maintaining wetlands and stormwater facilities. Depending on the location and conditions of the project site, adherence to the guidelines for VHRP key concepts, including wetland and water quality treatment design and vegetation manipulation, may result in adverse effects on existing drainage patterns in a manner that would result in a significant impact related to substantial erosion or siltation on or off site (Impact HY-1).

The modification and maintenance measures designed to achieve a hydrologic regime to eliminate and/or reduce mosquito-breeding habitat would potentially increase water surface elevations in a watercourse within a watershed equal or greater than 1 square mile by 0.2 to 1 foot or more in height. Therefore, this would result in a significant impact on hydrology (Impact HY-2).

Alterations of natural drainage patterns by modifying landforms that control the conveyance of surface water can increase the potential for flooding by reducing the capacity of the watercourse and potentially increasing velocities and peak flow rates. Grading or other modifications, including directly altering the course of a stream or river by excavation or embankment, can increase velocities for floodwaters, which increases the potential for flooding downstream of the modification. A reduction in the capacity of the watercourse can increase the potential for flooding at the site of the modification as well as upstream from the activity (County of San Diego 2007b). This would result in a significant impact from flooding (Impact HY-3).

The proposed project does not involve construction of housing, habitable structures, or unanchored impediments to flow; therefore, no impacts associated with the placement of housing within a 100-year-flood zone would occur.

To implement long-term solutions to eliminate mosquito-breeding habitat, the VHRP proposes to focus on designing, modifying, and maintaining wetlands and stormwater facilities. These actions would increase water flows and natural tidal flushing and thereby restore the natural

hydrologic regime of streams and wetlands. Therefore, it is not anticipated that future projects would result in an increase in surface water elevations that would cause a significant impact on the capacity of an existing flood zone. Impacts would be less than significant.

2.3.2.2 *Water Quality*

Guidelines for the Determination of Significance

A significant impact would result if

- The project is a development project listed in the County Code of Regulatory Ordinances, Section 67.804(g), as amended, that would not comply with the standards set forth in the County Watershed Protection Ordinance or the Additional Requirements for Land Disturbance Activities set forth in the County Code of Regulatory Ordinances, Section 67.
- The project would drain to a tributary of an impaired water body listed on the Clean Water Act 303(d) list and contribute substantial additional pollutant(s) for which the receiving water body is already impaired.
- The project would drain to a tributary of a drinking water reservoir and contribute substantially more pollutant(s) than would normally run off from the project site under natural conditions.
- The project would contribute pollution in excess of that allowed by applicable state or local water quality objectives or cause or contribute to the degradation of beneficial uses.
- The project would not conform to applicable federal, state, or local "clean water" statutes or regulations, including, but not limited to, the Clean Water Act, Porter-Cologne Water Quality Control Act, and the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance.

Analysis

The VHRP would provide funding to VHRP-eligible projects that focus on designing, modifying, and maintaining wetlands and stormwater facilities. Depending on the location and conditions of the project site, adherence to the guidelines for VHRP key concepts, including wetland and water quality treatment design and vegetation manipulation, may result in adverse effects.

All VHRP-eligible project sites would be designed and constructed according to the applicable standards presented in the County Watershed Protection Ordinance or the Additional Requirements for Land Use Disturbance Activities. This includes preparation of a SWMP and applicable BMPs. Conformance with the listed requirements would ensure that significant impacts on water quality would not result.

Project sites would be located throughout the County; therefore, the potential exists for an individual project to drain to a water body listed on the CWA 303(d) list. Depending on the level of water body impairment, additional pollutants may be introduced from projects implemented under the VHRP and may result in adverse effects on water quality, water quality standards, and waste discharge requirements. This would result in a significant water quality impact (Impact HY-4).

Project sites would be located throughout the County; therefore, the potential exists for an individual project to drain to a tributary of a drinking water reservoir. Additional pollutants may be generated during the modification and maintenance of wetlands and stormwater facilities. These impacts would be avoided by compliance with applicable regulations, including, but not limited to, a Stormwater Pollution Prevention Plan (SWPPP). Given the nature and scale of anticipated projects, they would not be expected to generate additional pollutants, more than what would normally run off under natural conditions, and would not result in a significant impact on water quality. All VHRP-eligible projects would be required to adhere to the key concepts and design features discussed in this PEIR. In accordance with the VHRP and the design features discussed in this PEIR, BMPs would be required to be implemented to ensure that maintenance activities, such as the removal of vegetation and sediment from existing and future stormwater facilities, would not result in significant impacts on water quality.

Water quality objectives are derived from the Basin Plan and are generally specific to each watershed or subwatershed area. Because projects that focus on designing, modifying, or maintaining wetlands and stormwater facilities would be located throughout the County, there is the potential for projects to contribute pollution in excess of that allowed by applicable state or local water quality objectives or cause or contribute to the degradation of beneficial uses. This would result in a significant water quality impact (Impact HY-5).

The key concepts of the VHRP are to reduce mosquito breeding habitat through wetland design strategies, water management activities, and vegetation manipulation. Because various projects implemented under the VHRP are expected to be located in jurisdictional areas, permits may be required to obtain coverage under Sections 401, 402, and 404 of the CWA. Additional permits pertaining to hydrology and water quality include the 1602 Streambed Alteration Agreement and the General Construction Stormwater Permit. In accordance with the VHRP and its associated design features (listed in *Chapter 7*), all projects would be required to be designed, constructed, and maintained according to federal, state, and local regulations.

2.3.2.3 Groundwater

Guidelines for the Determination of Significance

A significant impact would result if the project would

- Cause or contribute to an exceedance of applicable state or local groundwater receiving water quality objectives or degradation or beneficial uses, or
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table.

Analysis

VHRP-eligible projects would generally consist of actions that result in vegetation and/or soil removal to maximize open water areas, restore the natural flow, or provide circulation to eliminate stagnant water. Such activities would not rely on groundwater supplies and would not result in a decrease in impervious surfaces. Implementation of the VHRP would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table. Impacts would be less than significant.

2.3.3 Cumulative Impact Analysis

The cumulative project study area for the proposed project is the San Diego region. According to SANDAG, the San Diego region will experience a 42% population increase over the 30-year period from 2000 to 2030 (SANDAG 2008). Local environmental regulations protecting water quality and hydrology, including resources within San Diego County, are employed during CEQA review of discretionary projects to minimize the effects of development on hydrology and water quality. Nonetheless, future population growth and sprawl development could result in significant cumulative impacts on hydrology and water quality through earthwork, associated sedimentation and erosion, and other human activity within San Diego County.

Because the locations of future VHRP-eligible projects are not known at this time, a detailed analysis of the potential cumulative impacts related to hydrology and water quality in San Diego County cannot be conducted. However, due to the nature and scale of the projects anticipated to be implemented under the VHRP (minor ground disturbance, vegetation clearing, etc., to reduce mosquito breeding habitat); the requirement to conform to the project design features outlined in this PEIR; the requirement to comply with all applicable federal, state, and local regulations; and the requirement to implement the mitigation measures outlined in this PEIR, projects implemented under the VHRP would not have a cumulatively considerable contribution to any potentially significant impact on hydrology or water quality that may be indentified in San Diego County.

2.3.4 Significance of Impacts Prior to Mitigation

As identified in Section 2.2.3, the implementation of the proposed project has the potential to result in direct impacts on (1) water quality, (2) waste discharge requirements, (3) drainage alteration, and (4) flooding (as identified in Impacts HY-1 through HY-5). Future projects implemented under the VHRP will be required to address construction and post-construction water runoff individually. Given current regulations, projects would be constructed and managed in conformance with regional requirements, which typically require acquisition of discharge permits and the use of BMPs to limit erosion, control sedimentation, and reduce pollutants in runoff. Project sites that disturb more than 1 acre of land will be required to prepare a SWPPP in accordance with NPDES under the CWA. These SWPPPs will ensure that adequate BMPs are used for each project to minimize water quality impacts. If the County obtains a RGP for VHRP-eligible projects, those projects meeting the terms and conditions for use of the RGP would result in reduced impacts compared with those potentially occurring from non-RGP-eligible projects. Maintenance projects may be covered by the proposed RGP, which would include the applicable BMPs required for projects that would result in minimal impacts on hydrology and water quality. For all other projects, Impacts HY-1 through HY-5 have the potential to occur.

The proposed project could result in the following substantial adverse effects on hydrology:

HY-1 Implementation of the Vector Habitat Remediation Program could substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion, siltation, or hydromodification impacts on or off site.

HY-2 Implementation of the Vector Habitat Remediation Program could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the flow rate or amount (volume) of surface runoff in a manner that would result in flooding on or off site.

HY-3 Implementation of the Vector Habitat Remediation Program could create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

The proposed project could result in the following substantial adverse effects on water quality:

HY-4 Implementation of the Vector Habitat Remediation Program could violate water quality standards or waste discharge requirements.

HY-5 Implementation of the Vector Habitat Remediation Program could contribute pollution in excess of that allowed by applicable state or local water quality objectives or cause or contribute to the degradation of beneficial uses.

2.3.5 Mitigation

The mitigation measures listed below would be implemented if the corresponding impact listed above is identified for a particular project to be constructed under the VHRP. If a specific impact is not identified for a particular project to be constructed under the VHRP, implementation of the associated mitigation measure will not be required.

The following mitigation measures are proposed to reduce potentially significant impacts:

M-HY-1 A drainage study shall be required for individual sites that will potentially affect drainage patterns (as determined during the required California Environmental Quality Act review of individual projects to be implemented under the Vector Habitat Remediation Program). The drainage study shall be performed according to standards in the County Drainage Design Manual and the Watershed Protection Ordinance. The drainage study shall identify and require mitigation measures to reduce all significant impacts to below a level of significance.

M-HY-2 If the future individual Vector Habitat Remediation Program–eligible projects have the potential to increase the flow rate or alter the existing drainage pattern (as determined during the required California Environmental Quality Act review of individual projects to be implemented under the Vector Habitat Remediation Program), a hydrology/drainage study shall be required for these individual sites to determine the pre- and post-construction peak runoff flow rates, durations, and velocities exiting the project site as well as the capacity of the existing drainage facility and potential downstream impacts. The hydrology/drainage study shall identify and require mitigation measures to reduce all significant impacts to below a level of significance.

M-HY-3 If future Vector Habitat Remediation Program–eligible projects have the potential to increase pollutants of concern, a hydrology/drainage study, including a water quality analysis of potential pollutants of concern, shall be required. The hydrology/drainage and water quality study shall identify mitigation measures to reduce all significant impacts to below a level of significance.

M-HY-4 Project sites that disturb more than 1 acre of land shall be required to prepare a Stormwater Pollution Prevention Plan per National Pollutant Discharge Elimination System under the Clean Water Act. These Stormwater Pollution Prevention Plans

shall ensure that adequate best management practices are used for each of the projects to reduce water quality impacts to below a level of significance. Given current regulations, projects shall be constructed and managed in accordance with regional requirements, which typically require acquisition of discharge permits and the use of best management practices to limit erosion, control sedimentation, and reduce pollutants in runoff.

M-HY-5 A hydrology and water quality study shall be required for individual Vector Habitat Remediation Program-eligible projects that could potentially contribute pollution in excess of applicable laws. If water quality pollutants are identified, a combination of construction, site design, source control, and treatment control best management practices shall be implemented to reduce all impacts on water quality to below a level of significance.

2.3.6 Conclusion

Implementation of mitigation measure M-HY-1 would reduce potential impacts that would result in substantial erosion or siltation on or off site to below a level of significance. A drainage analysis would be prepared if required by local ordinance(s) or individual projects identified as potentially resulting in impacts related to substantial erosion and siltation. The analysis would require design considerations and BMPs to mitigate impacts.

Implementation of mitigation measure M-HY-2 would reduce potential impacts that would result in a substantial increase in the flow rate or amount (volume) of surface runoff and flooding on or off site to below a level of significance. A hydrology/drainage study would be prepared if required by local ordinance(s) or individual projects that may substantially increase flow rate or volume of surface runoff. The study would require design considerations and BMPs to mitigate impacts.

Implementation of mitigation measure M-HY-3 would reduce potential impacts that would contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff to below a level of significance. A hydrology/drainage study, including a water quality analysis of potential pollutants of concern, would be prepared if required by local ordinance(s) or individual projects that may contribute runoff that would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The study would require design considerations, BMPs, and treatment control technologies to mitigate impacts.

Implementation of mitigation measure M-HY-4 would reduce potential impacts that would violate water quality standards or waste discharge requirements to below a level of significance.

A SWPPP would be prepared if required by local ordinance(s) or individual projects identified as potentially resulting in impacts. SWPPPs would ensure that adequate BMPs are used for each of the projects to mitigate impacts.

Implementation of mitigation measure M-HY-5 would reduce potential impacts that would contribute pollution in excess of that allowed by applicable state or local water quality objectives or cause or contribute to the degradation of beneficial uses to below a level of significance. A hydrology and water quality evaluation would be prepared for individual projects identified to result in potential impacts that would contribute pollution in excess of that allowed by applicable state or local water quality objectives or cause or contribute to the degradation of beneficial uses. The water quality evaluation would ensure that adequate construction, site design, source control, and treatment control BMPs are used to mitigate impacts.

With implementation of these mitigation measures, impacts on hydrology and water quality would be mitigated to below a level of significance. No cumulative impacts related to hydrology or water quality were identified for the project.

This analysis does not assume that the County has obtained or will obtain program-level permits from the resource agencies to cover qualifying projects, as discussed in Section 1.5.1, Matrix of Project Approvals/Permits. However, if the County obtains an RGP for VHRP-eligible projects, those projects meeting the terms and conditions for use of the RGP would result in reduced impacts compared with those potentially occurring from non-RGP-eligible projects. It is anticipated that the RGP for VHRP-eligible projects would apply to projects that would result in no more than 5,000 square feet of impacts on jurisdictional resources, not require construction/vegetation clearing during the bird-breeding season, and not result in impacts on listed species. While the final terms, conditions, and mitigation measures would be outlined in the permit(s), they would be consistent with the mitigation measures outlined herein, and impacts would be reduced to below a level of significance.

Table 2.3-1. Hydrologic Units of the San Diego and Colorado River Regions

Basin #	Hydrologic Unit	County	Size (square miles)
901.00	San Juan	Northern San Diego, Riverside, and Orange	500
902.00	Santa Margarita	Northern San Diego and southwestern Riverside	750
903.00	San Luis Rey	Northern San Diego	565
904.00	Carlsbad	Western San Diego	210
905.00	San Dieguito	Central San Diego	350
906.00	Penasquitos	San Diego	170
907.00	San Diego River	San Diego	440
908.00	Pueblo San Diego	San Diego	60
909.00	Sweetwater	Southern San Diego	230
910.00	Otay	Southern San Diego	160
911.00	Tijuana	Southern San Diego and Mexico	1,750 (470 in U.S.)
719.00	Whitewater	Riverside and eastern San Diego	1,854
720.00	Clark	Riverside and eastern San Diego	145
721.00	West Salton	Imperial, Riverside, and eastern San Diego	188
722.00	Anza Borego	Imperial and eastern San Diego	1,000
723.00	Imperial	Imperial and eastern San Diego	2,271

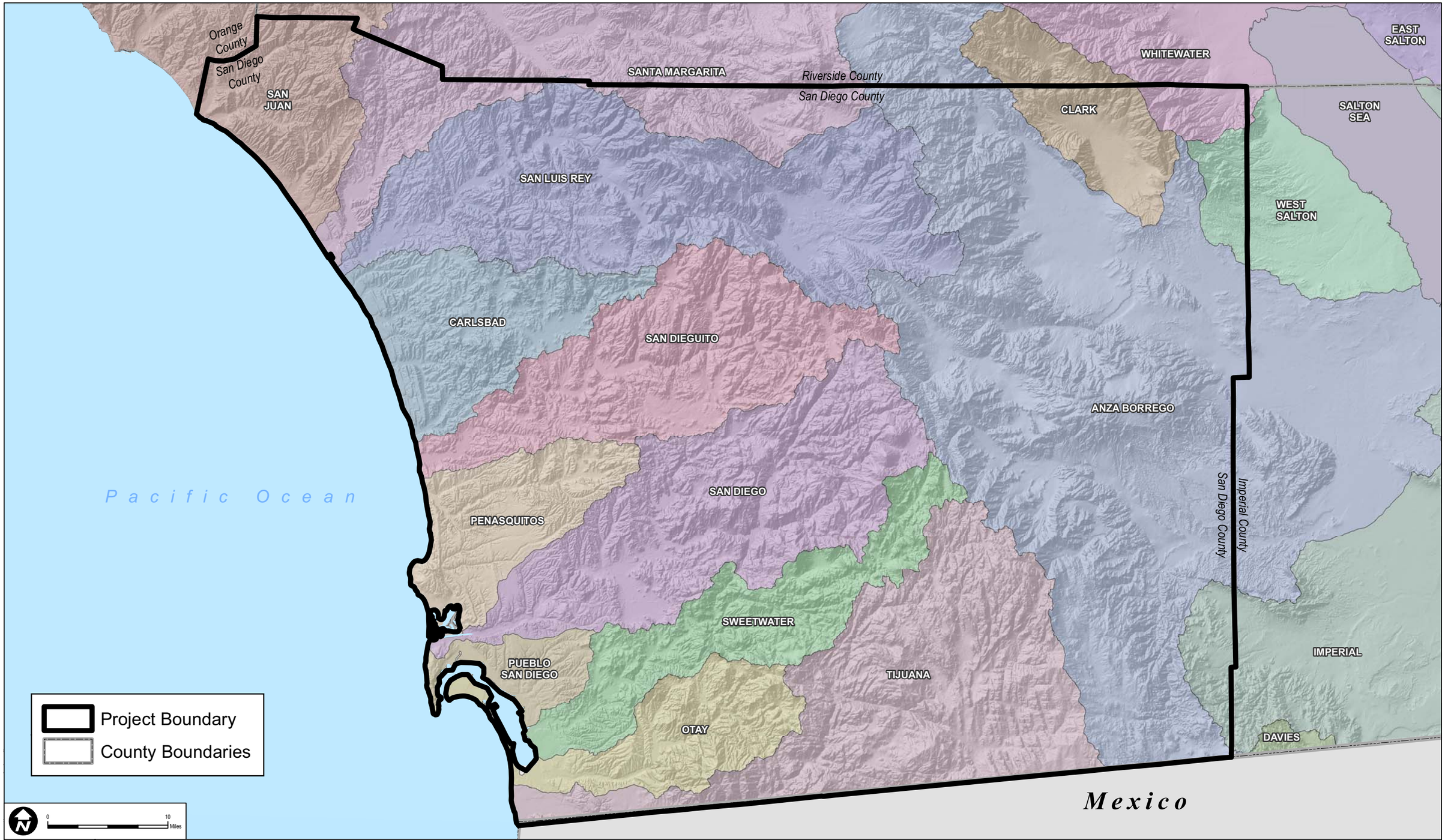
Source: Basin Plans for Colorado and San Diego Rivers (RWQCB 1993, 1994).

Table 2.3-2. State Water Resources Control Board's List of Beneficial Uses

MUN – Municipal and Domestic Supply	Uses of water for community, military, or individual water supply systems, including, but not limited to, drinking water supply.
AGR – Agricultural Supply	Uses of water for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.
IND – Industrial Services Supply	Uses of water for industrial activities that do not depend primarily on water quality, including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well repressurization.
PROC – Industrial Process Supply	Uses of water for industrial activities that depend primarily on water quality.
FRSH – Freshwater Replenishment	Uses of water for natural or artificial maintenance of surface water quantity or quality (e.g., salinity).
GWR – Groundwater Recharge	Uses of water for artificial recharge of groundwater for purpose of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.
REC I – Contact Water Recreation	Uses of water for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water skiing, skin and scuba diving, surfing, whitewater activities, fishing, and use of natural hot springs.
REC II – Non-Contact Water Recreation	Uses of water for recreational activities involving proximity to water but not normally involving contact with water where ingestion is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
WARM – Warm Freshwater Habitat	Uses of water that support warmwater ecosystems, including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

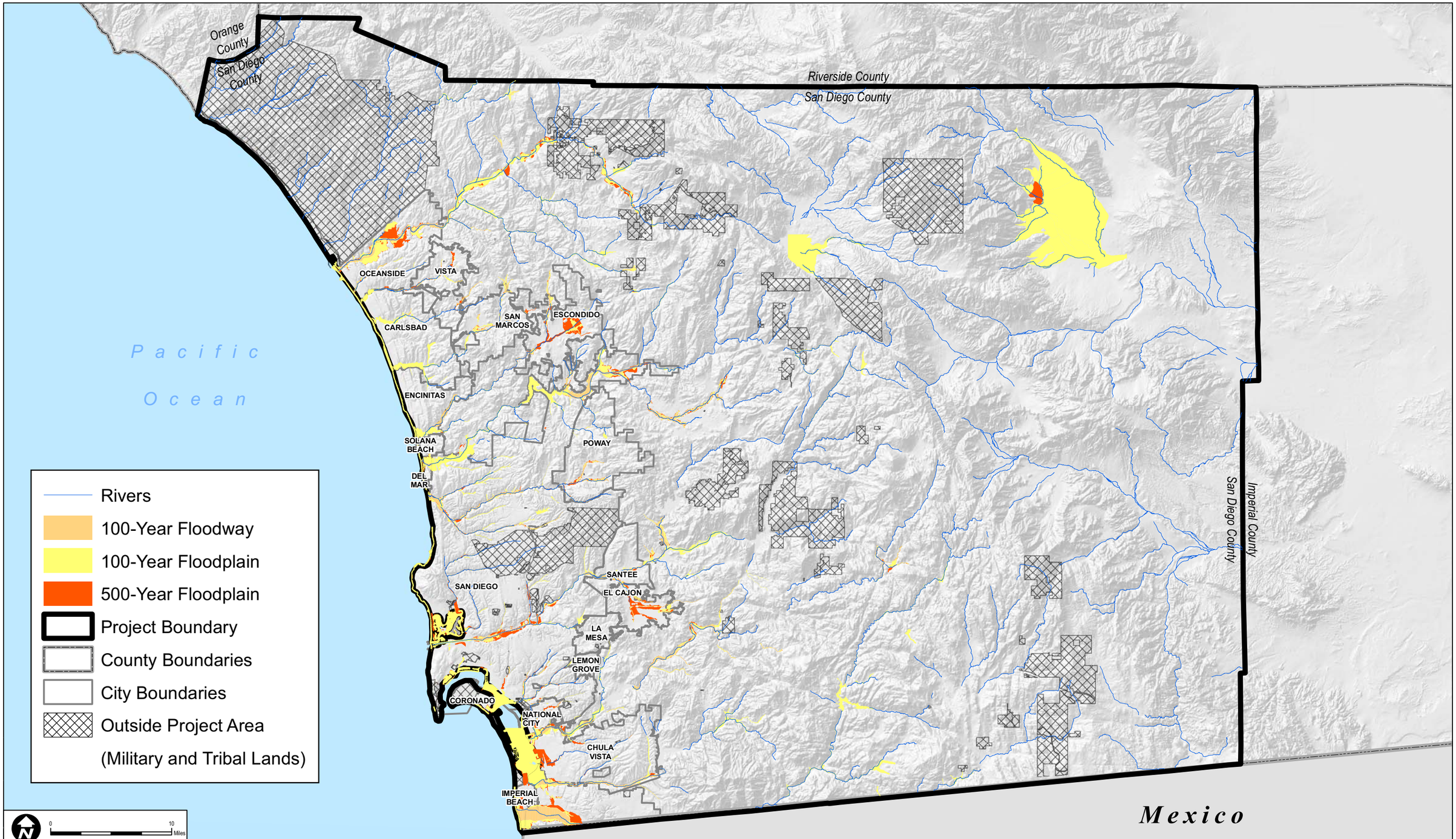
Table 2.3-2 (Continued)

COLD – Cold Freshwater Habitat	Uses of water that support coldwater ecosystems, including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
WILD – Wildlife Habitat	Uses of water that support terrestrial ecosystems, including, but not limited to, the preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, and invertebrates), or wildlife water and food sources.
RARE – Threatened or Endangered Species	Uses if water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.
NAV – Navigation	Uses of water for shipping, travel, or other transportation by private, military, or commercial vessels.
COMM – Commercial and Sport Fishing	Uses of water for commercial or recreational collection of fish, shellfish, or other organisms, including, but not limited to, uses involving organisms intended for human consumption or bait.
BIOL – Preservation of Biological Habitats of Special Significance	Uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS) where the preservation or enhancement of natural resources requires special protection.
EST – Estuarine Habitat	Uses of water that support estuarine habitat ecosystems, including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).
MAR – Marine Habitat	Uses of water that support marine ecosystems, including, but not limited to, preservation or enhancement of marine habitats; vegetation, such as kelp; fish, shellfish, or wildlife (e.g., mammals, birds, reptiles, amphibians, and invertebrates); or wildlife water and food sources.
AQUA – Aquaculture	Uses of water for aquaculture or mariculture operations, including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption and bait.
MIGR – Migration of Aquatic Organisms	Uses of water that support habitats necessary for migration and acclimatization between fresh and salt water.
SPWN – Spawning, Reproduction, and/or Early Development	Uses of water that support high-quality aquatic habitats suitable for reproduction and early development of fish. This use is applicable only for the protection of anadromous fish.
SHELL – Shellfish Harvesting	Uses of water that support habitats suitable for collection of filter-feeding shellfish (e.g., clams, oysters, and mussels) for human consumption, commercial, or sport purposes.
Source: County of San Diego Guidelines for Determining Significance: Surface Water Quality (County of San Diego 2007b).	



SOURCE: SANDAG 2006.
Note: Military and tribal lands are excluded from the project area.

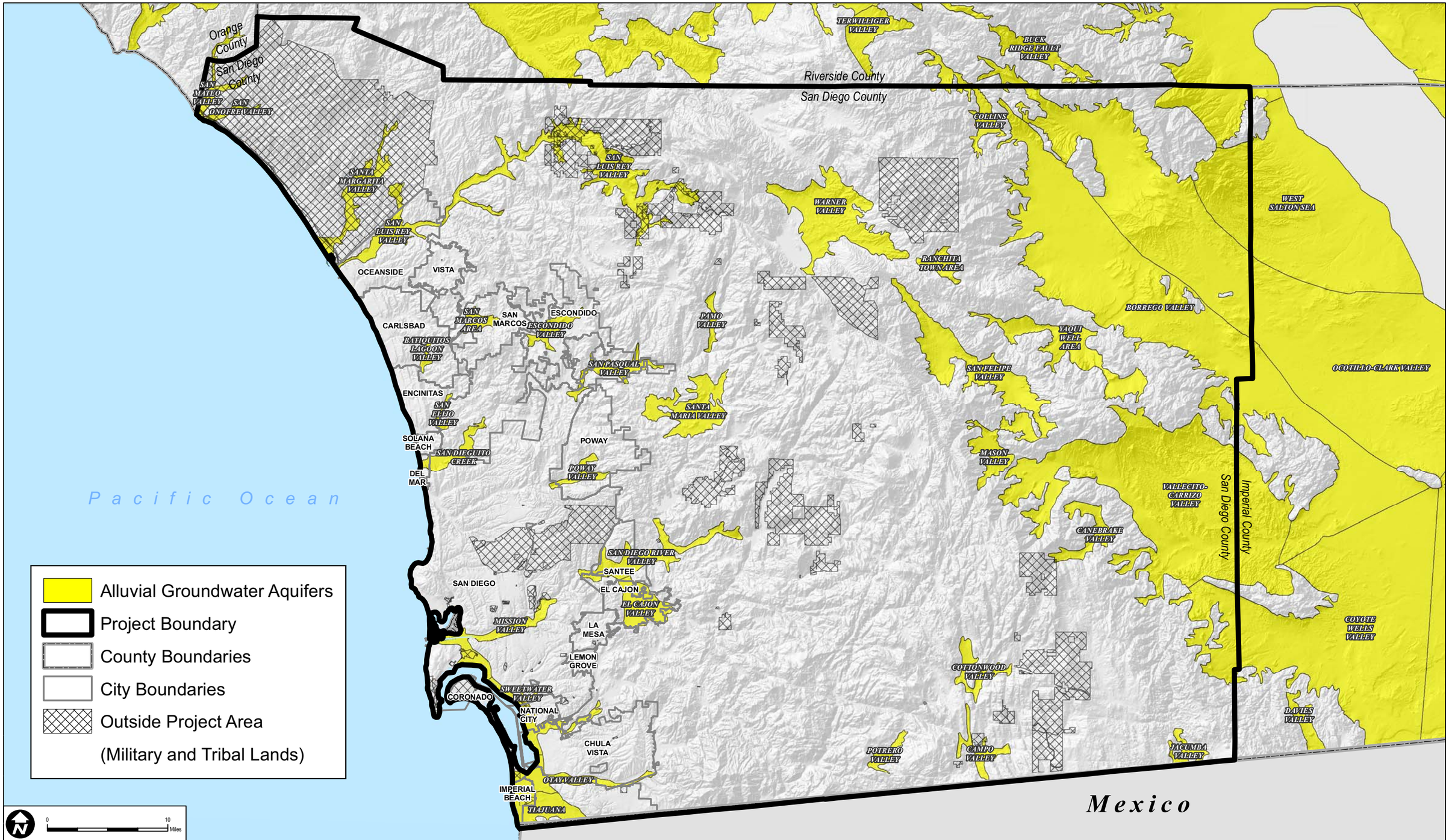
FIGURE 2.3-1
San Diego County Hydrologic Units



SOURCE: SanGIS 2008.

FIGURE 2.3-2

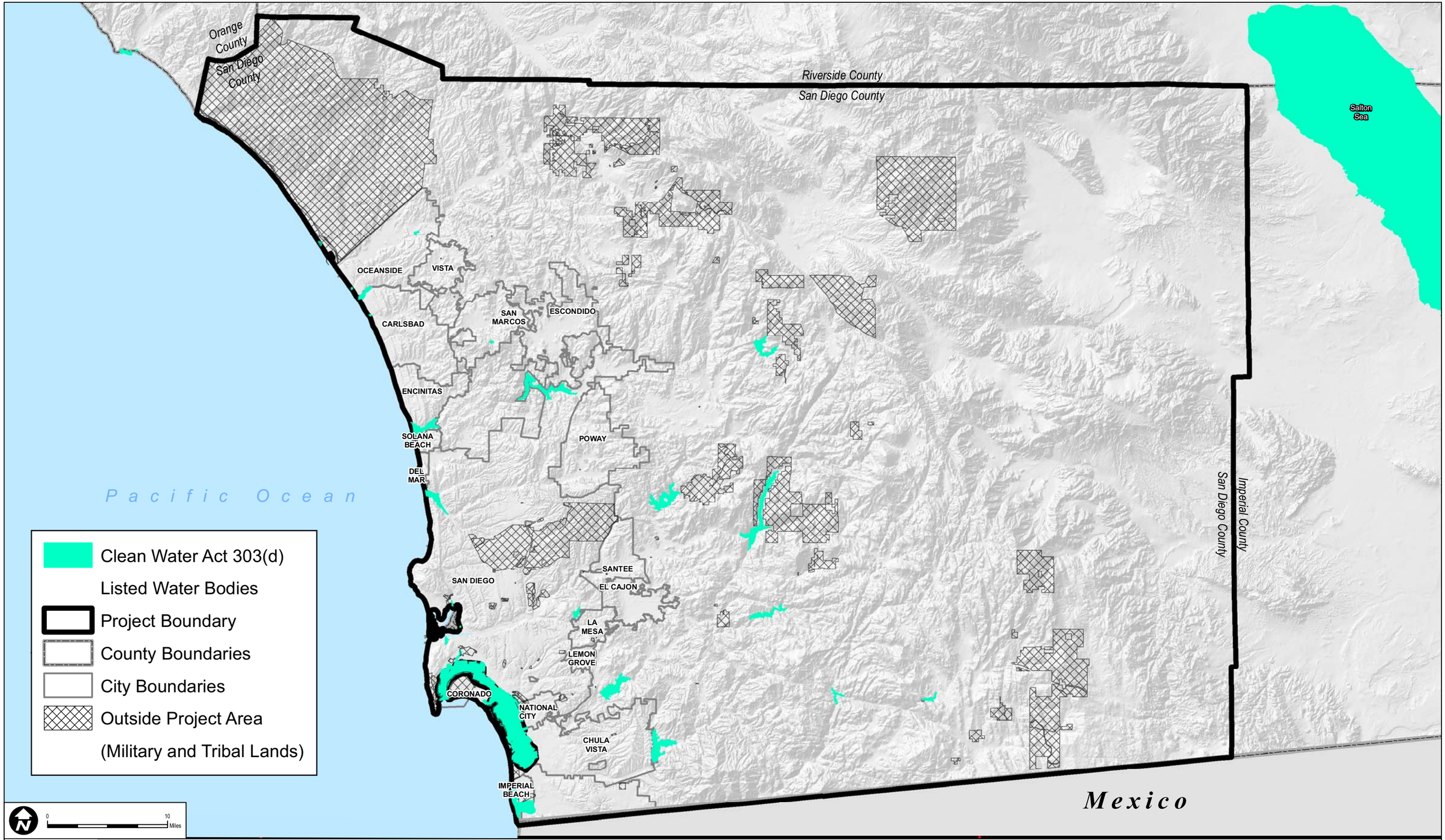
San Diego County Rivers and Floodplains



SOURCE: DWR 2007.

FIGURE 2.3-3

San Diego County Alluvial Groundwater Aquifers



SOURCE: SWRCB 2006.

FIGURE 2.3-4

Clean Water Act 303(d) List of Water Quality Limited Segments - San Diego Region

2.4 Noise

This section examines potential noise and vibration impacts that could occur as a result of VHRP-eligible projects. The information used in this analysis is general in nature; site-specific noise measurements and models were not performed for the VHRP because the future locations of VHRP-eligible projects are not known at this time.

2.4.1 Existing Conditions

VHRP-eligible projects could occur throughout San Diego County. Sensitive noise receptors can include residential uses, schools, hospitals, and sensitive biological habitat that may be particularly sensitive to excessive noise and vibration. Traffic on freeways and local roads and highways generates a substantial amount of noise in the region. This is generally the predominate source of noise in urban areas. As stated above, the locations of VHRP-eligible projects are unknown at this time; therefore, the existing noise levels at future project sites or the potential locations of sensitive receptors are unknown.

2.4.1.1 *Regulatory Environment*

All land use jurisdictions in San Diego County have ordinances that regulate activities to reduce noise impacts. The following section discusses some of the relevant regulations related to potential noise impacts.

State Regulations

California Noise Control Act (California Health and Safety Code 46000–46080)

This California Health and Safety Code finds that excessive noise is a serious public health and welfare hazard and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also finds that there is continuous and increasing noise encroachment in urban, suburban, and rural areas. The California Noise Control Act declares that the State of California is responsible for protecting the health and welfare of its citizens by controlling, preventing, and abating noise. It is the policy of the state to provide an environment for all Californians that is free from noise that jeopardizes the health or welfare of its citizens.

Local Regulations

County of San Diego General Plan, Noise Element (Part VIII)

The Noise Element of the County of San Diego General Plan establishes limitations for sound levels received at noise-sensitive land uses (NSLUs). An NSLU is defined as any residence, hospital, school, hotel, resort, library, or any other facility where quiet is an important attribute of

the environment. New development may cause an existing NSLU to be affected by noise from the development, or it may create or locate an NSLU in a place that is affected by noise. "Development" is defined as any physical development, including, but not limited to, residences, commercial or industrial facilities, roads, civic buildings, hospitals, schools, and airports. The Noise Element identifies airports and traffic on public roadways as major sources of noise.

The Noise Element states that an acoustical study is required if it appears that an NSLU would be subjected to a community noise equivalent level (CNEL) equal to 60 decibels (db) or more. CNEL applies weighting to noise during evening and nighttime hours to compensate for the increased sensitivity of people to noise at those times. CNEL is the equivalent sound level for a 24-hour period, with a +5 dB weighting applied to all sound occurring between 7:00 p.m. and 10:00 p.m. and a +10 dB weighting applied to all sound occurring between 10:00 p.m. and 7:00 a.m. CNEL is expressed in the A-weighting frequency scale (dBA). If an acoustical study confirms that more than 60 dB CNEL would be experienced, the development must make modifications to reduce exterior noise levels to less than 60 dB CNEL and interior noise levels to less than 45 dB CNEL. If these modifications are not made, the development shall not be approved unless a finding is made that specific social or economic considerations warrant project approval; if the noise level would exceed 75 dBA CNEL, even with such modifications, the development shall not be approved irrespective of such social or economic considerations.

The Noise Element includes special provisions for County road construction projects and interior noise levels in rooms that are usually occupied only part of the day (schools, libraries, etc.).

County of San Diego Noise Ordinance

The County of San Diego Noise Ordinance prohibits disturbing, excessive, or offensive noise and provides sound level limits to ensure health, comfort, safety, peace, and quiet for its citizens. The limits specified depend on the zoning for a particular property (e.g., residential, industrial, and commercial zones can have varying densities and intensities). Where two adjacent properties are zoned differently, the sound level limit at a location on the boundary between the two properties is the arithmetic mean of the respective limits for the two zones, except for extractive industries.

It is unlawful for any person to cause or allow the creation of any noise that exceeds the applicable limits of the noise ordinance at any point beyond the boundaries of the property on which the sound is produced. However, the noise ordinance allows the County to grant variances to noise limitations for temporary on-site noise sources. In addition, the noise ordinance establishes noise limitations pertaining to the operation of construction equipment.

2.4.2 Analysis of Project Effects and Determination of Significance

The following significance thresholds for noise are based specifically on criteria provided in the County's Guidelines for Determining Significance and Report Format and Content Requirements (2007c). The County's Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and developed using the best available information, with input from experts and the public. All information necessary to evaluate project impacts properly and thoroughly and determine impact significance was reviewed in preparing this PEIR. A significant impact would result if any of the following would occur:

- Project implementation would expose on- or off-site existing or reasonably foreseeable future noise-sensitive land uses to exterior or interior noise (including noise generated from the project together with noise from roads [existing and planned Circulation Element roadways], railroads, airports, heliports, and all other noise sources) in excess of any of the following:

  A. Exterior Locations:

     i. 60 decibels (community noise equivalent level), or

     ii. An increase of 10 decibels (community noise equivalent level) over pre-existing noise.

     In the case of single-family detached noise-sensitive land uses, exterior noise shall be measured at an outdoor living area that adjoins and is on the same lot as the dwelling and contains at least the following minimum area:

     1) Net lot area of up to 4,000 square feet: 400 square feet,

     2) Net lot area of 4,000 square feet to 10 acres: 10% of net lot area, or

     3) Net lot area over 10 acres: 1 acre.

     For all other projects, exterior noise shall be measured at all exterior areas provided for group or private usable open space.

  B. Interior Locations:

     45 decibels (community noise equivalent level) except for the following cases:

     i. Rooms that are usually occupied only part of the day (schools, libraries, or similar facilities); the interior 1-hour average sound level due to outside noise should not exceed 50 decibels, or

     ii. Corridors, hallways, stairwells, closets, bathrooms, or any room with a volume of less than 490 cubic feet.

- The project would generate airborne noise that, together with noise from all sources, would be in excess of the following:

  A. Non-Construction Noise: The limit specified in San Diego County Code Section 36.404, General Sound Level Limits, at the property line of the property on which the noise is produced or at any location on a property that is receiving the noise. (*Table 2.4-1, San Diego County Code Section 36.404 Sound Level Limits in Decibels* of this Program Environmental Impact Report).

  B. Construction Noise: Noise generated by construction activities related to the project that exceed the standards listed in San Diego County Code Section 36.409, Sound Level Limitations on Construction Equipment.

     According to Section 36.409, except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated that exceeds an average sound level of 75 decibels for an 8-hour period between 7 a.m. and 7 p.m. when measured at the boundary line of the property where the noise source is located or on any occupied property where noise is being received.

  C. Impulsive Noise: Noise generated by the project would exceed the standards listed in San Diego County Code Section 36.410, Sound Level Limitations on Impulsive Noise.

     According to Section 36.410, in addition to the general limitations on sound levels in Section 36.404 and the limitations on construction equipment in Section 36.409, the following additional sound level limitations shall apply:

     (a) Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in *Table 2.4-2, San Diego County Code Section 36.404, Sound Level Limits in Decibels,* when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received for 25% of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in *Table 2.4-2* are described in the County Zoning Ordinance.

     (b) Except for emergency work, no person working on a public road project shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in *Table 2.4-3, San Diego County Code Section 36.410, Maximum Sound Level (Impulsive) Measured at Occupied Property in Decibels for Public Road Projects,* when measured at the boundary line of the property

where the noise source is located or on any occupied property where the noise is received for 25% of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in *Table 2.4-3* are described in the County Zoning Ordinance.

(c) The minimum measurement period for any measurements made under this section shall be 1 hour. During the measurement period, a measurement shall be made every minute from a fixed location on an occupied property. The measurements shall measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer on the impulsive noise exceeds the maximum sound level for any portion of any minute, it will be deemed that the maximum sound level was exceeded during that minute.

- Project implementation will expose the uses listed in *Table 2.4-4, Guidelines for Determining the Significance of Ground-borne Vibration and Noise Impacts,* and *Table 2.4-5, Guidelines for Determining the Significance of Ground-Borne Vibration and Noise Impacts for Special Buildings,* to ground-borne vibration or noise levels equal to or in excess of the levels shown.

It was determined that item C, "Impulsive Noise," was not applicable to the proposed project due to the nature of the planned construction and operations. Therefore, it is not analyzed in Section 2.4.2.2.

2.4.2.1 *Noise-Sensitive Land Uses Affected by Airborne Noise*

Guidelines for the Determination of Significance

A significant impact would result if

- Project implementation would expose on- or off-site existing or reasonably foreseeable future noise-sensitive land uses to exterior or interior noise (including noise generated from the project together with noise from the roads [existing and planned Circulation Element roadways], railroads, airports, heliports, and all other noise sources) in excess of any of the exterior or interior location regulations identified in Section 2.4.2.

Analysis

Exterior Locations

In accordance with County of San Diego Regulatory Ordinances, Title 3, Division 6, Chapter 4 (Noise Abatement and Control), Section 36.408, construction of VHRP-eligible projects would occur Monday through Saturday from 7 a.m. to 7 p.m. Construction activities (e.g., grading, vegetation clearing, etc.) would be temporary and would not include equipment associated with the generation of excessive noise, such as pile drivers and vibratory rollers. Additionally, when averaged over 24 hours, construction noise (in accordance with the VHRP and its associated design features [listed in *Chapter 7*]) would be below the CNEL exterior location threshold.

VHRP-eligible projects could include the periodic use of noise-generating equipment, such as spinning wheels, sprayers, and other systems that promote agitation and wave action in wetland areas. The operation of these systems would not expose exterior NSLU areas to noise levels in excess of 60 dB (CNEL) or result in an increase of 10 dB (CNEL) over pre-existing noise levels. Impacts would be less than significant.

Interior Locations

When averaged over a 24-hour period, construction noise would fall below the 45 dB (CNEL) interior location threshold. Construction equipment would not be in continuous operation throughout the workday. In addition, the construction equipment would be mobile, resulting in fluctuating noise levels as the equipment travels around the site. Therefore, noise associated with construction equipment is not expected to exceed the 45 dB (CNEL) interior location threshold. Impacts would be less than significant.

VHRP-eligible projects may include noise-generating components that would operate periodically. As stated previously, these components would be small, low-profile components that could generate a minimal amount of noise in wetland areas. Systems or project components promoting agitation and wave action would be located at the water surface of the wetland but would not expose interior NSLU areas to noise levels in excess of 45 dB (CNEL). Impacts would be less than significant.

2.4.2.2 *Project-Generated Airborne Noise*

Guidelines for the Determination of Significance

A significant impact would result if

- Non-construction noise would exceed the limits specified in San Diego County Code

Section 36.404, General Sound Level Limits, as provided in *Table 2.4-1*, at the property line of the property where the noise is produced or at any location on a property that receives the noise; or

- Construction noise generated by construction activities related to the project would exceed the standards listed in San Diego County Code Section 36.409, Sound Level Limitations on Construction Equipment.

Analysis

Non-Construction Noise

Mechanical Equipment Noise Impacts

The use of mechanical equipment to reduce mosquito breeding habitat would result in the generation of new noise. Additionally, the installation of equipment to promote water retention times of less than 72 hours could also result in temporary noise level increases. The size, location, and specific equipment to be installed would be determined during the design phase of the VHRP-eligible projects. During operation of VHRP-eligible projects, mechanical equipment to reduce mosquito breeding habitat would not operate 24 hours a day, in accordance with the VHRP and its associated design features (listed in *Chapter 7*). Mechanical equipment would operate when conditions warrant its use (i.e., to limit water retention to 72 hours, promote agitation and wave action) at a site. Mechanical equipment and other systems would introduce new noise to a natural setting. These components would be small, low-profile components. In accordance with the VHRP and its associated design features (listed in *Chapter 7*), their operation would not expose land uses to noise levels in excess of the applicable 1-hour average sound level limits (measured in dBA), as discussed in San Diego County Code Section 36.404 (see *Table 2.4-1*). Therefore, impacts associated with mechanical equipment would be less than significant.

Ongoing Maintenance Noise Impacts

VHRP-eligible projects would be required to ensure that efforts to reduce mosquito breeding habitat would be effective and long term. Maintenance activities would be sporadic and involve occasional vegetation removal from wetland areas and stormwater treatment facilities and debris removal from clogged drains, pipes, and outfalls. Maintenance activities would involve the use of small, hand-operated pieces of equipment, which would not generate excessive noise and would not operate continuously throughout the workday. Due to the intermittent nature of maintenance activities and the generally minor noise output associated with small, handheld pieces of equipment, surrounding land uses would not be exposed to noise levels in excess of the applicable 1-hour average sound level limits (measured in dBA), as discussed in San Diego

County Code Section 36.404 (see *Table 2.4-1*). Therefore, impacts associated with ongoing maintenance activities would be less than significant.

Traffic Noise Impacts

Although the location of the VHRP-eligible projects is unknown at this time, traffic-generated noise impacts would be negligible since future projects would not generate daily traffic. Ongoing maintenance at future project sites would generate a very small amount of traffic (generally one or two maintenance vehicles, although this would ultimately be dependent on the size of the project). Maintenance activities at future project sites would be sporadic and would not result in a substantial increase in ambient noise levels compared with the existing noise level in the project vicinity. Noise generated by maintenance traffic would not expose land uses to noise levels in excess of the applicable 1-hour average sound level limits (measured in dBA), as discussed in San Diego County Code Section 36.404 (see *Table 2.4-1*). Therefore, impacts associated with traffic noise would be less than significant.

Construction Noise

As stated previously, construction of VHRP-eligible projects would occur Monday through Saturday between the hours of 7 a.m. and 7 p.m.

According to the VHRP guidelines, construction of VHRP-eligible projects could involve noise-generating activities such as minor grading, excavating, and the use of hand-operated mechanical equipment for vegetation removal. Construction activities pertaining to wetland and water quality treatment design would likely include equipment such as graders (to incorporate steep edges along wetland margins), backhoes or dredging equipment (to maximize open water areas), and small, hand-operated pieces of mechanical equipment (to remove vegetation). Construction activities pertaining to water management would likely include small, hand-operated pieces of mechanical equipment (to ensure active maintenance of drains, pipes, and outfalls). Construction activities pertaining to vegetation manipulation would likely include backhoes and small, hand-operated pieces of equipment. Depending on the type of equipment and intensity of use, equipment associated with these construction activities typically generates noise levels from 70 dBA to 95 dBA at 50 feet from the source (*Figure 2.4-1, Typical Construction Equipment Noise Generation Levels*).

The loudest short-term construction noises are typically generated by large pieces of mobile earthmoving equipment such as scrapers, graders, and loaders and generally result in a maximum noise level of 95 dBA at 50 feet from the source. In addition, typical hydraulic dredges would result in a maximum noise level of 80 dBA at 50 feet from the source. Mobile equipment usually operates in a cyclic fashion in which periods of full-power use are followed by periods of

low-power use. Mobile equipment noise levels can also fluctuate based on the location of the equipment on the project site. Construction of VHRP-eligible projects could involve the use of backhoes (which typically generate a maximum noise level of 95 dBA at 50 feet from source) but would more likely involve small, hand-operated pieces of equipment to remove vegetation.

Construction activities would be temporary in nature and would involve enhancing the environment around wetland areas to minimize vegetation or maximizing open water areas to provide additional predator habitat and promote water circulation and/or wave action. Construction equipment would be mobile, resulting in fluctuating noise levels as the equipment travels around the site. Mobile construction equipment is not typically used at full power for the entire duration of construction activities in a given day, and construction equipment would not be in operation for the entire 12-hour permitted construction time frame (i.e., 7 a.m. to 7 p.m.). However, any construction activities resulting in an average sound level of more than 75 dBA would be considered a significant short-term impact (Impact N-1).

Construction activities could generate noise in excess of acceptable noise level limits for sensitive wildlife habitat. As referenced in the County's Guidelines for Determining Significance for Biological Resources (2008a), 60 dBA L_{eq} (an hourly measurement) is a starting criterion and recommended threshold for determining impacts on sensitive wildlife species. Therefore, if sensitive wildlife habitat is located near VHRP-eligible projects, then construction activities could result in a significant short-term indirect impact on sensitive species (Impact N-2).

2.4.2.3 *Ground-Borne Vibration and Noise Impacts*

Guidelines for the Determination of Significance

A significant impact would result if

- Project implementation would expose the uses listed in *Tables 2.4-4* and *2.4-5* to ground-borne vibration or noise levels equal to or in excess of the levels shown.

Analysis

Land Use Categories

VHRP-eligible projects would not involve blasting, pile driving, or substantial compacting activities, which are known to generate excessive ground-borne vibrations. The most substantial vibration sources associated with construction of VHRP-eligible projects would be equipment used during grading activities, which may be necessary to incorporate steep edges along wetland margins, or dredging activities, which may be necessary to restore the flow of water within the

wetlands. Vibration generated during these activities would depend on a number of factors, including the amount of vibration generating activity (grading/dredging) required for the project and the nearest vibration-sensitive receptor. While construction is not expected to generate frequent ground-borne vibration events, future grading and/or dredging operations could occur in the vicinity of sensitive land uses (as identified in *Table 2.4-4*) and could result in ground-borne vibration. Any impact in excess of the established thresholds for occasional or infrequent events (refer to *Table 2.4-4*) would be significant (ImpactN-3).

Special Buildings

The location of VHRP-eligible projects is unknown at this time; however, projects could be located near special noise-sensitive buildings, including concert halls, TV studios, recording studios, auditoriums, or theatres. As stated previously, construction of VHRP-eligible projects would not include equipment normally associated with excessive ground-borne vibration. Proposed activities such as grading and dredging, however, may generate some ground-borne vibration. Therefore, because VHRP-eligible projects may use vibration-generating construction equipment that has the potential to result in impacts above the thresholds designated in *Table 2.4-5* for occasional or infrequent events, a significant short-term noise impact on special buildings could occur (ImpactN-4).

2.4.3 Cumulative Impact Analysis

As urbanization increases throughout the County, additional noise will be generated, exposing sensitive receptors to additional construction and traffic noise. Because the locations of future VHRP-eligible projects are not known at this time, a detailed analysis of the potential cumulative impacts related to noise in the County cannot be conducted. However, due to the nature and scale of the projects anticipated to be implemented under the VHRP (minor ground disturbance, vegetation clearing, etc., to reduce mosquito breeding habitat); the requirement to conform to the project design features outlined in this PEIR; the requirement to comply with all applicable federal, state, and local regulations related to noise; and the requirement to implement the mitigation measures outlined in this PEIR, projects implemented under the VHRP would not create a cumulatively considerable contribution to any potentially significant impact related to noise that may be indentified in San Diego County.

2.4.4 Significance of Impacts Prior to Mitigation

N-1 If construction activities of Vector Habitat Remediation Program–eligible projects result in an average sound level of more than 75 dBA at the location of a sensitive receptor, then a significant short-term noise impact would occur.

N-2 If sensitive wildlife habitat is located near Vector Habitat Remediation Program–eligible projects and construction activities for those projects generate noise of more than 60 dBA, then construction activities could result in significant short-term indirect impacts on sensitive species.

N-3 If Vector Habitat Remediation Program–eligible projects use vibration-generating construction equipment, then significant short-term noise impacts on sensitive receptors could occur.

N-4 If Vector Habitat Remediation Program–eligible projects use vibration-generating construction equipment, then significant short-term noise impacts on special buildings could occur.

2.4.5 Mitigation

The mitigation measures listed below would be implemented if a corresponding impact listed above is identified for a particular project to be constructed under the VHRP. If a specific impact is not identified for a particular project to be constructed under the VHRP, implementation of the associated mitigation measure will not be required. The following mitigation measures would reduce Impacts N-1 through N-4 to below a level of significance:

M-N-1 Operation of Vector Habitat Remediation Program–eligible projects shall be required to conform to the regulations governing noise limits within the applicable jurisdiction of the project. Construction and operational activities implemented under Vector Habitat Remediation Program–eligible projects shall conform to the requirements of the applicable noise element and/or municipal code governing acceptable noise as well as ground-borne vibration levels and construction activity hours.

M-N-2 Vegetation clearing activities for Vector Habitat Remediation Program–eligible projects shall be conducted outside of the bird and raptor breeding season (January 15 to September 15) to avoid impacts on nesting birds and raptors. In addition, if a Vector Habitat Remediation Program–eligible project is proposed near habitat for sensitive avian species, construction activities shall be required to conform to the 60 dB hourly L_{eq} noise level limit (through measures such as noise walls, muffling of equipment, etc.) to minimize potential impacts on sensitive avian species.

M-N-3 Operation of Vector Habitat Remediation Program–eligible projects shall be required to conform to the regulations governing noise limits within the applicable jurisdiction of the project. Construction and operational activities implemented under Vector Habitat Remediation Program–eligible projects shall conform to the requirements of

the applicable noise element and/or municipal code governing acceptable noise as well as ground-borne vibration levels and construction activity hours.

M-N-4 Operation of Vector Habitat Remediation Program–eligible projects shall be required to conform to the regulations governing noise limits within the applicable jurisdiction of the project. Construction and operational activities implemented under Vector Habitat Remediation Program–eligible projects shall conform to the requirements of the applicable noise element and/or municipal code governing acceptable noise as well as ground-borne vibration levels and construction activity hours.

2.4.6 Conclusion

Implementation of mitigation measures M-N-1, M-N-3, and M-N-4 would ensure that construction and operation of VHRP-eligible projects would conform to the regulations governing noise and ground-borne vibration limits within the applicable jurisdiction of the project.

Implementation of mitigation measure M-N-2 would prohibit construction near sensitive habitats during the bird and raptor breeding season (January 15 to September 15). Outside of the breeding season, construction activities would be required to conform to the 60 dBA L_{eq} noise level limit to minimize potential impacts on sensitive avian species. Therefore, mitigation measure M-N-2 would ensure that potential noise impacts on sensitive habitat and avian species would be reduced to a less-than-significant level.

Table 2.4-1. San Diego County Code Section 36.404 Sound Level Limits in Decibels (dBA)

Zone	Time	One-Hour Average Sound Level Limits (dBA)
(1) R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92, and R-V and R-U with a density of less than 11 dwelling units per acre	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	50 45
(2) R-RO, R-C, R-M, S-86, V5, and R-V and R-U with a density of 11 or more dwelling units per acre	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	55 50
(3) S-94, V-4, and all other commercial zones	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	60 55
(4) V1, V2 V1, V2 V1 V2	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m. 10 p.m. to 7 a.m.	60 55 55 50
V3	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	70 65
(5) M-50, M-52, and M-54	Anytime	70
(6) S-82, M-56, and M-58	Anytime	75

Note: If the measured ambient level exceeds the applicable limit noted above, the allowable 1-hour average sound level shall be the ambient noise level plus 3 decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating.
Source: County 2007b.

Table 2.4-2. San Diego County Code Section 36.410 Maximum Sound Level (Impulsive) Measured at Occupied Property in Decibels (dBA)

Occupied Property Use	Decibels (dBA)
Residential, village zoning, or civic use	82
Agricultural, commercial, or industrial use	85

Table 2.4-3. San Diego County Code Section 36.410 Maximum Sound Level (Impulsive) Measured at Occupied Property in Decibels (dBA) for Public Road Projects

Occupied Property Use	Decibels (dBA)
Residential, village zoning, or civic use	85
Agricultural, commercial, or industrial use	90

Table 2.4-4. Guidelines for Determining the Significance of Ground-borne Vibration and Noise Impacts

Land Use Category	Ground-borne Vibration Impact Levels (inches/sec rms)		Ground-borne Vibration Impact Levels (dB re 20 micro Pascals)	
	Frequent Events[1]	Occasional or Infrequent Events[2]	Frequent Events[1]	Occasional or Infrequent Events[2]
Category 1: Buildings where low ambient vibration is essential for interior operations (research and manufacturing facilities with special vibration constraints)	0.0018[3]	0.0018[3]	N/A	N/A
Category 2: Residences and buildings where people normally sleep (hotels, hospitals, residences, and other sleeping facilities)	0.0040	0.010	35 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use (schools, churches, libraries, other institutions, and quiet uses)	0.0056	0.014	40 dBA	48 dBA

Notes for Table:

1 "Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.

2. "Occasional or Infrequent Events" are defined as fewer than 70 vibrations events per day. This combined category includes most commuter rail systems.

3. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design on the HVAC systems and stiffened floors.

4. Vibration-sensitive equipment is not sensitive to ground-borne noise.

5. There are some buildings, such as concert halls, TV and recording studios, and theaters that can be very sensitive to vibration and noise but do not fit into any of the three categories. The table below gives criteria for acceptable levels of ground-borne vibration and noise for these various types of special uses.

6. For Categories 2 and 3 with occupied facilities, isolated events such as blasting are significant when the peak particle velocity (PPV) exceeds 1 inch per second. Non-transportation vibration sources such as impact pile drivers or hydraulic breakers are significant when their PPV exceeds 0.1 inch per second. More specific criteria for structures and potential annoyance were developed by Caltrans (2004) and will be used to evaluate these continuous or transient sources in San Diego County.

Source: U.S. Department of Transportation, Federal Transit Administration, Transient Noise and Vibration Impact Assessment, May 2006.

Table 2.4-5. Guidelines for Determining the Significance of Ground-Borne Vibration and Noise Impacts for Special Buildings

Type of Building or Room	Ground-Borne Vibration Impact Levels (inches/sec rms)		Ground-Borne Vibration Impact Levels (dB re 20 micro Pascals)	
	Frequent Events[1]	Occasional or Infrequent Events[2]	Frequent Events[1]	Occasional or Infrequent Events[2]
Concert Halls, TV Studios, and Recording Studios	0.0018	0.0018	25 dBA	25 dBA
Auditoriums	0.0040	0.010	30 dBA	38 dBA
Theatres	0.0040	0.014	35 dBA	43 dBA

Notes:

1. "Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.
2. "Occasional or Infrequent Events" are defined as fewer than 70 vibrations events per day. This combined category includes most commuter rail systems.
3. If the building will be rarely occupied when the trains are operating, there is no need to consider impact.
4. For historic buildings and ruins, the allowable upper limit for continuous vibration to structures is identified to be 0.056 inches/second rms. Transient conditions (single events) would be limited to approximately twice in the continuous acceptable value.

Source: U.S. Department of Transportation, Federal Transit Administration, Transient Noise and Vibration Impact Assessment, May 2006.

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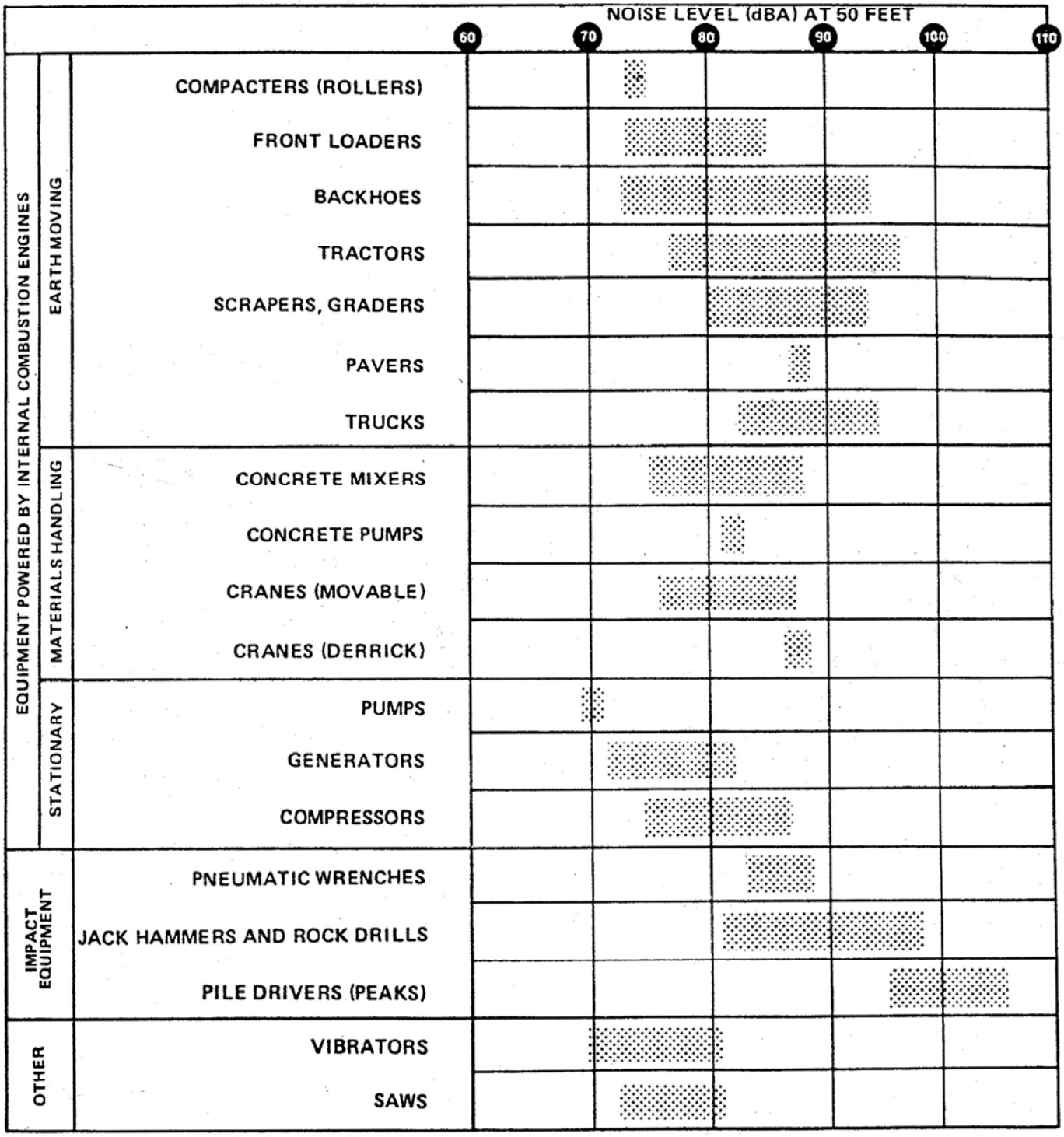

NOTE: Based on limited available data samples.

SOURCE: EPA PB 206717, Environmental Protection Agency, Dec. 31, 1971, "Noise from Construction Equipment & Operations"

FIGURE 2.4-1

Typical Construction Equipment Noise Generation Levels

CHAPTER 3.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

3.1 Effects Found Not Significant as Part of the EIR Process

Effects identified as potentially significant during the NOP process that were found not to be significant after further analysis pertain to the following sections: aesthetics and visual quality, air quality, geology and soils, hazards and hazardous wastes, mineral resources, transportation and traffic, and utilities and public services.

3.1.1 Aesthetics and Visual Quality

This section considers impacts on aesthetics and visual resources and potential effects to the visual character of project sites upon program implementation. The information and analysis in this section have been compiled based on an understanding of the visual character of areas likely to implement vector control measures and an understanding of the key concepts of the VHRP.

3.1.1.1 *Existing Conditions*

The VHRP would fund projects throughout San Diego County that propose to reduce mosquito breeding habitat and eradicate mosquitoes to control the spread of vector-borne diseases.

Visual Character

Setting

San Diego County has three distinctive geographic regions that provide a backdrop for visual resources: the low-lying Coastal Plain, the mountainous Peninsular Ranges, and the lowlands of the Desert region. The diversity of these regions provides San Diego County residents and visitors with a unique aesthetic collection of natural vistas and scenic environments from the ocean to the desert.

Coastal Plain

The Coastal Plain ranges in elevation from sea level to approximately 600 feet above mean sea level (AMSL) and lies mostly within incorporated cities in San Diego County, with the exception of the lower elevation foothills of the San Dieguito community. This region's primary aesthetic resources are coastlines, bays, lagoons, canyons, mesas, natural vegetation, urban and commercial development, and agricultural lands.

Peninsular Ranges

The foothills of the Peninsular Ranges region rise in elevation from 600 to 2,000 feet AMSL and are characterized by rolling to hilly uplands that contain frequent narrow, winding valleys. This region is traversed by several rivers as well as a number of intermittent drainages. The foothills are developed with various urban, suburban, and rural land uses, including the communities of Ramona, Lakeside, Crest-Dehesa, Valle de Oro, Spring Valley, and Otay. Notable scenic resources in the foothills of the unincorporated portions of the County include the Otay River, Sweetwater River, upper San Diego River, Upper and Lower Otay Lakes, Sweetwater Reservoir, Lake Hodges, and San Vicente Reservoir.

The higher elevations, 2,000 to 6,000 feet AMSL, are dominated by steep mountains, typically covered with granite boulders and chaparral vegetation on the western slopes, evergreen and temperate forests at and near the top, and desert chaparral on the eastern slopes. The largely undeveloped mountain areas surround scattered rural communities, including Alpine, Pine Valley, Jamul-Dulzura, Campo, and Julian. Scenic resources in this region are plentiful, including large open spaces such as Cleveland National Forest, the Agua Tibia Wilderness Area, San Mateo Canyon Wilderness, Palomar Mountain State Park, Cuyamaca Rancho State Park, and various County reserves and parks as well as several large water bodies (e.g., El Capitan Reservoir, Barrett Lake, Lake Morena, Lake Cuyamaca, and Lake Henshaw).

Desert

The eastern portion of San Diego County is within the Desert region. Elevations range from sea level to 3,000 feet AMSL, and the terrain includes mountains, alluvial fans, and desert floor. Most of the Desert region is within the Anza-Borrego Desert State Park, a valuable visual resource that provides scenic beauty for its many visitors. Development within the Desert region of the incorporated portions of the County includes the small desert communities of Borrego Springs and Ocotillo. The Desert region provides expansive views that are characterized by dramatic landforms, native desert habitat, and low desert valleys.

Throughout these three distinctive geographic provinces are vast amounts of publicly owned lands that provide open space and visual relief from the human-made environment. Examples include the U.S. Marine Corps base at Camp Pendleton in the Coastal Plain region of northern San Diego County; Cleveland National Forest in the Peninsular Ranges region; and Anza-Borrego Desert State Park in the Desert region. In addition to these examples of large expanses of open space, County parks, habitat preserves, reservoirs, farmland, and undeveloped lands contribute to San Diego County's open space lands and overall aesthetic resource value.

The VHRP would review and potentially provide funding to projects located within San Diego County (excluding military and tribal lands) that would reduce or eliminate mosquito breeding habitat in established wetlands, flood control facilities, effluent treatment ponds, and stormwater treatment facilities. The specific locations of the future actions that may occur under the VHRP are unknown at this time.

Viewer Groups

Sensitive viewpoints that could be affected by implementation of the VHRP include those at surrounding residences, recreational areas, and designated scenic roads in the vicinity of future VHRP-eligible projects. Viewer groups would include stationary viewers located on residential and commercial uses and mobile viewers on surrounding roads, highways, and recreational/hiking trails.

Viewer Response

Viewer response is composed of two elements: viewer sensitivity and viewer exposure. Viewer sensitivity is defined as the viewers' concern for scenic quality and the viewers' response to change in the visual resources that make up the view. Local values and goals may confer visual significance on landscape components and areas that would otherwise appear unexceptional in a visual resource analysis.

Viewer exposure is typically assessed by measuring the number of viewers exposed to the resource change, type of viewer activity, duration of views, speed at which the viewer moves, and position of the viewer. High viewer exposure heightens the importance of early consideration of design, art, and architecture and their roles in managing the visual resource effects of a project.

Regulatory Environment

The following section provides a list of some of the relevant regulations associated with aesthetics.

State Regulations

California Scenic Highway Law

This law created the California Scenic Highway Program to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of adjacent lands.

Local Regulations

County of San Diego General Plan

The general plan provides guidance for the preservation of aesthetic resources and incorporates specific community plans that include goals, policies, and recommendations to guide development of a region. These community plans identify a variety of specific planning considerations, which may include guidelines for protecting visual character and quality through development guidelines designed to minimize adverse aesthetic affects. The general plan also includes specific guidelines for scenic highways and open spaces, as described below.

San Diego County General Plan, Scenic Highway Element, Part VI

The general plan's Scenic Highway Element includes objectives to (1) establish a comprehensive County Scenic Highway Program, (2) protect and enhance scenic resources within both rural and urban scenic highway corridors, (3) encourage and promote increased coordination and implementation of the program, and (4) increase public awareness of and involvement in the program. The goal of the County's Scenic Highway Program is to protect and enhance the County's scenic, historic, and recreational resources within the viewshed of all scenic highway corridors. The Scenic Highway Element includes criteria to be used when reviewing and recommending changes to the County's Scenic Highway System.

County Scenic Highway Program

The County's Scenic Highway Program established a scenic highway system priority list, which is included in the Scenic Highway Element, Part IV. The routes in the County's Scenic Highway Program are listed as First-, Second-, or Third-Priority Scenic Routes. There are 6 first-priority routes, 16 second-priority routes, and 38 third-priority routes.

3.1.1.2 *Analysis of Project Effects and Determination as to Significance*

The following significance thresholds for visual resources are based specifically on criteria provided in the County's Guidelines for Determining Significance (2007d). The County's Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and developed using the best available information, with input from experts and the public. All information necessary to properly and thoroughly evaluate project impacts and determine impact significance was reviewed in preparing this PEIR. A significant impact would result if any of the following would occur:

- The project would introduce features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community or localized area by

conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines.

- The project would result in removal of or substantial adverse change to one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including, but not limited to, landmarks (designated), historic resources, trees, and rock outcroppings.
- The project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a
    - public road,
    - trail within an adopted County or state trail system,
    - scenic vista or highway, or
    - recreational area.
- The project would not comply with applicable goals, policies, or requirements of an applicable County community plan, a subregional plan, or historic district zoning.

Visual Character and/or Visual Quality

Analysis

VHRP-eligible projects would reduce mosquito breeding habitat through wetland and water quality design, water management, and vegetation manipulation. Wetland and water quality treatment design concepts would include grading and dredging activities. No major earthwork is proposed that would significantly alter the visual character of the project sites. Also, under these concepts, no major structures are proposed that, if constructed, would be incompatible with the existing visual character of the natural wetland site. Concepts addressing wetland and water quality treatment design would alter the wetland area to minimize vegetation and maximize deep, open water areas. Measures to achieve these goals are not expected to result in a landscape that is incompatible with the existing visual character and/or quality of a neighborhood, community, or localized area in terms of style, theme, scale, diversity, and continuity. Impacts would be less than significant.

The implementation of proposed water management concepts would reduce mosquito breeding habitat by introducing water delivery and water structure systems specifically designed to minimize opportunities for mosquito production. Designs of these systems would limit water retention within sedimentation basins and other such facilities (not natural wetlands) to less than 72 hours. In addition, sprayers, spinning wheels, and other pieces of mechanical equipment that promote water agitation and wave action may be installed as part of the project. This equipment

and other ground-level features would affect small areas near the water surface and would likely be visible only to nearby viewers. Water management systems and equipment would result in minor alterations to the existing visual character of project sites. Impacts would be less than significant.

Vegetation manipulation concepts would implement activities that would control the size of on-site native and nonnative vegetation. Small, hand-operated pieces of equipment would be used to control vegetation near the wetland margins and within open water areas. Vegetation manipulation may also be necessary to provide for mosquito surveillance and control activities. Where dense vegetation is present, VHRP-eligible projects may alter the visual character of the site by changing a primarily vegetated site to a partially vegetated site. However, since vegetation removal would occur at wetland margins or within water areas, project activities would not result in a landscape that would be incompatible with the existing visual character. Impacts would be less than significant.

Wetland design and vegetation manipulation concepts would affect valuable visual features if trees, rock outcroppings, and other scenic resources are removed or relocated. Historic buildings would not be removed or relocated because they are not typically located within established wetlands, flood control facilities, effluent treatment ponds, or stormwater management facilities. Rock outcroppings and trees may be located near established wetlands and other facilities; however, aesthetic impacts resulting from construction or maintenance activities would be minimal and would not result in substantial adverse changes to project sites. In addition, VHRP-eligible projects would not result in the demolition of any existing buildings, structures, or landmarks. Impacts on features that contribute to the valued visual character of the neighborhood or community would be less than significant.

A valued focal and/or panoramic view may be located near a VHRP-eligible project site. Depending on the location and the existing views afforded at the project site, adherence to the guidelines for VHRP key concepts, including wetland and water quality treatment design and vegetation manipulation, may affect a valued focal or panoramic view. As part of wetland and water quality treatment design guidelines, grading and dredging would involve activities that would alter the natural contours of the project site. However, due to the relatively minor earthwork proposed, VHRP-eligible projects would not significantly obstruct, interrupt, or detract from a valued focal or panoramic vista. Impacts would be less than significant.

Projects that incorporate water management concepts may include components or systems that promote agitation and wave action by locating small, low-profile pieces of mechanical equipment near wetland areas. These components would not project vertically more than 3 feet in height above the existing predominant features of any specific site and, therefore, would not affect focal and/or panoramic views at project sites. In addition, project components designed to

limit water retention to 72 hours are for sedimentation basins or other such facilities (not natural wetlands) and, therefore, are not anticipated to alter the visual character of these sites. Impacts would be less than significant.

Vegetation manipulation concepts, including the removal of vegetation as part of ongoing maintenance efforts of VHRP-eligible projects, would reduce on-site vegetation. The removal of vegetation from wetland areas would not obstruct, interrupt, or detract from a valued focal or panoramic vista because removal would be limited to only that required to reduce mosquito breeding habitat. In accordance with the key concepts, narrow strips of vegetation would be retained. Vegetation removal may alter the visual quality of the project site but would not significantly affect a focal or panoramic vista. Therefore, VHRP-eligible projects would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road or a trail within an adopted County or state trail system. Impacts would be less than significant.

A scenic route identified in the County's Scenic Highway Program may be located near a VHRP-eligible project site. If a VHRP-eligible project is located near a scenic route, then the project will comply with design standards established by the County to regulate the visual quality of development within the designated scenic highway corridor.

Future VHRP-eligible projects located outside of the County's jurisdiction would be required to comply with the relevant land use plans, policies, or regulations of the agency with jurisdiction over the project. VHRP-eligible projects would therefore be required to comply with all applicable local guidelines protecting visual character and quality. Therefore, no impacts would occur.

3.1.1.3 *Cumulative Impact Analysis*

Past, present, and reasonably foreseeable future projects located in the vicinity of individual projects to be implemented under the proposed VHRP may result in significant cumulative impacts on aesthetics. However, implementation of VHRP-eligible projects, which would be required to comply with the design features and mitigation measures outlined in this PEIR, would not result in a significant adverse impact related to landform alteration, the visual character of the project area, scenic highways, or light and glare. Therefore, implementation of the VHRP would not create a cumulatively considerable contribution to any identified cumulative impact related to visual resources and visual quality in San Diego County.

3.1.1.4 *Conclusion*

Implementation of the VHRP would reduce mosquito breeding habitat through wetland and water quality design, water management, and vegetation manipulation. VHRP-eligible projects

may result in minor alterations to the landform, but this would not result in potential significant impacts. VHRP-eligible projects would not result in any significant adverse aesthetic impacts, and no mitigation would be required.

3.1.2 Air Quality

This section considers impacts on air quality associated with future VHRP-eligible projects. The information and analysis in this section are based on an understanding of the existing ambient air quality of the San Diego Air Basin (SDAB) and an understanding of the key concepts of the VHRP. The Global Climate Change Analysis report prepared by Bonterra Consulting (Bonterra 2009; *Appendix C*) was used to prepare the global climate change discussion provided in this section.

3.1.2.1 *Existing Conditions*

Climate and Meteorology

The climate of San Diego County is dominated by a semi-permanent high-pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The project site is located within the SDAB. The basin is an area of high air pollution potential due to its climate. The general region possesses a mild climate tempered by cool sea breezes with light average wind speeds. This basin experiences warm summers, mild winters, infrequent rainfall, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The SDAB experiences frequent temperature inversions. Under an inversion condition, temperature increases as altitude increases, thereby preventing air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, an upper layer of warm air forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and nitrogen dioxide (NO_2) react under strong sunlight, creating smog. Light daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, high carbon monoxide (CO) levels are due to cold temperatures and the large number of cars traveling on roads and highways. High CO levels during the late evenings are a result of stagnant atmospheric conditions that trap CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the basin are associated with heavy traffic. NO_2 levels are generally highest during fall and winter days.

Under certain conditions, a change in air flow results from an offshore transport of air from the Los Angeles region to San Diego County. This often results in high ozone (O_3) concentrations at air pollutant monitoring stations in San Diego County.

Regulatory Environment

Air quality is defined by the ambient air concentrations of specific pollutants, as identified by EPA, that relate to the health and welfare of the general public. EPA is responsible for enforcing the federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 amendments. The CAA required EPA to establish national ambient air quality standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated.

The CAA allows states to adopt ambient air quality standards (AAQS) and other regulations provided they are at least as stringent as the federal standards. The California Air Resources Board (CARB) has established the more stringent California ambient air quality standards (CAAQS) for six criteria pollutants through the California Clean Air Act (CCAA) of 1988 and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered "non-attainment areas" for that pollutant. *Table 3.1.2-1, Ambient Air Quality Standards,* presents a summary of the AAQS adopted by the federal CAA and the CCAA. The SDAB is currently classified as a non-attainment area under the CAAQS for O_3, particulate matter less than 2.5 microns in size (PM2.5), and particulate matter less than or equal to 10 micrometers in size (PM10) (see *Table 3.1.2-2, State and Federal Attainment Designations for San Diego County*).

The CCAA requires areas that have not attained the CAAQS for O_3, CO, sulfur dioxide (SO_2), or NO_2 to prepare plans to attain the standards by the earliest practicable date. San Diego County has been designated by the CARB as a non-attainment area for O_3, PM2.5, and PM10. Because the region is a non-attainment area for O_3, the SDAPCD and SANDAG have jointly developed the San Diego Regional Air Quality Strategy (SDRAQS) to identify feasible emission control measures to achieve compliance with the state O_3standard. The local air district has the primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations for San Diego County.

SDAPCD and SANDAG are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The SDRAQS outlines SDAPCD's plans and control measures to attain the state air quality standards for O_3. SDAPCD has also provided input to the State Implementation Plan (SIP), which is required under the CAA for areas that are out of attainment of air quality standards. The SIP includes SDAPCD's plans and control measures for attaining the O_3 NAAQS. The SDAB has been

designated as an O_3 attainment area for the 1-hour NAAQS. Also, as discussed below, the SDAB has been designated as a non-attainment area for the new 8-hour NAAQS for O_3.

The SDRAQS relies on information from the CARB and SANDAG, including mobile-area source emissions and information regarding projected growth in San Diego County, to project future emissions and then determines the strategies necessary to reduce emissions through regulatory controls. The CARB mobile-source emission projections and SANDAG growth projections are based on population and vehicle trends as well as land use plans developed by the cities and County as part of the development of the County's General Plan. As such, projects that propose development consistent with the growth anticipated by the general plan and SANDAG's growth forecasts would be consistent with the SDRAQS and the SIP.

The SIP relies on the information from SANDAG to develop emission inventories and reduction strategies, which are included in the attainment demonstration for the air basin. The SIP also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby affect attainment of the NAAQS for O_3.

In addition to the aforementioned regulations, the County has also published guidelines for analyzing air quality impacts for CEQA. The CEQA Guidelines provide analysis methodology and significance thresholds. The County has identified daily pollutant emission thresholds against which all projects located within the jurisdiction of the County would be screened (see *Table 3.1.2-3, Screening Level Criteria for Air Quality Impacts*).

Background Air Quality Data

The SDAPCD monitors air quality conditions at 10 locations throughout the SDAB. Pollutant levels, state standards, federal standards, and the number of exceedances recorded in the project area from 2003–2007 are identified in *Table 3.1.2-4, Summary of Ambient Air Quality Data – San Diego Air Basin 2003–2007*. As shown in *Table 3.1.2-4*, criteria pollutants NO_2 and SO_2 did not exceed the state standard from 2003–2007, and the 8-hour state standard for CO was exceeded only once, in 2003. However, O_3, PM10, and PM2.5 exceeded the state and federal standards on multiple occasions.

Background CO concentrations are typically used as an indicator of conformity with CAAQS, because CO is the primary component of automobile exhaust (tailpipe emissions) and it does not readily react with other pollutants. In other words, operational air quality impacts associated with a project are generally best reflected through estimated changes in CO concentrations.

The background CO level is typically defined as the highest reading over the past 3 years. A review of data from the SDAB for the 2005–2007 period indicates that the 8-hour background concentration is approximately 4.0 parts per million (ppm). The existing 8-hour background concentration does not exceed the state CO standard of 9.0 ppm.

Existing Air Quality/Attainment Status

The CARB designates those portions of the state where federal or state AAQS are not met as non-attainment areas. *Table 3.1.2-2* summarizes the air quality attainment status for the SDAB. As discussed above, where a pollutant exceeds standards, the federal CAA and CCAA require air quality management plans that demonstrate how the standards will be achieved. These laws also provide the basis that the implementing agencies will use to develop mobile- and stationary-source performance standards.

Historically, violations of federal and state AAQS for O_3, particulate matter, and CO have occurred throughout San Diego County. Since the early 1970s, substantial progress has been made toward controlling these pollutants; however, violations of AAQS for particulate matter and O_3remain persistent.

Toxic Air Contaminants

Toxic air contaminants (TACs) refer to a category of air pollutants that pose a present or potential hazard to human health but tend to have more localized impacts than criteria pollutants. The CARB recently identified diesel particulate matter as the predominant TAC in California. Diesel particulate matter is emitted into the air via diesel-powered vehicles. Such vehicles include heavy-duty diesel trucks, construction equipment, and passenger cars. Certain reactive organic gases may also qualify as TACs. Because no safe region-wide level of emissions can be established for TACs, their regulation is based on the levels of cancer risk.

Global Climate Change

Increased emissions of greenhouse gases (GHGs)—primarily those associated with the burning of fossil fuels (during motorized transport, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.), deforestation, agricultural activity, and solid waste decomposition—have led to a trend of anthropogenic warming of the earth's average temperature, which is causing changes in the earth's climate. This increasing temperature phenomenon is known as "global warming" and the climatic effect is known as "climate change" or "global climate change."

Recent scientific research indicates with very high confidence (i.e., at least 90%) that the rate and magnitude of current global temperature changes are anthropogenic and that global warming will

lead to adverse climate change effects around the globe. Anthropogenic effects, processes, objects, or materials are those that are derived from human activities, as opposed to those occurring in natural environments without human influence.

Greenhouse Gases

Atmospheric gases and clouds within the earth's atmosphere influence the earth's temperature by absorbing most of the infrared radiation that rises from the earth's sun-warmed surface, which would otherwise escape into space. This process is commonly known as the "greenhouse effect." GHGs are emitted by natural processes and human activities. The earth's surface temperature averages about 58°F because of the greenhouse effect. The resulting balance between incoming solar radiation and outgoing radiation from both the earth's surface and atmosphere keeps the planet habitable.

GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Anthropogenic emissions of GHGs into the atmosphere enhance the greenhouse effect by absorbing radiation from other atmospheric GHGs that would otherwise escape to space, thereby trapping more radiation in the atmosphere and causing temperatures to increase. The most common GHG is CO_2, which constitutes approximately 84% of all GHG emissions in California. Worldwide, California ranks as the 12th to 16th largest emitter of CO_2 and is responsible for approximately 2% of the world's CO_2 emissions.

GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere compared to CO_2. For example, since CH_4 and N_2O are approximately 21 and 310 times more powerful than CO_2, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 21 and 310 (CO_2 has a global warming potential of 1). Carbon dioxide equivalent (CO_2e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO_2e. The atmospheric lifetime and GWP of selected GHGs are summarized in *Table 3.1.2-5, Global Warming Potentials and Atmospheric Lifetimes*.

General Environmental Effects of Global Climate Change

Scenarios of Climate Change in California

An overview known as the Climate Scenarios report was published in February 2006 that discusses the impacts of climate change on California. The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project three potential ranges of temperature increase. According to the report,

substantial temperature increases would result in a variety of impacts on California's people, economy, and environment, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Under the emissions scenarios of the Climate Scenarios report and a subsequent analysis, the impacts of global warming in California are anticipated to include, but are not limited to, the following:

- Public Health. Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation;
- Water Resources. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. The state's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers;
- Agriculture. Increased GHG emissions are expected to cause widespread changes in the agriculture industry, reducing the quantity and quality of agricultural products statewide. In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Continued global warming is also likely to alter the abundance and types of many pests, lengthen the pests' breeding season, and increase pathogen growth rates; and
- Forests and Landscapes. Global warming is expected to intensify the risk of wildfire and resultant altering of the distribution and character of natural vegetation.

Global, National, and State Contributions to Greenhouse Gas Emissions

Global

Anthropogenic GHG emissions worldwide as of 2006 totaled approximately 29,700 CO_2 equivalent million metric tons ($MMTCO_2e$).[1]

United States

The United States was the top producer of GHG emissions as of 2005. Based on GHG emissions in 2005, six states—Texas, California, Ohio, Pennsylvania, Florida, and Illinois, in ranked order—would each rank among the top 25 GHG emitters internationally. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 85% of total GHG emissions. Carbon dioxide from fossil fuel combustion, the largest source of GHG

[1] The CO_2 equivalent emissions are commonly expressed as "million metric tons of carbon dioxide equivalent ($MMTCO_2e$)." The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated GWP such that $MMTCO_2e$ = (million metric tons of a GHG) x (GWP of the GHG). For example, the GWP for methane is 21. This means that emissions of one million metric tons of methane are equivalent to emissions of 21 million metric tons of CO_2.

emissions in the United States, accounted for approximately 80% of GHG emissions in the United States.

State of California

Based on the 2004 GHG inventory data (the latest year available) compiled by CARB for the California 1990 GHG emissions inventory, California emitted 484 $MMTCO_2e$, including emissions resulting from out-of-state electrical generation. A California Energy Commission (CEC) emissions inventory report found CO_2 produced by fossil fuel combustion in California to be the largest source of GHG emissions in 2004, accounting for 81% of the total GHG emissions. CO_2 emissions from other sources contributed 2.8% of the total GHG emissions, methane emissions 5.7%, nitrous oxide emissions 6.8%, and the remaining 2.9% was composed of emissions of high-GWP gases, mostly refrigerants. The primary contributors to GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions are presented in *Table 3.1.2-6, GHG Sources in California*.

San Diego County

A regional GHG inventory was prepared by the University of San Diego School of Law's Energy Policy Initiative Center. This San Diego County GHG inventory takes into account the unique characteristics of the region in calculating emissions. The total estimated GHG emissions for San Diego County in 2006 was 34 $MMTCO_2e$. The GHG inventory calculated GHG emissions for 2006 as shown in *Table 3.1.2-7, San Diego County GHG Emissions – 2006*.

Federal Climate Change Policy

There are no federal laws or regulations governing the emission of GHGs. House Resolution (HR) 6, the 2007 Energy Bill, mandates improved national standards for vehicle fuel economy (Corporate Average Fuel Economy [CAFE] standards). These standards require a fleetwide average of 35 miles per gallon (mpg) to be achieved by 2020. The National Highway Traffic Safety Administration is directed to phase-in requirements to achieve this goal. Analysis by the CARB suggests that achieving this goal will require an annual improvement in fleetwide average fuel economy of approximately 3.4% between now and 2020. Although the explicit purpose of requiring improved national standards for fuel economy was not to address climate change, these requirements would improve the fuel economy of the nation's vehicle fleet and therefore incrementally lower the amount of fuel use and GHG emissions associated with vehicle trips generated by the proposed project.

State Climate Change Policy

There are numerous state plans, policies, regulations, and laws related to GHG and global climate change. Following is a brief discussion of some of these plans, policies, and regulations.

Assembly Bill 1493

In 2002, Governor Gray Davis signed AB 1493, which required CARB to develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations, adding GHG emission standards to California's existing motor vehicle emission standards and requiring automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016. To enact state standards for vehicle emissions, a waiver is required from EPA.

In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of the GHG emission standards. In December 2007, after various delays and the settlement of related federal court cases, the judge in the case ruled in California's favor. Subsequently, however, EPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging EPA's denial on January 2, 2008. California's waiver request has not been granted as of this writing, but the Obama administration has directed EPA to reexamine its decision.

Executive Order S-3-05

Signed by Governor Arnold Schwarzenegger on June 1, 2005, Executive Order S-3-05 proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. In an effort to avoid or reduce the impacts of climate change, Executive Order S-3-05 calls for a reduction in GHG emissions to the 2000 level by 2010, 1990 levels by 2020, and 80% below 1990 levels by 2050.

Assembly Bill 32, the California Global Warming Solutions Act of 2006

The California legislature adopted the public policy position that global warming is "a serious threat to the economic well-being, public health, natural resources, and the environment of California." Further, the state legislature has determined that "the potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra Nevada snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health-related problems" and that "(g)lobal warming will have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry (and)…will also increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the state." These public policy statements became law with the enactment of AB 32, the California Global Warming Solutions Act of 2006, signed by Governor Arnold Schwarzenegger in September 2006.

AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction is to be accomplished through an enforceable statewide cap on GHG emissions, which is to be phased in starting in 2012.

Senate Bill 97

This bill was signed in August 2007 and directs the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions for evaluation under CEQA by July 1, 2009. The Resources Agency is required to certify or adopt those guidelines by January 1, 2010.

Governor's Office of Planning and Research Technical Advisory

On June 19, 2008, the OPR issued a Technical Advisory on addressing climate change impacts of a proposed project under CEQA (OPR Climate Change Advisory). The OPR Climate Change Advisory recommends that lead agencies quantify, determine the significance of, and (as needed) mitigate the cumulative climate change impacts of a proposed project. The OPR Climate Change Advisory identifies that each lead agency is required under CEQA to exercise its own discretion in choosing how to determine significance in the absence of adopted thresholds or significance guidelines from the state, CARB, or the applicable local air district.

In April 2009, OPR issued *Preliminary Draft CEQA Guideline Amendments for Greenhouse Gas Emissions* that included the following:

(a) A lead agency should consider the following, where applicable, in assessing the significance of impacts from greenhouse gas emissions, if any, on the environment:

(1) The extent to which the project could help or hinder attainment of the state's goals of reducing greenhouse gas emissions to 1990 levels by the year 2020 as stated in the Global Warming Solutions Act of 2006. A project may be considered to help attainment of the state's goals by being consistent with an adopted statewide 2020 greenhouse gas emissions limit or the plans, programs, and regulations adopted to implement the Global Warming Solutions Act of 2006;

(2) The extent to which the project may increase the consumption of fuels or other energy resources, especially fossil fuels that contribute to greenhouse gas emissions when consumed;

(3) The extent to which the project may result in increased energy efficiency of and a reduction in overall greenhouse gas emissions from an existing facility;

(4) The extent to which the project impacts or emissions exceed any threshold of significance that applies to the project.

OPR proposes adding the following section to the CEQA Initial Study Checklist:

GREENHOUSE GAS EMISSIONS—Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

County of San Diego

The County has no regulations relative to GHG emissions. However, the County has a Green Building Incentive Program that is a voluntary program to promote energy- and resource-efficient building design. Incentives, in the form of fast-track plan checking and fee reductions, are offered to developers who use recycled materials in construction, install irrigation systems using graywater, build projects that exceed the energy efficiency standards of California's Title 24, or install photovoltaic electricity generation systems.

3.1.2.2 *Analysis of Project Effects and Determination as to Significance*

The following significance thresholds for air quality are specifically based on criteria provided in the County's Guidelines for Determining Significance (2007e). The County's Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and developed using the best available information, with input from experts and the public. All information necessary to evaluate project impacts properly and thoroughly and determine impact significance was reviewed in preparing this PEIR. A significant impact would result if any of the following would occur:

- The project would conflict with or obstruct the implementation of the San Diego Regional Air Quality Strategy and/or applicable portions of the State Implementation Plan.
- The project would result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation:
    - The project would result in emissions that exceed 250 pounds per day of oxides of nitrogen or 75 pounds per day of volatile organic compounds,
    - The project would result in emissions of carbon monoxide that, when totaled with the ambient concentration, would exceed a 1-hour concentration of 20 parts per million or an 8-hour average of 9 parts per million,
    - The project would result in emissions of particulate matter less than 2.5 microns in size that exceed 55 pounds per day,
    - The project would result in emissions of particulate matter less than or equal to 10 micrometers in size that exceed 100 pounds per day and increase the ambient particulate matter less than or equal to 10 micrometers in size concentrations by 5 micrograms per cubic meter or greater at the maximum exposed individual.
- The project would result in a cumulatively considerable net increase of any criteria pollutant for which the San Diego Air Basin is in non-attainment under an applicable federal or state ambient air quality standard (including emissions which exceed the screening level threshold for ozone precursors listed in *Table 3.1.2-3).*
    - The following guidelines for determining significance must be used for determining the cumulatively considerable net increases during the construction phase:
        - A project that has a significant direct impact on air quality with regard to emissions of particulate matter less than or equal to 10 micrometers in size, particulate matter less than 2.5 microns in size, oxides of nitrogen,

and/or volatile organic compounds would also have a significant cumulatively considerable net increase,

- In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other proposed projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines identified in *Table 3.1.2-3*,

  - The following guidelines for determining significance must be used for determining the cumulatively considerable net increase during the operational phase:
    - A project that does not conform to the San Diego Regional Air Quality Strategy and/or has a significant direct impact on air quality with regard to operation emissions of particulate matter less than or equal to 10 micrometers in size, particulate matter less than 2.5 microns in size, oxides of nitrogen, and/or volatile organic compounds would also have a significant cumulatively considerable net increase,
    - Projects that cause road intersections to operate at or below level of service E (analysis only required when the addition of peak-hour trips from the proposed project and the surrounding projects exceeds 2,000) and create a carbon monoxide "hot spot" create a cumulatively considerable net increase of carbon monoxide.

- The project would expose sensitive receptors to substantial pollutant concentrations:
  - The project places sensitive receptors near carbon monoxide "hot spots" or creates carbon monoxide "hot spots" near sensitive receptors,
  - Project implementation would result in exposure to toxic air contaminants, resulting in a maximum incremental cancer risk greater than 1 in 1 million without application of toxics best available control technology or a health hazard index greater than 1 would be deemed as having a potentially significant impact;
- The project, which is not an agricultural, commercial, or an industrial activity subject to San Diego Air Pollution Control District standards, as a result of implementation, would either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which would affect a considerable number of persons or the public.

- There would be a significant cumulative contribution to global climate change if the proposed action would conflict with the goals and strategies of Assembly Bill 32 to reduce greenhouse gases to 1990 levels by 2020.

Obstruct or Conflict with Applicable Air Quality Plan

Guidelines for the Determination of Significance

A significant impact would result if

- The project would conflict with or obstruct the implementation of the San Diego Regional Air Quality Strategy or applicable portions of the State Implementation Plan.

Analysis

The SDRAQS is based on population and vehicle trends as well as land use plans developed by the cities and the County as part of the development of their general plans. As such, projects that propose development that is consistent with the growth anticipated by the general plans and SANDAG's growth forecasts would be consistent with the SDRAQS and the SIP. The proposed VHRP would not generate growth, increase population or vehicle usage, or require the alteration of an existing land use designation through amendments to general plans or changes to zoning. The proposed VHRP project includes both construction and maintenance impacts. During project construction, dust control measures (such as watering during grading and stabilization of dirt storage piles) would be implemented in compliance with strategies in the SDRAQS and SIP for attaining and maintaining air quality standards. Maintenance activities would be sporadic and short term in nature. Therefore, the proposed project would not conflict with the applicable land use plans and would not conflict with or obstruct the implementation of the SDRAQS or applicable portions of the SIP. Impacts would be less than significant.

Violate an Existing Air Quality Standard

Guidelines for the Determination of Significance

A significant impact would result if

- The project would result in emissions that would violate any air quality standards or contribute substantially to an existing or projected air quality violation.

Analysis

The SDAPCD has established thresholds in Rule 20.2 for the preparation of air quality impact assessments. The County has also adopted the South Coast Air Quality Management District's

(SCAQMD) screening threshold of 55 pounds per day, or 10 tons per year, as a significant threshold for PM2.5.

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's emissions would not result in a significant impact on air quality. Screening thresholds are included in *Table 3.1.2-3*.

Should emissions exceed these screening-level thresholds, modeling would need to demonstrate that the project's total air quality impacts result in ground-level concentrations that are below the state and federal AAQS, including appropriate background levels.

Construction Emissions

Construction emissions would be generated from two principal sources: (1) engine exhaust of construction equipment and vehicles and (2) particulate emissions from soil disturbance due to grading, earthmoving, and vehicle activity on unpaved roads and in work areas. Particulate pollutants of concern include diesel particulate matter from construction equipment and particulates in dust raised by earthmoving and grading. Additional emissions would be generated by workers commuting to the project sites and vehicle travel on unpaved roadways. Diesel particulate matter contributes to PM2.5 air quality emission levels. Since construction activities would be temporary and short term in nature, impacts associated with PM2.5 emissions during construction would be less than significant.

PM10 generated by construction equipment and vehicles during clearing, grading, and earthmoving for construction of VHRP-eligible projects would generate PM10 in the form of fugitive dust. The contactor(s) for construction of the future projects would be required to minimize land disturbance to the extent feasible, and all active grading areas would be watered at least twice daily to decrease ambient particulate matter. In addition, speed limits would be required to restrict vehicles traveling on unpaved roads, and trucks hauling soil material would be required to be covered. Therefore, impacts associated with PM10 emissions during construction would be less than significant.

The greatest amount of air emissions would be generated from the use of heavy construction equipment, but additional emissions would be generated by workers commuting to the project sites and vehicle travel on unpaved roadways. Traffic associated with workers commuting to and from the project sites would slightly increase CO levels at nearby sensitive receptors or areas immediately adjacent to intersections. The actual locations and actions of future project sites are unknown at this time; therefore, the actual maximum daily emission rates cannot be quantified. However, emissions from these short-term trips would be minimal and would not be anticipated to substantially contribute to an existing or projected air quality violation. The emissions

associated with vehicles traveling on unpaved roadways would be minimal with implementation of the dust control measures discussed above (e.g., watering of construction sites). Since construction activities would be temporary and short term in nature, VHRP-eligible projects would not be anticipated to lead to any exceedances of federal or state AAQS. Therefore, impacts would be less than significant.

Because emissions from other pollutants would be minimal during maintenance activities and would occur for short periods of time, it is assumed that emissions would be below the County's screening threshold of 250 pounds per day for oxides of nitrogen (NO_X) and 75 pounds per day of volatile organic compounds (VOCs). Therefore, impacts would be less than significant.

Operation Emissions

The principal pollutant of concern during maintenance activities would be CO, which would be generated by maintenance vehicles traveling to future VHRP-eligible project sites. The actual locations and actions of future project sites are unknown at this time; therefore, the actual maximum daily emission rates cannot be quantified. However, due to the fact that future maintenance activities would be sporadic and would occur for short periods of time, the emission of CO from maintenance activities is anticipated to be minimal and below the County's screening level. Therefore, impacts would be less than significant.

Since maintenance activities would occur sporadically for short periods of time, VHRP-eligible projects are not anticipated to result in any exceedances of federal or state AAQS for CO. Therefore, impacts would be less than significant.

Because emissions from other pollutants would be minimal during maintenance activities and would occur for short periods of time, it is assumed that emissions would be below the County's screening threshold of 250 pounds per day for NO_X, 75 pounds per day for VOCs, 55 pounds per day for PM2.5, and 100 pounds per day for PM10 and not result in an increase in ambient PM10 concentrations of 50 micrograms per cubic meter (μ/m^3) or greater for the maximum exposed individual. Therefore, impacts would be less than significant.

Sensitive Receptors

Guidelines for the Determination of Significance

A significant impact would result if

- The project would expose sensitive receptors to substantial pollutant concentrations.

Analysis

Sensitive receptors located near future VHRP-eligible sites could include residential uses, schools, resident care facilities, or day-care facilities. If project-related traffic increases around sensitive receptor areas and results in slower speeds, as evidenced by intersections or street segments that operate at unacceptable levels of service, localized violations of ambient health standards could occur. However, traffic generated by the project would be limited to construction and maintenance vehicles traveling to and from future project sites throughout San Diego County. The number of construction and maintenance vehicle trips generated by future VHRP-eligible projects is anticipated to be minimal. In addition, the maintenance trips would be sporadic and short term in nature and would not result in any permanent increase in the number of vehicle trips, which could contribute to long-term exhaust emissions and result in substantial pollutant concentrations. Therefore, the project is not anticipated to create "hot spots" or result in TACs near sensitive receptors. Impacts on sensitive receptors would be less than significant.

Odors

Guidelines for the Determination of Significance

A significant impact would result if

- The project, which is not an agricultural, commercial, or an industrial activity subject to SDAPCD standards, as a result of implementation, would either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which would affect a considerable number of persons.

SDAPCD Rule 51 (Nuisance) prohibits emissions from any material that causes a nuisance for a considerable number of persons or endangers the comfort, health, or safety of any person.

Analysis

Construction Impacts

During construction, diesel equipment operating at the site may generate some nuisance odors; however, since construction equipment would operate at various locations throughout each construction site, and because operation near existing sensitive receptors would be temporary and intermittent, impacts associated with odors during project construction would be less than significant.

Maintenance Activities

Maintenance activities that use diesel equipment would also generate some nuisance odors; however, as mentioned above, operation near existing sensitive receptors would be sporadic and temporary in nature. Therefore, impacts associated with odors during project maintenance activities would be less than significant.

3.1.2.3 *Cumulative Impact Analysis*

Thresholds for the Determination of Significance

A significant cumulative impact would result if

- The project would result in a cumulatively considerable net increase of any criteria pollutant for which the San Diego Air Basin is a non-attainment area under an applicable federal or state ambient air quality standard (including emissions that exceed the screening level threshold for ozone precursors listed in *Table 3.1.2-3)*; or

- There would be a significant cumulative contribution to global climate change if the proposed action would conflict with the goals and strategies of Assembly Bill 32 to reduce greenhouse gases to 1990 levels by 2020.

Analysis

The cumulative study area for the project is the SDAB. The proposed project would be consistent with the SDAPCD SDRAQS, which is a long-range air quality planning document. The projections in the SDRAQS are based on land use assumptions in the adopted community and general plans of the region, on growth projections developed by SANDAG for 2030, and on information from local jurisdictions regarding pending development. The SDRAQS does not address PM10 or PM2.5. County guidance for cumulative PM10 and PM2.5 impacts indicates that a project that has a significant direct impact regarding emissions of PM10 or PM2.5 would also have a significant cumulative impact on air quality. Additionally, even if the direct impacts from a proposed project are less than significant, a project could still have a cumulative impact on air quality if its emissions, in combination with the emissions from other reasonably foreseeable future projects within the proximity of the proposed project, are in excess of the thresholds identified in *Table 3.1.2-3*.

For future VHRP-eligible projects to contribute to cumulative impacts related to PM10 and PM2.5, construction of other projects located within the same monitoring station district that contribute to cumulative impacts would have to occur at the same time. Due to the lack of specific information regarding project location and activities under the VHRP, it is not feasible

to identify reasonably foreseeable projects to assess the potential combined cumulative project impacts from PM10 and PM2.5 emissions. Each project implemented under the VHRP, and all future cumulative projects, would need to comply with grading and/or dust control ordinances of the local jurisdiction in which the projects are located, which would reduce CO, PM10, and PM2.5 emissions. Since future VHRP-eligible projects are not anticipated to result in significant direct impacts, and since these projects are unlikely to occur at the same time and in proximity to other cumulative projects, it is not anticipated that future VHRP-eligible projects would result in substantial contributions to cumulative air quality impacts.

In accordance with guidance from OPR, a quantitative estimate of GHG emissions was made. Although the VHRP activities are not specifically defined at the program level of analysis, it was assumed that site remediation activities, such as trash and debris removal, vegetation removal, sediment removal, flow regime enhancement, revegetation, and retrofitting stormwater facilities, could require the use of three pieces of construction equipment, each operating 130 days per year. These activities would also require the import and export of materials, resulting in on-road hauling, with 92 vehicle miles traveled (VMT) per day. It was assumed that the VHRP programs could include inspections, public outreach, and administrative support that would require automobile and truck usage that would average 215 VMT per day. With these assumptions, annual GHG emissions for the overall VHRP are calculated to be 139 metric tons of CO_2 equivalent ($MTCO_2e$) per year.

The County's draft guidelines propose a screening threshold of 900 $MTCO_2e$ per year. The SCAQMD interim guidelines for stationary sources include a 10,000 $MTCO_2e$ per year screening threshold, and the SCAQMD draft guidelines screening threshold for residential and commercial projects is 3,000 $MTCO_2e$ per year. Although these screening thresholds have not been adopted, they represent appropriate guidance from which it can be concluded that the VHRP would be a small project with respect to GHG emissions, and it would not make a cumulatively considerable contribution to global climate change.

The VHRP would result in the emission of GHGs through the operation of construction equipment, on-road materials hauling, and on-road use of support and administrative vehicles. Estimated annual GHG emissions would be less than the small-project screening levels proposed by the County and other agencies. Therefore, the proposed VHRP would not conflict with the goals and strategies of AB 32 to reduce GHGs to 1990 levels by 2020, and the impact would be less than significant.

3.1.2.4 *Conclusion*

Due to the small scale and the short duration of construction and maintenance in any one location, diesel PM10 impacts would not pose a health risk. Watering to confine dust to project areas and watering of exposed soil at least twice daily would reduce PM10 emissions for land disturbance. The emissions of PM10, CO, and other pollutants are anticipated to be less than their respective screening levels. Odors generated during construction would be short term in nature and less than significant. Therefore, air quality impacts associated with the construction activities of the VHRP would be less than significant.

The project does not propose any change in land use designation or a zone change, nor does the project propose development that would generate growth. Therefore, the VHRP would be consistent with the SDRAQS. Daily emissions of CO from future maintenance activities would not exceed the County's screening levels. The potential future maintenance projects would not generate emissions of PM10 or CO. Therefore, air quality impacts associated with maintenance activities of the VHRP would be less than significant.

Air quality effects of the proposed project are consistent with the SDRAQS for criteria pollutants other than particulates. Based on the fact that future VHRP-eligible projects are not anticipated to result in significant direct impacts and there is a low likelihood of these projects occurring at the same time and in proximity to other cumulative projects, it is not anticipated that future VHRP-eligible projects would result in substantial contributions to cumulative air quality impacts.

The VHRP would result in the emission of GHGs through the operation of construction equipment, on-road materials hauling, and on-road use of support and administrative vehicles. Estimated annual GHG emissions would be less than the small-project screening levels proposed by the County and other agencies. Therefore, the proposed VHRP would not conflict with the goals and strategies of AB 32 to reduce GHGs to 1990 levels by 2020, and the impact would be less than significant.

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Table 3.1.2-1. Ambient Air Quality Standards

Pollutant	Averaging Period	California Standards[1]		Federal[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1 hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 hour	0.07 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM10)	24 hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual arithmetic mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)	24 hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual arithmetic mean	12 µg/m^3	Gravimetric or Beta Attenuation	15.0 µg/m^3		
Carbon Monoxide (CO)	8 hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8 hour (Lake Tahoe)	6ppm (7mg./m^3)		—	—	—
Nitrogen Dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 hour	0.18 ppm (339 µg/m^3)		—		
Sulfur Dioxide (SO_2)	Annual arithmetic mean	—	Ultraviolet Fluorescence	0.03 ppm (80 µg/m^3)	—	Spectrophotometry (Pararosaniline Method)
	24 hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3)	—	
	3 hour	—		—	0.5 ppm (1300 µg/m^3)	
	1 hour	0.25 ppm (655 µg/m^3)		—	—	—
Lead	30-day average	1.5 µg/m^3	Atomic Absorption	—	—	—
	Calendar quarter	—		1.5 µg/m^3	Same as Primary	High-Volume Sampler

Table 3.1.2-1 (Continued)

Pollutant	Averaging Period	California Standards[1]		Federal[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
	Rolling 3-month average[9]	—		0.15 µg/m³	Standard	and Atomic
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per kilometer; visibility of 10 miles or more (0.07–30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70%. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates	24 hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride8	24 hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Notes:
ppm = parts per million
µg/m³ = micrograms per cubic meter
mg/m³ = milligrams per cubic meter

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM10, PM2.5—and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than 1. For PM2.5, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.
   Contact EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume or micromoles of pollutant per mole of gas.
4. Any equivalent procedure that can be shown to the satisfaction of CARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by EPA.
8. CARB has identified lead and vinyl chloride as toxic air contaminants, with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
9. National lead standard, rolling 3-month average; final rule signed October 15, 2008.

Table 3.1.2-2. State and Federal Attainment Designations for San Diego County

Air Pollutant	State Designation	Federal Designation
Ozone (O_3) (1 hour)[1]	Nonattainment	Attainment
Ozone (8 hour)	Nonattainment	Nonattainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Carbon Monoxide (CO)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Respirable Particulate Matter (PM_{10})	Nonattainment	Unclassifiable
Fine Particulate Matter ($PM_{2.5}$)	Nonattainment	Attainment
Lead	Attainment	Attainment
Sulfates[2]	Attainment	N/A
Hydrogen Sulfide[2]	Unclassified[3]	N/A
Vinyl Chloride[2]	Unclassified[3]	N/A
Visibility-Reducing Particles[2]	Unclassified[3]	N/A

Notes:
[1] The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.
[2] No NAAQS have been established for these pollutants.
[3] At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.
Source: SDAPCD 2008 and CARB 2009a.

Table 3.1.2-3. Screening-Level Criteria for Air Quality Impacts

Pollutants	Total Emissions		
	Lbs. per Hour	Lbs. per Day	Tons per Year
Respirable particulate matter (PM_{10})	—	100	15
Fine particulate matter ($PM_{2.5}$)	—	55	10*
Oxides of nitrogen (NO_X)	25	250	40
Oxides of sulfur (SO_X)	25	250	40
Carbon monoxide (CO)	100	550	100
Lead and lead compounds	—	3.2	0.6
Volatile organic compounds (VOC)[1]	—	75**	13.7***

Notes:
*EPA Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards published September 8, 2005. Also used by the SCAQMD.
**Threshold for VOCs based on the threshold of significance for VOCs from the South Coast Air Quality Management District for the Coachella Valley.
*** Threshold of 13.7 tons per year based on 75 lbs/day multiplied by 365 days/year and divided by 2,000 lbs/ton.
Source: County of San Diego 2007f.

Table 3.1.2-4. Summary of Ambient Air Quality Data—San Diego Air Basin 2003–2007

	Units	Ambient Air Quality Standard	2003	2004	2005	2006	2007
Ozone (O_3)							
Maximum 1-hour concentration	ppm	—	0.125	0.129	0.113	0.121	0.134
Days over state standard	—	0.09 ppm	24	12	16	23	21
Maximum 8-hour concentration (state standard)	ppm	—	0.104	0.096	0.090	0.100	0.092
Days over state standard	—	0.070 ppm (state)	59	43	51	68	50
Maximum 8-hour concentration (federal standard)	ppm	—	0.103	0.095	0.089	0.100	0.092
Days over federal standard[1]	—	0.075 ppm (federal)	38	23	24	38	27
Nitrogen Dioxide (NO_2)							
Maximum 1-hour concentration	ppm	—	0.148	0.125	0.109	0.097	0.098
Days over state standard[2]	—	0.18 ppm	0	0	0	0	0
Annual concentration	ppm	0.030 ppm (state) 0.053 ppm (federal)	0.019	0.017	0.015	0.017	0.015
Carbon Monoxide (CO)							
Maximum 8-hour concentration	ppm	—	10.64	4.11	4.71	3.61	5.18
Days over state standard	—	9.0 ppm	1	0	0	0	0
Days over federal standard	—	9 ppm	1	0	0	0	0
Respirable Particulate Matter (PM10)							
Maximum 24-hour conc. (state method)	$\mu g/m^3$	—	284	138	154	133	392
Samples over state standard	—	50 $\mu g/m^3$	24	30	29	27	27
Maximum 24-hour conc. (federal method)	$\mu g/m^3$	—	280	137	155	134	394
Samples over federal standard	—	150 $\mu g/m^3$	1	0	1	0	1
Annual concentration (state method)	$\mu g/m^3$	20 $\mu g/m^3$	52.6	51.7	28.6	54.1	58.6
Fine Particulate Matter (PM2.5)							
Maximum 24-hour conc. (state method)	$\mu g/m^3$	—	239.2	67.3	43.1	63.3	126.2
Maximum 24-hour conc. (federal method)	—	—	239.2	67.3	43.1	63.3	126.2
Samples over federal standard	—	35 $\mu g/m^3$	3	9	4	2	11
Annual concentration (state method)	$\mu g/m^3$	12 $\mu g/m^3$	14.4	14.1	ND	13.1	13.3
Annual concentration (federal method)	$\mu g/m^3$	15.0 $\mu g/m^3$	14.4	14.1	ND	13.1	13.3
Sulfur Dioxide (SO_2)							
Maximum 24-hour concentration	ppm	—	0.011	0.016	0.013	0.009	0.009
Days exceeding state standard	—	0.04 ppm	0	0	0	0	0
Annual concentration	—	0.030 ppm	0.004	0.006	0.005	0.004	0.003

Notes:
ND – insufficient data available to determine; 2008 measurements were not available at the time of analysis.
N/A – data are not available from the listed sources.
[1] The federal ozone standard was revised effective May 27, 2008, to lower the 8-hour standard to 0.075 ppm. The statistics for O_3 reflect the previous federal standard of 0.080 ppm.
[2] The state NO_2 standard was amended February 22, 2007, to lower the 1-hour state standard to 0.18 ppm and establish a new annual state standard of 0.03 ppm. The statistics for NO_2 reflect the previous state standard of 0.25 ppm.
Sources: CARB 2009b

Table 3.1.2-5. Global Warming Potentials and Atmospheric Lifetimes

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO_2)	50–200	1
Methane (CH_4)	12	21
Nitrous Oxide (N_2O)	114	310
HFC-134a	48.3	1,300
PFC: Tetrafluoromethane (CF_4)	50,000	6,500
PFC: Hexafluoroethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: Bonterra 2009.

Table 3.1.2-6. GHG Sources in California

Source Category	Annual GHG Emissions ($MMTCO_2e$)[a]	Percent of Total	Annual GHG Emissions ($MMTCO_2e$)[b]	Percent of Total
Agriculture	27.9	5.8	27.9	6.6
Commercial Uses	12.8	2.6	12.8	3.0
Electricity Generation	119.8	24.7	58.5	13.8
Forestry (excluding sinks)	0.2	0.0	0.2	0.0
Industrial Uses	96.2	19.9	96.2	22.7
Residential Uses	29.1	6.0	29.1	6.9
Transportation	182.4	37.7	182.4	43.1
Other[c]	16.0	3.3	16.0	3.8
Totals	484.4	100.0	423.1	100.0

Notes:
[a] Includes emissions associated with imported electricity, which account for 61.3 $MMTCO_2e$ annually.
[b] Excludes emissions associated with imported electricity.
[c] Unspecified combustion and use of ozone-depleting substances.
Source: Bonterra 2009.

Table 3.1.2-4 (Continued)

Table 3.1.2-7. San Diego County GHG Emissions—2006

Sector	GHG Emissions ($MMTCO_2e$)	Percent of Total Emissions
On-Road Transportation	16.0	46.9
Electricity	8.3	24.3
Natural Gas Consumption	2.9	8.5
Civil Aviation	2.0	5.9
Industrial Processes and Products	1.6	4.7
Other Fuels/Other	1.3	3.8
Off-Road Equipment and Vehicles	1.3	3.8
Waste	0.4	1.2
Agriculture/Wildfires/Land Use	0.6	1.8
Rail Transportation	0.3	0.9
Water-Borne Navigation	0.1	0.3
Sequestration from Land-Cover	(0.7)	-2.1
Total	34	100
Source: Bonterra 2009.		

3.1.3 Geology and Soils

This section assesses general geology and soil conditions in San Diego County and identifies potential geology and soil impacts that could occur as a result of implementation of VHRP-eligible projects. The information used in this analysis is general in nature and is derived from the most readily available information in applicable resource and planning documents. Site-specific geological studies were not performed for the VHRP as the future locations of VHRP-eligible projects are unknown at this time.

3.1.3.1 *Existing Conditions*

Existing Geologic Setting

San Diego County is the southwestern-most county in the United States. The County contains three distinctive geographic provinces. From west to east, these are the Coastal Plain, Interior Upland of Ranges and Valleys (Peninsular Range Province), and Salton (Imperial) Basin. Each province has a particular blend of climate, topography, flora and fauna, and geologic setting.

San Diego County's varied topography creates a wide fluctuation in microclimates, with the coastal plains rising sharply to nearly level terraces, dissected terraces, and rolling hills.

Geologic Issues

The following discussion addresses the potential for faulting and seismicity, ground surface rupture and strong ground motion, liquefaction and seismically induced settlement, landslides, and expansive soils as they relate to the proposed project.

Faulting and Seismicity

The California Mining and Geology Board defines an active fault as one that has had surface displacement within Holocene time (approximately the last 11,000 years). The State Geologist has defined a potentially active fault as one considered to have been active during Quaternary time (the last 1,600,000 years). These definitions are used in delineating earthquake fault zones as mandated by the Alquist-Priolo Act. The intent of this act is to ensure that urban development planned on or near traces of active faults is planned in accordance with seismic safety considerations, thereby reducing potential damage due to fault surface rupture.

The project site is located within seismically active Southern California. San Diego County is traversed by a number of faults and fault zones trending generally to the northwest. Several of these faults are considered active by the California Mining and Geology Board. There are three Alquist-Priolo Fault Zones within San Diego County: Rose Canyon Fault Zone, Elsinore Fault

Zone, and San Jacinto Fault Zone. *Figure 3.1.3-1, Alquist-Priolo Earthquake Zone Map,* identifies the known Alquist-Priolo fault zones within the County. In addition, *Figure 3.1.3-2, Near-Source Shaking Zones,* identifies the seismic shaking buffer area located around the active fault zones.

Subsidence and Ground Surface Rupture

Soil rupture refers to the rolling motion of the ground surface caused by the passage of seismic surface waves. Effects of this nature are likely to be most severe where the thickness of soft sediments varies appreciably under structures.

Liquefaction and Seismically Induced Settlement

Liquefaction is the temporary transformation of water-saturated, cohesionless, fine-grained material from a stable, relatively solid condition to a liquefied state caused by an increase in water pressure. Liquefaction can result from earthquakes, rapid percolation of water, and explosions. Shallow earthquakes with a magnitude of 6.0 or greater typically provide enough ground motion to induce liquefaction by increasing the water pressure in loosely packed, water-saturated sediments. The degree of liquefaction is a function of the geologic setting and the intensity of seismic shaking. Liquefaction usually occurs toward the end of or several minutes after the earthquake and may continue for some time (California Department of Conservation 1990). *Figure 3.1.3-3, Potential Liquefaction Areas,* identifies the locations of potential liquefaction areas throughout San Diego County.

Landslides and Rockfalls

Landslides occur when masses of rock, earth, or debris move down a slope, including rock falls, deep failure of slopes, and shallow debris flows. Landslides are influenced by human activities such as grading and other construction activities, irrigation of slopes, and mining activity; and by natural factors such as precipitation, geology/soil types, surface/subsurface flow of water, and topography. *Figure 3.1.3-4, County Landslide Susceptibility Areas,* identifies the known locations where landslides are subject to occur throughout San Diego County.

Expansive Soils

Certain clay soils expand when they are saturated and shrink when they are dried, and are called expansive soils. These soils can pose a threat to the integrity of improvements that are built on them without proper engineering, especially if the appropriate design measures are not incorporated, and if human activities resulting from the project cause the moisture content of the soils to change. These soils are derived primarily from weathering of feldspar minerals and volcanic ash.

Areas with potential to have expansive soils within San Diego County occur predominantly in the coastal plains, an area of dissected marine terraces and uplands. They can also be found in valleys and on slopes in the foothills and mountains of the Peninsular Ranges Region, and to a lesser extent, in the desert (*Figure 3.1.3-5, Potential Expansive Soil Areas*).

Table 3.3-1, Clay Soils in San Diego County, provides a list of clay soils based on USDA Soil Survey categories (Bowman 1973).

Regulatory Environment

The following section discusses some of the regulations related to geology and soils.

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act)

Projects proposing the development of four or more dwelling units are required to investigate the potential for ground rupture within an Alquist-Priolo zone. Alquist-Priolo zones serve as an official source of notification of the probability of ground rupture during future earthquakes.

Policies and Criteria of the State Mining and Geology Board

The policies and criteria of the State Mining and Geology Board identify the government's responsibilities to prohibit the locations of developments and structures for human occupancy across traces of active faults within Alquist-Priolo zones.

Uniform Building Code

The Uniform Building Code contains the authorized and enforcing procedures and mechanisms to ensure safe building standards. The Uniform Building Code uses a hazard classification system to determine what protective measures are required to protect human health and property, and implements a permit system based on the classification.

California Building Code

The California Building Code is based off of the Uniform Building Code, with the addition of more stringent seismic provisions for hospitals, schools, and essential facilities.

Local Regulations

San Diego County General Plan, Seismic Safety Element Part V

The Seismic Safety Element provides information, policies, and measures to protect the public from risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and slope instability leading to landslides, subsidence, and other geologic hazards.

San Diego County Zoning Ordinance, Fault Displacement Area Regulations

The Fault Displacement Area Regulations identify the allowable development, permitting requirements, and construction limitations within fault rupture zones, as identified by the Alquist-Priolo Act.

San Diego County Grading Ordinance, Chapter 4—Design Standards and Performance Requirements

Chapter 4 of the County's Grading Ordinance outlines several requirements for cut and fill slopes, and reporting requirements that include specific approval of the grading as affected by geologic factors.

3.1.3.2 *Analysis of Project Effects and Determination as to Significance*

The following significance thresholds for geologic hazards are specifically based on criteria provided in the County's Guidelines for Determining Significance (2007g). The Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and were developed using the best available information and with input from experts and the public. All information necessary to properly and thoroughly evaluate project impacts and a determination of impact significance was reviewed in preparing this PEIR. A significant impact would result if any of the following would occur:

- The project proposes any building or structure to be used for human occupancy over or within 50 feet of the trace of an Alquist-Priolo fault or County Special Study Zone fault.
- The project proposes the following uses within an Alquist-Priolo zone which are prohibited by the County:
    - Uses containing structures with a capacity of 300 people or more. Any use having the capacity to serve, house, entertain, or otherwise accommodate 300 or more persons at any one time.
    - Uses with the potential to severely damage the environment or cause major loss of life. Any use having the potential to severely damage the environment or cause major loss of life if destroyed, such as dams, reservoirs, petroleum storage facilities, and electrical power plants powered by nuclear reactors.

  - Specific civic uses. Police and fire stations, schools, hospitals, rest homes, nursing homes, and emergency communication facilities.

- The project site is located within a County Near-Source Shaking Zone or within Seismic Zone 4 and the project does not conform to the Uniform Building Code (UBC).
- The project site has potential to expose people or structures to substantial adverse effects because:
  - the project site has potentially liquefiable soils; and
  - the potentially liquefiable soils are saturated or have the potential to become saturated; and
  - in-situ soil densities are not sufficiently high to preclude liquefaction.
- The project site would expose people or structures to substantial adverse effects, including the risk of loss, injury, or death involving landslides.
- The project is located on a geologic unit or soil that is unstable, or would become unstable as a result of the project, potentially resulting in an on- or offsite landslide.
- The project site lies directly below or on a known area subject to rockfall which could result in collapse of structures.
- The project is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), and does not conform with the Uniform Building Code.

Fault Rupture

Guidelines for the Determination of Significance

A significant impact would result if

- The project proposes any building or structure for human occupancy over or within 50 feet of the trace of an Alquist-Priolo fault or County Special Study Zone fault.
- The project proposes the following uses within an Alquist-Priolo Zone which are prohibited by the County:
  - Uses containing structures with a capacity of 300 people or more. Any use having the capacity to serve, house, entertain, or otherwise accommodate 300 or more persons at any one time.
  - Uses with the potential to severely damage the environment or cause major loss of life. Any use having the potential to severely damage the environment or cause major loss of life if destroyed, such as dams, reservoirs, petroleum storage facilities,

and electrical power plants powered by nuclear reactors.

- Specific civic uses. Police and fire stations, schools, hospitals, rest homes, nursing homes, and emergency communication facilities.

Analysis

The location of VHRP-eligible projects is unknown at this time. *Figure 3.1.3-1* depicts the location of the designated Alquist-Priolo faults within San Diego County. As identified on this map, the majority of the Alquist-Priolo faults are located in the northeastern portion of San Diego County. VHRP-eligible projects would not result in the construction of buildings or structures for human occupancy or that would serve, house, entertain, or otherwise accommodate people. Nor would the project introduce new uses such as dams, reservoirs, petroleum storage facilities, electrical power plants powered by nuclear reactors, or civic uses. Therefore, the project would not expose people or structures to substantial adverse effects, and no significant impacts associated with fault rupture would occur.

Ground Shaking

Guidelines for the Determination of Significance

A significant impact would result if

- The project site is located within a County Near-Source Shaking Zone or within Seismic Zone 4 and the project does not conform to the Uniform Building Code (UBC).

Analysis

The location of VHRP-eligible projects is unknown at this time. *Figure 3.1.3-2* identifies seismic shaking buffers surrounding the Alquist-Priolo fault zones within San Diego County. These buffers identify the areas that would experience near-source shaking from active fault zones. While VHRP-eligible projects may occur within a County Near-Source Shaking Zone or within Seismic Zone 4, they would not result in the construction of any buildings or structures for human occupancy. Therefore, compliance with the California Building Code is not applicable and impacts associated with ground shaking would be less than significant.

Liquefaction

Guidelines for the Determination of Significance

A significant impact would result if

- The project site has potential to expose people or structures to substantial adverse effects because:
    - the project site has potentially liquefiable soils; and
    - the potentially liquefiable soils are saturated or have the potential to become saturated; and
    - in-situ soil densities are not sufficiently high to preclude liquefaction.

Analysis

VHRP-eligible projects could occur throughout San Diego County. *Figure 3.1.3-3* depicts the location of potential liquefaction areas throughout San Diego County. While the specific locations of VHRP-eligible projects are unknown at this time, future activities would not result in the construction of structures or buildings for human occupancy. In addition, implementation of VHRP-eligible projects, other than during temporary construction activities, would not bring people to the project sites and as such would have limited potential to expose people to geologic hazards. Therefore, impacts associated with liquefaction would be less than significant.

Landslides

Guidelines for the Determination of Significance

A significant impact would result if

- The project site would expose people or structures to substantial adverse effects, including the risk of loss, injury, or death involving landslides.
- The project is located on a geologic unit or soil that is unstable, or would become unstable as a result of the project, potentially resulting in an on-or off-site landslide.
- The project site lies directly below or on a known area subject to rockfall which could result in collapse of structures.

Analysis

The location of VHRP-eligible projects is unknown at this time. *Figure 3.1.3-4* depicts the locations of landslides and slide prone formations within San Diego County. VHRP-eligible projects would not result in the construction of buildings or structures for human occupancy. In addition, other than during temporary construction activities, implementation of VHRP-eligible projects would not bring people to construction sites and as such would have limited potential to expose people to geologic hazards. Furthermore, as required by the VHRP and its associated design features (listed in *Chapter 7*), all VHRP-eligible projects would be required to comply

with existing grading and construction standards, which have been developed to reduce potential geologic hazards, including landslides.

Expansive Soils

Guidelines for the Determination of Significance

A significant impact would result if

- The project is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), and does not conform with the Uniform Building Code (UBC).

Analysis

Figure 3.1.3-5, Potential Expansive Soil Areas, depicts the location of potential areas throughout San Diego County that could contain expansive soils. VHRP-eligible projects could occur throughout San Diego County, including within areas identified to have expansive soils, as defined in Table 18-1-B of the UBC. However, VHRP-eligible projects would not result in the construction of any buildings or structures for human occupancy. Therefore, compliance with the UBC is not applicable, and impacts associated with expansive soils would be less than significant.

3.1.3.3 *Cumulative Impact Analysis*

Past, present, and reasonably foreseeable future projects located in the vicinity of individual projects to be implemented under the proposed VHRP may result in significant cumulative impacts on geology and soils. However, implementation of VHRP-eligible projects, which would be required to comply with the design features and mitigation measures outlined in this PEIR, would not construct buildings for human occupancy and would not bring people to individual project sites (other than during construction activities) and would not result in significant impacts related to geology and soils. Therefore, implementation of the VHRP would not make a cumulatively considerable contribution to any identified cumulative impact on geology and soils in San Diego County.

3.1.3.4 *Conclusion*

Implementation of the VHRP would not result in significant impacts associated with geology and soils. Compliance with standard construction practices and applicable regulations would ensure that the construction of water control structures would result in less-than-significant impacts.

Table 3.1.3-1. Clay Soils in San Diego County

Category	Soil Type
Altamont	Atc, AtD, AtD2, AtE, AtE2, AtF
Auld	AwC, AwD, AyE
Boomer	BoC, BoE, BrE, BrG
Bosanko	BsC, BsD, BsE, BtC
Diablo	DaC, DaD, DaE, DaE2, DaF
Diablo-Olivenhain	DoE
Huerhuero	HrC
Las Posas	LpB, LpC, Lc2, Ld2, Le2, LrE, LrE2, LrG
Linne	LsE, LsF
Olivenhain	OhC
Redding	RdC, ReE
Salinas	SbA, SbC, ScA, ScB
Stockpen	SuA, SuB
Source: Bowman 1973	

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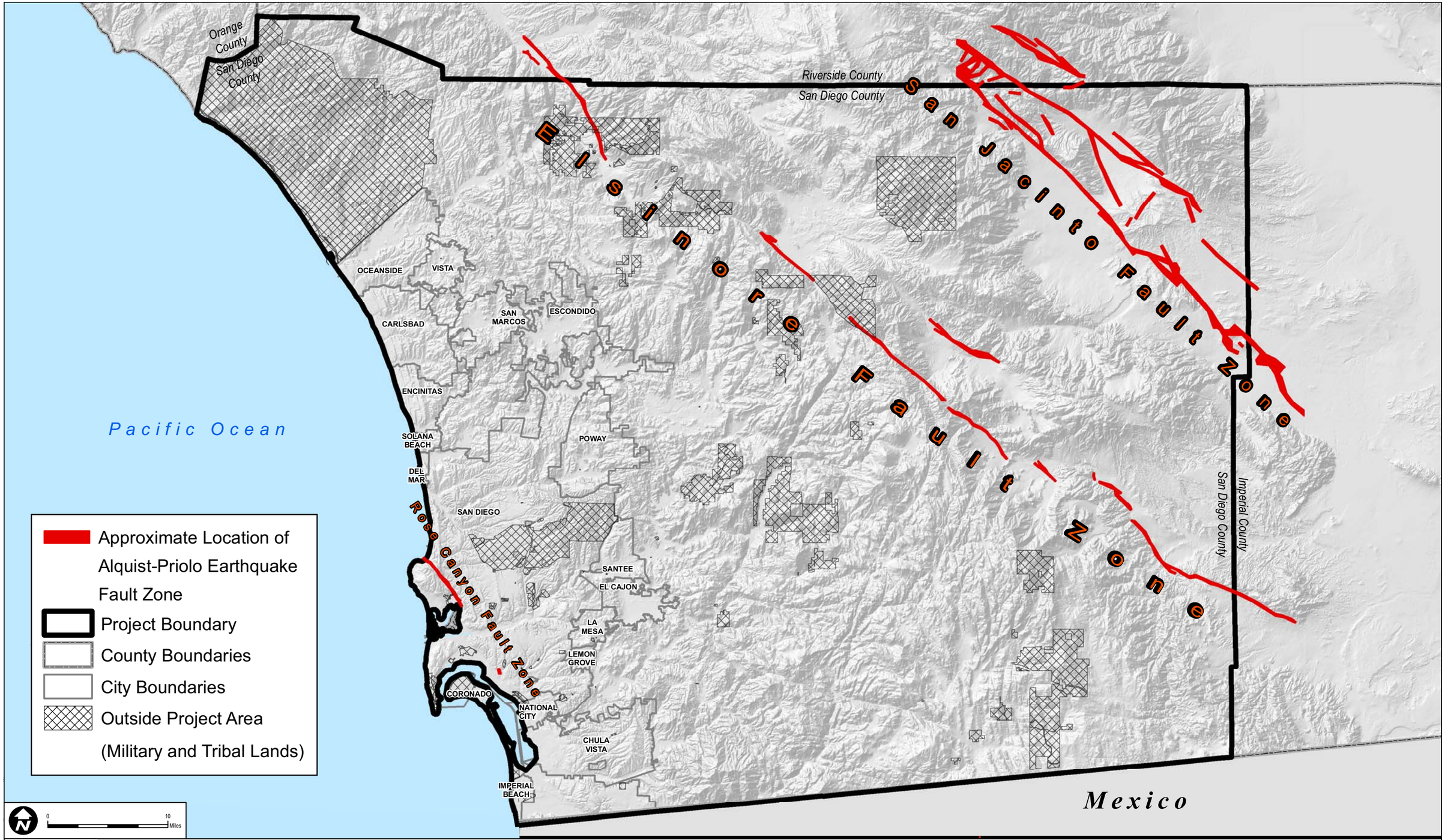
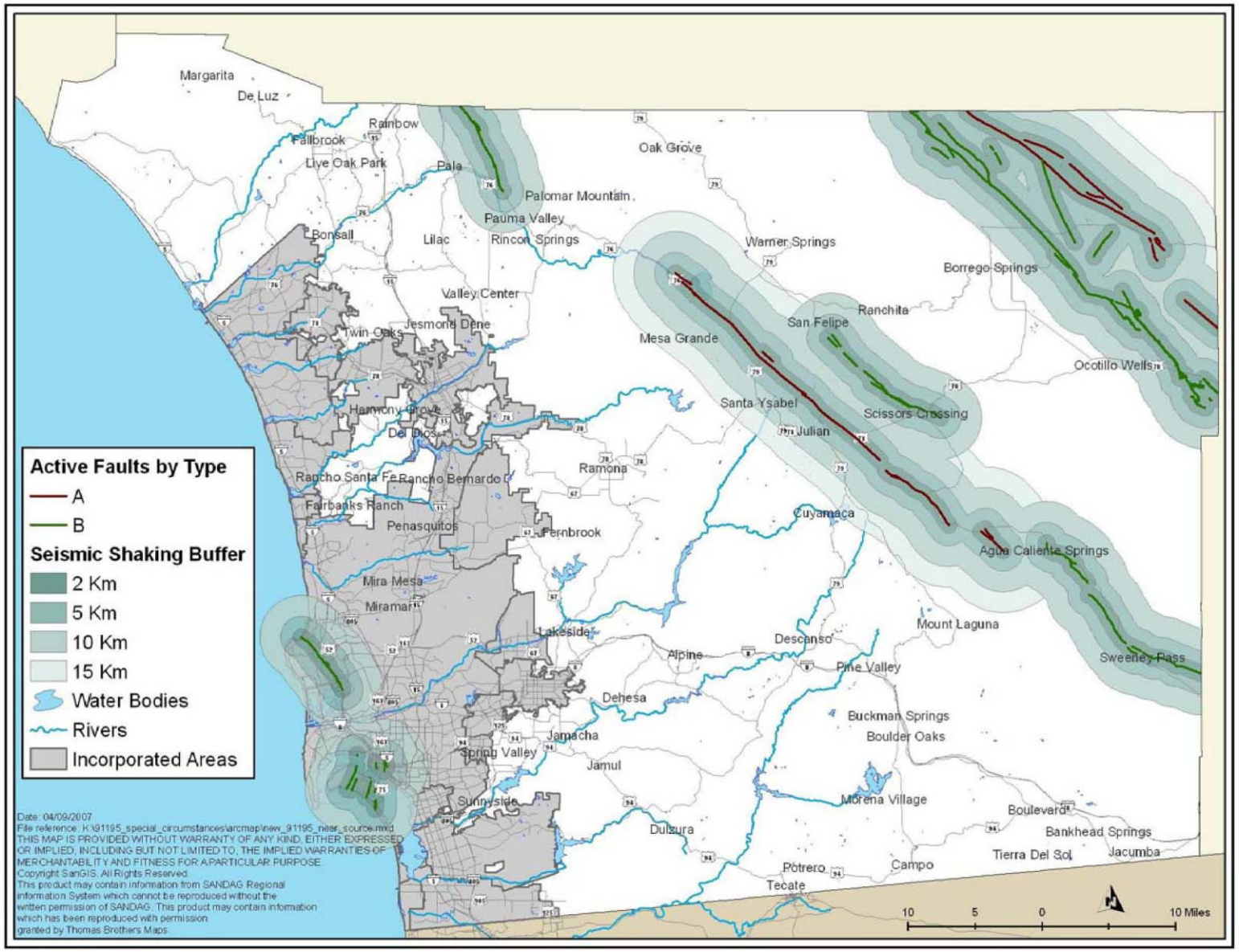


SOURCE: California Department of Conservation 2002.

FIGURE 3.1.3-1

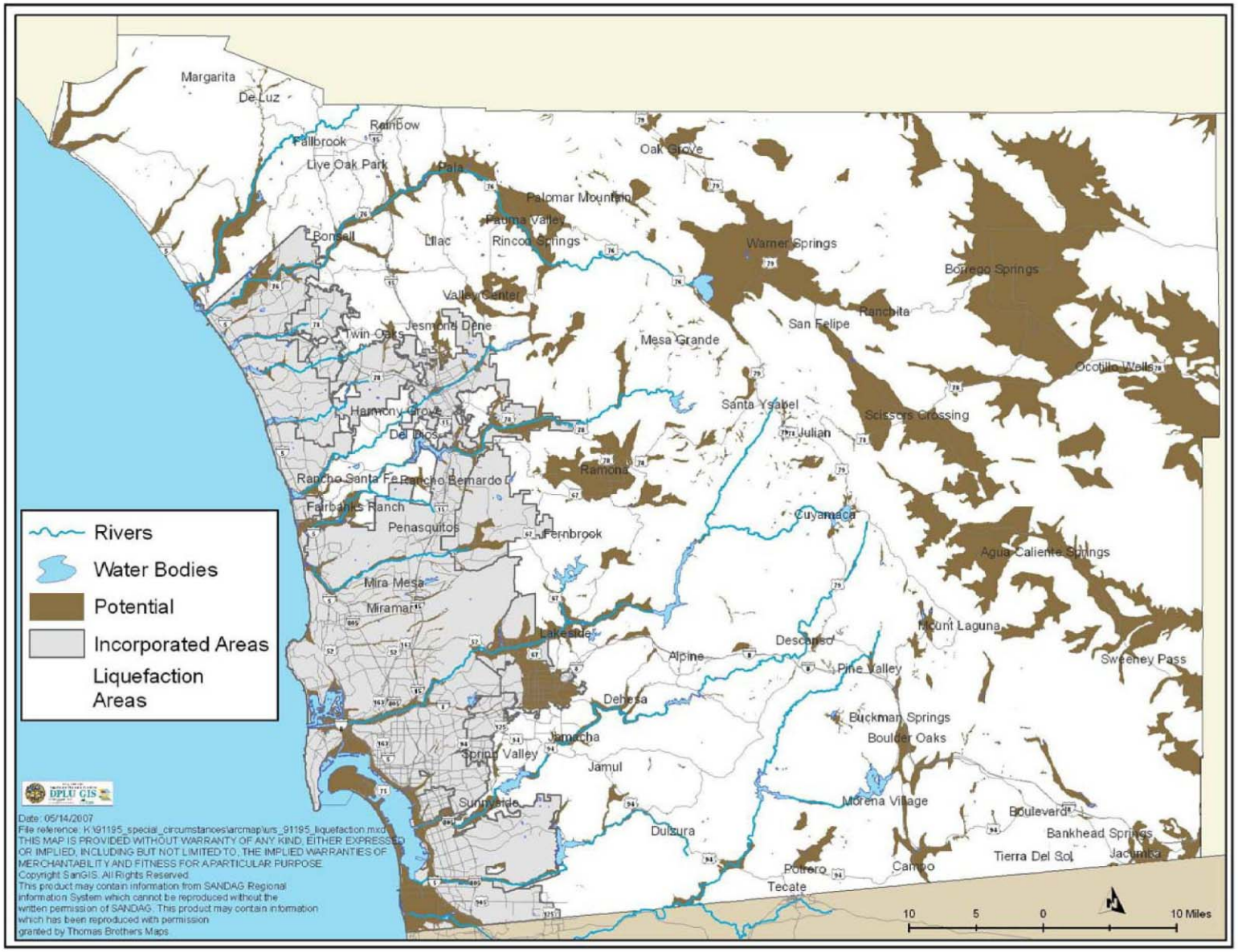
Alquist-Priolo Earthquake Zone Map



SOURCE: County of San Diego Guidelines For Determining Significance Geologic Hazards, July 2007

FIGURE 3.1.3-2

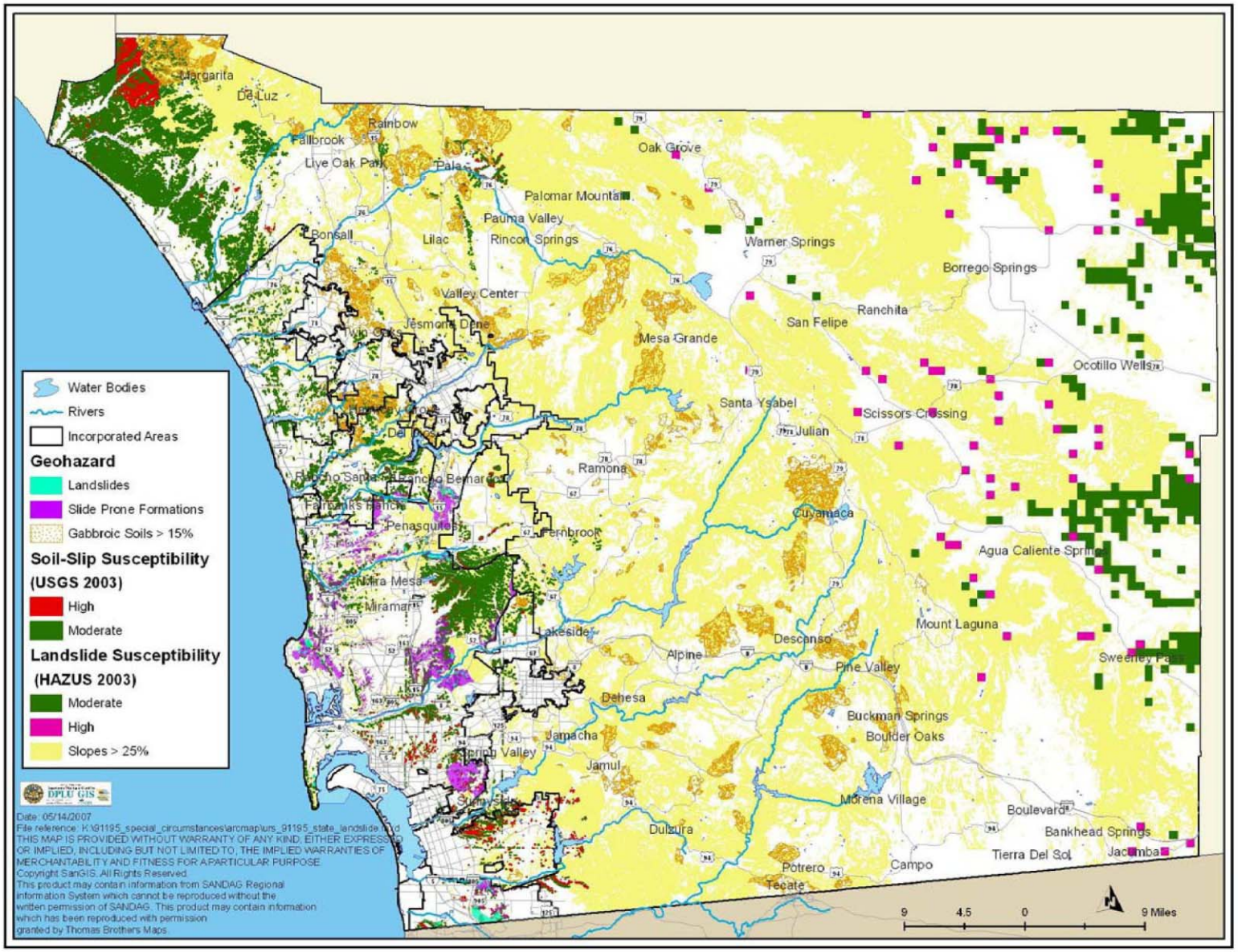
Near-Source Shaking Zones



SOURCE: County of San Diego Guidelines For Determining Significance Geologic Hazards, July 2007

FIGURE 3.1.3-3

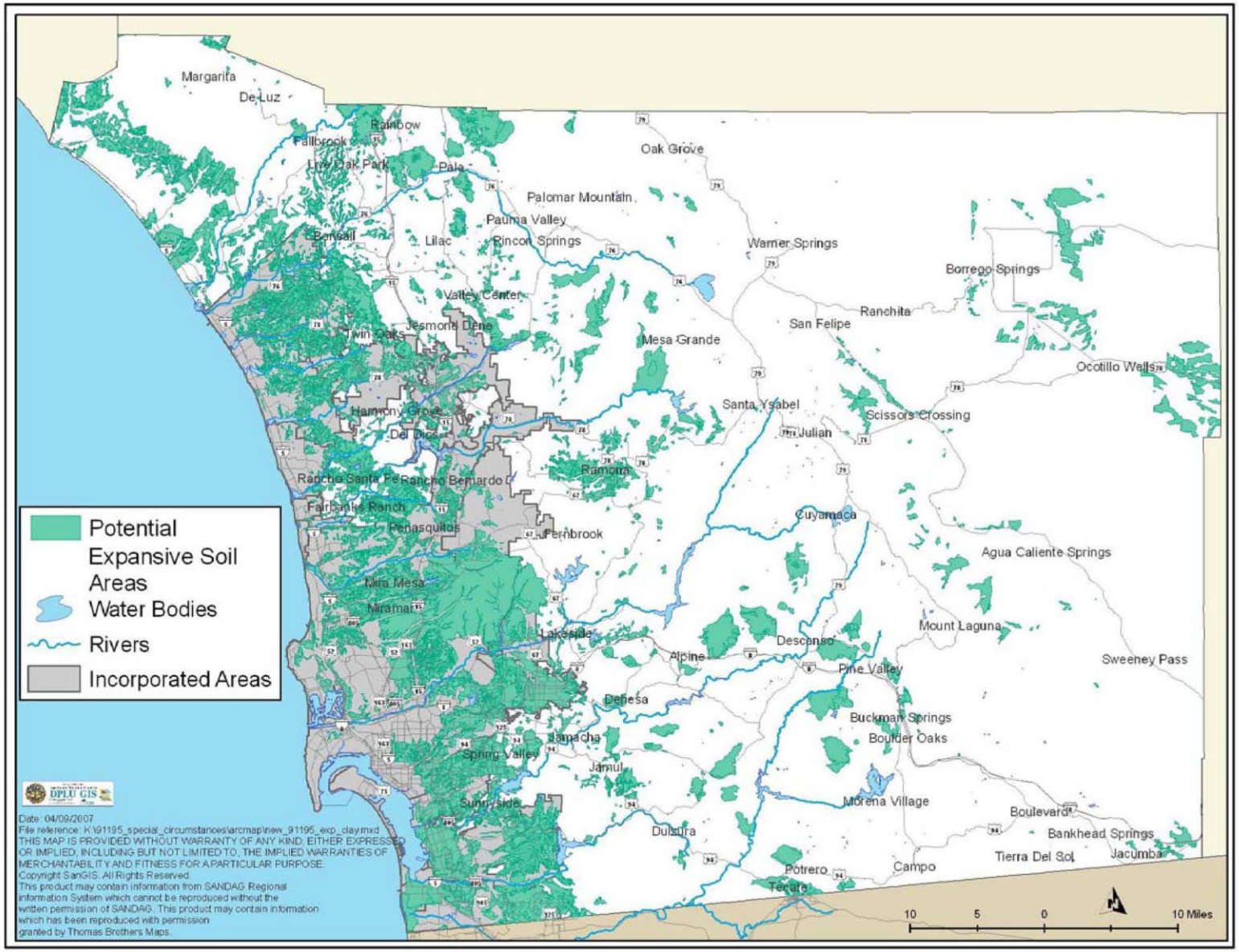
Potential Liquefaction Areas



SOURCE: County of San Diego Guidelines For Determining Significance Geologic Hazards, July 2007

FIGURE 3.1.3-4

County Landslide Susceptibility Areas



SOURCE: County of San Diego Guidelines For Determining Significance Geologic Hazards, July 2007

FIGURE 3.1.3-5

Potential Expansive Soil Areas

3.1.4 Hazards and Hazardous Materials

This section discusses impacts on the public from potential hazards and hazardous materials resulting from the proposed project. In the U.S., hazardous materials and wastes are defined and regulated at the federal, state, and local level. At the federal level, the EPA, the U.S. Occupational Safety and Health Administration, and the Department of Transportation regulate the use and movements of hazardous materials. At the state and local levels, the California Environmental Protection Agency (Cal/EPA) and several regional and local agencies, including the DEH, have developed hazardous material guidelines and regulations. Hazardous wastes are defined in the Code of Federal Regulations (40 CFR 20) and also in the California Code of Regulations (22 CCR 66261.3).

3.1.4.1 *Existing Conditions*

Regulatory Environment

Numerous federal, state, and local regulations have been enacted to prevent or mitigate damage to public health and safety and the environment from the release or threatened release of hazardous substances into the workplace or environment, and to protect human health and environmental resources from existing site contamination. Below is a discussion of some of the regulations relevant to the topics of hazardous substances and site contamination.

Federal Regulations

The Resource Conservation and Recovery Act (RCRA)

RCRA established a framework for national programs to achieve environmentally sound management of both hazardous and non-hazardous wastes. RCRA was designed to protect human health and the environment, reduce/eliminate the generation of hazardous waste, and conserve energy and natural resources. RCRA also promotes resource recovery techniques. The Hazardous and Solid Waste Amendments of 1984 both expanded the scope of the RCRA and increased the level of detail in many if its provisions. The Hazardous Waste Management subchapter of RCRA deals with a variety of issues regarding the management of hazardous materials, including the export of hazardous waste, state programs, inspections of hazardous waste disposal facilities, enforcement, and the identification and listing of hazardous waste.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) of 1986

On October 17, 1986, U.S. President Ronald Reagan signed SARA into law. This act amended the already existing CERCLA “Superfund" law. SARA reflected EPA’s experience in

administering the complex Superfund program during its first six years and made several important changes and additions to the program.

The law authorizes two responses: (1) short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response, and (2) long-term remedial response actions that permanently and significantly reduce the dangers associated with releases or threatened releases of hazardous substances that are serious but not immediately life-threatening. These actions can be conducted only at sites listed on EPA's National Priorities List.

State Regulations

The California Health and Safety Code, Hazardous Materials Release Response Plans and Inventory

Two programs found in Chapter 6.95 of the California Health and Safety Code (H&SC) are directly applicable to the CEQA issue of risk due to hazardous substance release. In San Diego County, these two programs are referred to as the Hazardous Materials Business Plan (HMBP) program and the California Accidental Release Prevention (CalARP) program. The County DEH Hazardous Materials Division is responsible for the implementation of the HMBP and CalARP programs. The programs provide threshold quantities for regulated hazardous substances. When the indicated quantities are exceeded, an HMBP or Risk Management Plan (RMP) is required pursuant to this regulation.

The California Health and Safety Code, Hazardous Waste Control

The Hazardous Waste Control Act regulates the generation, treatment, storage, and disposal of hazardous waste. Hazardous waste is any material or substance that is discarded, relinquished, disposed, or burned, or for which there is no intended use or reuse, and the material or substance causes or contributes to a significant increase in mortality or illness; or the material or substance poses a substantial threat of potential hazard to human health or the environment. Materials or substances include: spent solvents and paints (oil and latex), used oil, used oil filters, used acids and corrosives, and unwanted or expired products (pesticides, aerosol cans, cleaners, etc.). If the original material or substance is labeled "danger," "warning," "toxic," "caution," "poison," "flammable," "corrosive," or "reactive," the waste is very likely to be hazardous.

California Human Health Screening Levels (CHHSLs or "Chisels")

The CHHSLs or "Chisels" are a concentration of 54 hazardous chemicals in soil or soil gas that Cal/EPA considers to be below the thresholds of concern for risks to human health. The CHHSLs were developed for Cal/EPA by the Office of Environmental Health Hazard

Assessment and are contained in its report entitled *Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil* (2005). The thresholds of concern used to develop the CHHSLs are an excess lifetime cancer risk of one in a million (10^{-6}) and a hazard quotient of 1.0 for non-cancer health effects. The CHHSLs were developed using the standard exposure assumptions and chemical toxicity values published by the EPA and Cal/EPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a CHHSL in a soil, soil gas, or indoor air at concentrations below the corresponding CHHSLs can be assumed to not pose a significant health risk to people who may live (residential CHHSLs) or work (commercial/industrial CHHSLs) at the site.

Local Regulations and Programs

San Diego Air Pollution Control District

The mission of the SDAPCD is to protect the public from the effects of air pollution, achieve and maintain air quality standards, foster community involvement, and develop and implement programs that meet state and federal mandates, all while considering the environmental and economic impacts associated with SDAPCD actions. The Asbestos National Emissions Standards for Hazardous Air Pollutants (40 CFR 61, Subpart M) is enforced locally under SDAPCD Regulation XI, Subpart M—Rule 361.145. This regulation requires the owner or operator of a demolition or renovation to submit an asbestos demolition or Renovation Operation Plan at least 10 working days before any asbestos stripping or removal work begins (such as site preparation that would break up, dislodge, or similarly disturb asbestos-containing material).

San Diego County, Site Assessment and Mitigation (SAM) Program

The County SAM Program, a component within the Land and Water Quality Division of the DEH, consists of a variety of staff whose primary goal is to protect human health, water resources, and the environment within San Diego County by providing oversight of assessments and cleanups in accordance with the California H&SC and CCR. SAM's Voluntary Assistance Program also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects, including properties contaminated with hazardous substances.

3.1.4.2 *Analysis of Project Effects and Determination as to Significance*

The following significance thresholds for hazardous materials and existing contamination are specifically based on criteria provided in the County's Guidelines for Determining Significance (2007h). The Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and were developed using the best available information and with input from

experts and the public. All information necessary to properly and thoroughly evaluate project impacts and a determination of impact significance was reviewed in preparing this PEIR. A significant impact would result if any of the following would occur:

- The project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC and the project will not be able to comply with applicable hazardous substance regulations.
- The project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within one-quarter mile of the facility.
- The project is located on or within one-quarter mile of a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5 or is otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.
- The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burnsites) and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 1,000 feet of a Formerly Used Defense Site (FUDS) and it has been determined that it is probable that munitions or other hazards are located on site that could represent a significant hazard to the public or the environment.
- The project could result in human or environmental exposure to soils or groundwater that exceed EPA Region 9 Preliminary Remediation Goals (PRGs), Cal/EPA CHHSLs, or Primary State or Federal Maximum Contaminant Levels (MCLs) for applicable contaminants; and the exposure would represent a hazard to the public or the environment.
- The project will involve the demolition of commercial, industrial, or residential structures that may contain asbestos-containing material (ACM), lead-based paint (LBP), and/or other hazardous materials and as a result, the project would represent a significant hazard to the public or the environment.

Hazardous Substance Handling

Guidelines for the Determination of Significance

A significant impact would result if

- The project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC and the project will not be able to comply with applicable hazardous substance regulations.
- The project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within one-quarter mile of the facility

Analysis

VHRP-eligible projects would not involve the construction of buildings, facilities, or other uses or operations that involve the generation, handling, or storage of hazardous substances in excess of the threshold quantities listed in H&SC Chapters 6.5, 6.7, and 6.95, respectively. In addition, VHRP-eligible projects would not involve the construction of facilities that would handle regulated substances subject to CalARP RMP requirements. The VHRP will fund projects throughout San Diego County that reduce mosquito breeding habitat at wetland areas and water treatment design facilities. VHRP-eligible projects would not store or handle hazardous substances on site during operations. Equipment fuel would be used on site during construction and maintenance activities but not in excessive quantities. Fuel would not be stored on site during construction. Therefore, impacts would be less than significant.

Projects with Existing Onsite Contamination

Guidelines for the Determination of Significance

A significant impact would result if

- The project is located on or within one-quarter mile of a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5, or is otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.

- The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burnsites) and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 250 feet of a boundary of a parcel identified as containing burn ash (from the historic burning of trash); and as a result, the project would create a significant hazard to the public or the environment.
- The project is proposed on or within 1,000 feet of a FUDS and it has been determined that it is probable that munitions or other hazards are located on site that could represent a significant hazard to the public or the environment.
- The project could result in human or environmental exposure to soils or groundwater that exceed EPA Region 9 PRGs, Cal/EPA CHHSLs, or primary State or Federal Maximum Contaminant Levels (MCLs) for applicable contaminants and the exposure would represent a hazard to the public or the environment.
- The project will involve the demolition of commercial, industrial, or residential structures that may contain ACM, LBP and/or other hazardous materials; and as a result, the project would represent a significant hazard to the public or the environment.

Analysis

As stated previously, the location of VHRP-eligible projects is unknown at this time; therefore, a search of federal, state, and local databases regarding a specific project area and its surroundings could not be conducted for this PEIR. While future projects may result in ground-disturbing activities, these activities would occur within established wetland areas, effluent treatment ponds, flood control facilities, and stormwater management facilities. Although projects could occur on or within 0.25 mile of a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5, or is otherwise known to have been the subject of a release of hazardous substances, the proposed project does not propose any activities that would result in a significant hazard to the public or the environment. Other than for temporary construction activities, implementation of VHRP-eligible projects would not bring people to individual project sites. Furthermore, construction activities associated with VHRP-eligible projects would be required to comply with federal, state, and local regulations governing worker safety, the preparation of emergency response programs, and the use of controls to limit exposure to workers. In addition, VHRP-eligible projects would comply with the applicable federal, state, and local regulations governing the treatment, storage, and disposal of hazardous wastes.

As part of the VHRP and its associated project design features (listed in *Chapter 7*), if VHRP-eligible projects are located on or within the vicinity of a burn ash site, then the project will be required to comply with burn ash site remediation requirements provided by the California

Integrated Waste Management Board (CIWMB) and California Department of Toxic Substances Control. Remediation requirements stipulate the approval of a Post Closure Maintenance and Monitoring Plan. In addition, if a project is located on or within the vicinity of a FUDS, then the project must obtain an RCRA Emergency Permit (if unexploded ordnance is unexpectedly found) or obtain approval of a Removal Action Workplan/Remedial Action Plan to remediate the site prior to construction of a VHRP-eligible project. Compliance with these regulations will ensure that the construction of a project will not result in a significant hazard to the public or the environment. Therefore, impacts associated with the location of hazardous materials sites would be less than significant.

VHRP-eligible projects would not construct buildings for human occupancy or demolish existing commercial, industrial, or residential buildings. VHRP-eligible projects will be designed to reduce mosquito breeding habitat through wetland and water quality design, water management, and vegetation removal, which would not require construction or demolition of structures. In addition, the construction of VHRP-eligible projects would not require linear excavation. However, project construction may involve light grading to increase steep edges and minimize vegetation at wetland margins. Grading would not expose construction workers or the environment to soils or groundwater with contaminant levels exceeding the applicable federal and state contaminant level thresholds. Other than during construction, the implementation of VHRP-eligible projects would not bring people to individual project site. In addition, in conformance with the VHRP and its associated design features (listed in *Chapter 7*), all VHRP-eligible projects would be required to comply with all applicable federal and state policies, regulations, thresholds, etc. Therefore, impacts associated with human and environmental exposure to hazardous soils and groundwater would be less than significant.

3.1.4.3 *Cumulative Impact Analysis*

Past, present, and reasonably foreseeable future projects located in the vicinity of individual projects to be implemented under the proposed VHRP may result in significant cumulative impacts related to hazards and hazardous materials. However, implementation of VHRP-eligible projects, which would be required to comply with the design features and mitigation measures outlined in this PEIR (including all applicable federal, state, and local laws and regulations governing the use, storage, and transportation of hazardous materials), would not result in a significant adverse impact related to hazardous materials. In addition, individual projects implemented under the VHRP, when analyzed in conjunction with any potential past, present, or reasonably foreseeable future projects, would not make a cumulatively considerable contribution to any identified cumulative impact related to hazards and hazardous materials in San Diego County. Therefore, cumulative impacts would be less than significant.

3.1.4.4 *Conclusion*

Implementation of the VHRP would result in less-than-significant impacts associated with hazards and hazardous materials, and no mitigation measures would be required.

3.1.5 Mineral Resources

This section assesses mineral resources in San Diego County and identifies potential impacts on mineral resources that could occur as a result of implementation of VHRP-eligible projects. The information used in this analysis is general in nature and is derived from the most readily available information in applicable resource and planning documents.

3.1.5.1 *Existing Conditions*

Regulatory Environment

This section discusses some of the regulations relevant to mineral resources.

State Regulations

Surface Mining and Reclamation Act

Urban preemption of prime mineral deposits and conflicts between mining and other uses throughout California led to passage of the Surface Mining and Reclamation Act of 1975 (SMARA), which established policies for the conservation, development, and reclamation of mineral land, and contains specific provisions for the classification of mineral lands by the State Geologist.

SMARA requires all cities and counties to incorporate in their general plans the mapped designations approved by the Division of Mines and Geology (DMG). These designations are to include lands categorized as Mineral Resources Zones (MRZ). MRZ classifications are set forth in guidelines developed by the State Mining and Geology Board (SMGB, *Guidelines for Classification and Designation of Mineral Lands*, 1998) and are used to communicate information concerning the existence of mineral resources. Most of the production and consumption of aggregates within San Diego County is within the westernmost one-third of the County (the P-C Region discussed above). Roughly two-thirds of the County remains unmapped, because when SMARA was passed in 1975 only lands designated as urban areas (i.e., P-C Regions) were required to be classified since those minerals were in danger of being lost to development. In 1980, SMARA was amended to provide for the classification of non-urban areas as well. However, the non-urban portions of San Diego County have not yet been classified by the SMGB.

The following guidelines are presented in the mineral land classification for the San Diego County region:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.

- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that there is a high likelihood for their presence.
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assignment to any other MRZ.

Section 2762(d) of SMARA provides specific noticing requirements for lead agencies, prior to permitting a use that would preclude future extraction of identified mineral resources defined as either: (1) the potential to extract minerals in MRZ-2 lands, or (2) land designated in a lead agency's general plan as having important minerals to be protected. Prior to permitting a use that would threaten the potential to extract minerals in either of these two areas, the lead agency must prepare a statement specifying its reasons for permitting the proposed use. The statement is required to be forwarded to the State Geologists and State Mining and Geology Board for review and is required to comply with the public review requirements of CEQA. The public review period for the mineral resources portion of the notice must be no less than 60 days from the date of notice. The lead agency is required to prepare a written response to the comments received. In particular, when a lead agency's position is at variance with the recommendations and objections raised in comments, the written response must address in detail why specific comments and suggestions were not accepted.

Local Regulations

Land Use Element (Part II) of the San Diego County General Plan

The County of San Diego Regional Land Use Element of the General Plan establishes designated areas considered unsuitable for urban development due to environmental sensitivity and also designates extractive areas containing economically extractable mineral resources.

Conservation Element (Part X) of the San Diego County General Plan

The County of San Diego Conservation Element of the General Plan establishes estimation for the availability, location, and value of local mineral resources. The Conservation Element also addresses the protection and preservation of mineral deposits (including gemstone deposits) and historic mining sites for commercial extraction and for scientific, educational, and recreational use.

The Special Purpose Regulation (S82), Extractive Use Designation (25), and Impact Sensitive Land Use Designation (24) are Zoning and Land Use designations that the County uses to group lands of known, existing, and potential mineral resources.

The S82 Extractive Use Regulation identifies and creates zones within the County where mining and quarrying uses are permitted. While the S82 designates these mineral resource zones, the General Plan Extractive Use Designation (25) and Impact Sensitive Land Use Designation (24) are applied to areas containing economically extractable mineral resources. In some cases, Impact-Sensitive Land Use Designation (24) is not always applied as a designation for mineral resources and can be used to designate resources, such as for the protection of biological habitat or other environmentally sensitive resources.

Grading, Clearing, and Watercourses Ordinance

The County Code (Title 8, Division 7, Chapter 7, section 87.701 et seq.) implements SMARA.

Mineral Resources in the San Diego Region

The lands classified in San Diego County are known as the Western San Diego County Production-Consumption (P-C) Zone and extend from the southern Camp Pendleton boundary, south to the International Border, and from the Pacific Ocean to an irregular boundary about one-third of the way across the County. The P-C Zone takes in all of the incorporated areas of the County, and the unincorporated communities of Jamul, Alpine, Ramona, Valley Center, and Rainbow. Along the San Luis Rey River the boundary extends to Pauma Valley. The remaining lands to the east are referred to as uncategorized zones (County of San Diego 2008b).

San Diego County contains numerous mineral resources and mineral resource extraction sites. Heavily mined resources such as sand and gravel found throughout the County are important to the construction trade and the regional economy. Permitted Portland cement concrete (PCC) aggregate pits can be found throughout the County, from Otay Mesa to Valley Center. Other resources, such as gold, were once plentiful but now occur in limited quantities. Lesser-known resources can also be found throughout the County.

Within the western San Diego region, the majority of MRZ-2 zones are located in alluvial areas geologically characterized by the presence of younger river channel, floodplain, and terrace deposits that have eroded from older bedrock units, been transported, and then redeposited. These deposits generally consist of naturally loose mixtures of sands and rounded gravels. As stated previously, sand and gravel are used as aggregate in the production of PCC and asphaltic concrete for construction. According to the County General Plan Conservation Element, roughly two-thirds of the available sand in San Diego County is located in the San Luis Rey River area, while the remaining one-third is located in rivers of the Metropolitan Market Area (County of San Diego 2002). In addition to the construction-quality sand deposits in the San Luis Rey River and Metropolitan Market Area, deposits are also located in the mountain and desert regions. While deposits of sand, gravel, and stone are readily available within the County, extraction of

these materials is often difficult due to objections raised by nearby residents concerned with the noise and dust associated with mining activities.

The majority of western San Diego County is mapped as an MRZ-3 zone (California Department of Conservation 1996), although there are pockets of MRZ-1 and MRZ-2 zones. MRZ-3 zones geologically consist of older bedrock units, including crystalline and metavolcanic rocks. These areas are often located in rugged mountain terrain isolated from existing development and infrastructure. Minerals in these areas can be crushed to yield PCC-grade aggregate, provided the processed minerals possess the appropriate chemical characteristics (sand produced by crushing rock produces a concrete that is less fluid than traditional construction-quality sand deposits). Despite the costs associated with crushing, crushed rock is the primary source of locally mined PCC aggregate. Local sand and gravel mines are unable to produce large quantities of PCC sand due primarily to the environmental and regulatory constraints of permitting and extracting materials from instream and floodway areas. As previously mentioned, the lands to the east are referred to as uncategorized.

3.1.5.2 *Analysis of Project Effects and Determination as to Significance*

The following significance thresholds for mineral resources are specifically based on criteria provided in the County's Guidelines for Determining Significance (2007j). The Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and were developed using the best available information and with input from experts and the public. All information necessary to properly and thoroughly evaluate project impacts and a determination of impact significance was reviewed in preparing this PEIR. A significant impact would result if any of the following would occur:

- The project is:
    - On or within the vicinity (generally up to 1,300 feet from the site) of an area classified as MRZ-2; or
    - On land classified as MRZ-3; or
    - Underlain by Quaternary alluvium; or
    - On a known sand and gravel mine, quarry, or gemstone deposit;

<u>AND</u>

The project will result in the permanent loss of availability of a known mineral resource that would be of value to the region and the residents of the state;

<u>AND</u>

The deposit is mineable, processable, and marketable under the technologic and economic conditions that exist at present, or which can be estimated to exist in the next 50 years and

meets or exceeds one or more of the following minimum values (in 1998 equivalent dollars):

- Construction materials (sand and gravel, crushed rock) — $12,500,000
- Industrial and chemical materials (limestone, dolomite, and marble [except where used as construction aggregate]; specialty sands, clays, phosphates, borates, and gypsum; feldspar, talc, building stone and dimension stone) — $2,500,000
- Metallic and rare minerals (precious metals [gold, silver, platinum], iron and other ferroalloy metals, copper, lead, zinc, uranium, rare earth gemstones and semi-precious materials, and optical-grade calcite) — $1,250,000

- The project would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Mineral Resources

Analysis

VHRP-eligible projects could potentially be located on or within the vicinity of lands classified as MRZ-2 or MRZ-3. In addition, project sites could potentially be underlain by Quaternary alluvium, or be located on a known sand and gravel mine, quarry, or gemstone deposit. In accordance with the VHRP and the associated design features (listed in *Chapter 7*), as projects are proposed, they would be required to assess the potential for any onsite occurrences of a known mineral resource of value to the region. If a project proposing earth-moving activities is located within a designated MRZ-2 or MRZ-3 zone or on land underlain by Quaternary alluvium, then earth-moving activities could result in the loss of a known mineral resource. However, according to the VHRP guidelines, earth-moving activities such as grading and dredging would occur as part of efforts to minimize vegetation along wetland margins, maximize deep open water areas, and redesign/construct water control structures. VHRP-eligible projects would not involve major grading or dredging activities that would result in the loss of a significant quantity of a known mineral resource. While VHRP-eligible projects could be located in alluvial areas known to contain loose sands and gravel used in the production of PCC, the projects would not affect the potential for future mining activities at these sites. Projects

would not introduce incompatible uses to the existing area, as projects are intended to reduce mosquito breeding habitat primarily through manipulation of the onsite water environment.

Implementation of the proposed project would not result in the loss of MRZ-2 or MRZ-3 areas through the placement of these areas into easements or open space, which would prohibit extraction activities. It should be noted that not all projects will involve earthwork. For projects involving earthwork, activities would be relatively minor and would not result in the loss of significant quantities of MRZ-2 resources, MRZ-3 resources, or Quaternary alluvium deposits. Therefore, implementation of the proposed project would result in less-than-significant impacts regarding the loss of availability of a known mineral resource of value to the region and residents.

Designated mineral resource recovery sites (as delineated on local general plans, specific plans, or other land use plans) could potentially be located within or adjacent to a VHRP-eligible project area. However, as discussed above, not all VHRP-eligible projects would involve earth-moving activities that would impact mineral resources. For projects where earthwork is proposed, activities would consist of light grading and/or dredging. Earth-moving activities would not result in the closure of a mineral resource recovery site nor prohibit future extraction opportunities. Quarries and other extraction operation sites would likely not be ideal locations for VHRP projects due to the disturbed nature of quarries and general lack of standing water elements. Additionally, implementation of the proposed project would not result in the loss of MRZ-2 areas through the placement of these areas into easements or open space, which would effectively prohibit extraction activities within project areas. Typically, MRZ-2 areas include an operating mine or areas where extensive sampling has indicated the presence of a significant mineral deposit. Therefore, implementation of the proposed project would not result in the loss of the availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

3.1.5.3 *Cumulative Impact Analysis*

Although the mountain and desert regions of eastern San Diego County are known to contain sand, gravel, and granitic rock deposits suitable for PCC aggregate, extraction activities in this area would not be feasible due to haul distances and lack of infrastructure. County-designated mineral resource recovery sites and MRZ-2 zoned lands are located within western San Diego County. Past, present, and reasonably foreseeable future projects located in the vicinity of individual projects to be implemented under the proposed VHRP may result in significant cumulative impacts on mineral resources. However, implementation of VHRP-eligible projects, which would be required to comply with the design features and mitigation measures outlined in this PEIR, would not preclude future extraction of mineral resources and would not result in significant impacts related to mineral resources. Therefore, implementation of the VHRP would

not make a cumulatively considerable contribution to any identified cumulative impact on mineral resources in San Diego County.

3.1.5.4 *Conclusion*

Implementation of the proposed project would not adversely affect the availability of a known mineral resource that would be of value to the region or the state, or result in the loss of a locally important mineral resource recovery site. Impacts on mineral resources would be less than significant.

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3.1.6 Transportation and Traffic

This section assesses general transportation and traffic conditions in San Diego County and identifies potential transportation and traffic impacts that could occur as a result of implementation of VHRP-eligible projects. The information used in this analysis is general in nature and is derived from the most readily available information in applicable resource and planning documents. Site-specific traffic studies were not performed for the VHRP as the future locations of VHRP-eligible projects are not known at this time.

3.1.6.1 *Existing Conditions*

There are numerous locations within San Diego County for which the removal of mosquito breeding habitat and eradication of mosquito species is necessary to control the spread of vector-borne diseases. At this time, the location of VHRP-eligible projects is unknown. As a result, it is not possible to provide more specific information regarding existing transportation and circulation conditions that could be affected by VHRP activities.

Regulatory Environment

This section discusses some of the regulations relevant to transportation and traffic.

Local Regulations

Public Facilities Element (Part XII) of the County of San Diego General Plan

The County of San Diego General Plan Public Facilities Element established policies and implementation measures regarding the assessment and mitigation of traffic impacts on new development. One of the goals of the Public Facilities Element (PFE) is to provide "a safe, convenient, and economical integrated transportation system including a wide range of transportation modes" (PFE, page XII-4-18). The PFE also identified an objective in the Transportation Section to provide a "Level of Service C or better on County Circulation Element roads" (PFE, page XII-4-18). The PFE, however, established Level of Service (LOS) D as an offsite mitigation limit for discretionary projects. When an existing LOS is already D, "a LOS of D may be allowed" (PFE, page XII-4-18). According to the PFE, projects that significantly increase congestion on roads operating at LOS E or LOS F must provide mitigation. According to the PFE, this mitigation can consist of a fair share contribution to an established program or project to mitigate the project's impacts. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Sections 15091 and 15093 of the State CEQA Guidelines to approve the project as proposed.

3.1.6.2 *Analysis of Project Effects and Determination as to Significance*

The following significance thresholds for transportation and traffic are specifically based on criteria provided in the County's Guidelines for Determining Significance (2007i). The Guidelines for Determining Significance were adapted from Appendix G of the CEQA Guidelines and were developed using the best available information and with input from experts and the public. All information necessary to properly and thoroughly evaluate project impacts and a determination of impact significance was reviewed in preparing this PEIR. A significant impact would result if any of the following would result:

- The additional or redistributed average daily trips (ADT) generated by the proposed land development project will cause onsite Circulation Element Roads to operate below LOS C during peak traffic hours except within the Otay Ranch project as defined in the Otay Subregional Plan, Volume 2. PFE, Implementation Measure 1.1.2.
- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or would cause a Circulation Element Road or State Highway to operate at LOS E or LOS F, as identified in *Table 3.1.6-1, Measures of Significant Project Impacts on Congestion of Road Segments: Allowable Increases on Congested Road Segments,* or
- The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity.
- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or would cause a signalized intersection to operate at a LOS E or LOS F as identified in *Table 3.1.6-2, Measures of Significant Project Impacts on Congestion on Intersections: Allowable Increases on Congested Intersections.*
- The additional or redistributed ADT generated by the proposed project will add 20 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D, or
- The additional or redistributed ADT generated by the proposed project will add 20 or more peak hour trips to a critical movement or an unsignalized intersection currently operating at LOS E, or
- The additional or redistributed ADT generated by the proposed project will add 5 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or

- The additional or redistributed ADT generated by the proposed project will add 5 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or
- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance, or other factors, it is found that the generation rate is less than those specified above, and would significantly impact the operations of the intersection.
- The project generates ADT in excess of the standards established for two-lane highways with signalized intersection spacing over 1 mile, as identified in *Table 3.1.6-3, Measures of Significant Project Impacts on Congestion: Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Over 1 Mile.*
- The project results in delay in excess of the standards established for two-lane highways with signalized intersection spacing under 1 mile, as identified in *Table 3.1.6-4, Measures of Significant Project Impacts on Congestion: Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Under 1 Mile.*
- The project results in significant increases in congestion on ramps, as identified Table *3.1.6-5, Measures of Significant Project Traffic Impacts for Circulation Element Roads, Signalized Intersections, and Ramps.*
- The project generates over 2,400 ADT or 200 peak hour trips and is in noncompliance with the traffic study requirements of SANDAG's Congestion Management Plan.
- Design features/physical configurations of access roads constructed by the proposed project adversely affect the safe transport of vehicles along the roadway.
- The percentage or magnitude of traffic on the road due to the proposed project may affect the safety of the roadway.
- The physical conditions of the project site and the surrounding area, such as curves, slopes, walls, landscaping, or other barriers, may result in vehicle conflicts with other vehicles or stationary objects.
- The project does not conform to the requirements of the private or public road standards, as applicable.
- Design features/physical configurations on a road segment or at an intersection may adversely affect the visibility of pedestrians or bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.
- The amount of pedestrian activity at the project access points may adversely affect pedestrian safety.

- The project may result in the preclusion of substantial hindrance of the provision of a planned bike lane or pedestrian facility on a roadway adjacent to the project site.
- The percentage or magnitude of increased traffic on the road due to the proposed project may adversely affect pedestrian and bicycle safety.
- The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers may result in vehicle/pedestrian, vehicle/bicycle conflicts.
- The project does not conform to the requirements of the private or public road standards, as applicable.
- The project may result in a substantial increase in pedestrian or bicycle activity without the presence of adequate facilities.
- The project cannot demonstrate compliance with the standards set forth by the County Zoning Ordinance (Sections 6750–6799) and the County Off-Street Parking Design Manual.
- The project cannot demonstrate conformance with the applicable alternative transportation policies in the PFE.

Other than the occasional maintenance worker trip, VHRP-eligible projects would not generate traffic during maintenance activities. Construction activities would generate a small amount of traffic on project-area roadways and would consist of construction worker vehicles and equipment. Only projects proposing earth-moving activities would require heavy, drivable equipment. The last eight bulleted thresholds (18–26) were determined not to be applicable to the proposed project as pedestrians and bicyclists would not be traveling to VHRP-eligible project sites, as parking is not required as part of VHRP-eligible projects, and alternative transportation policies are not relevant to VHRP-eligible projects. Therefore, these thresholds are not discussed further.

Road Segments

Guidelines for Determination of Significance

A significant impact would result if

- The additional or redistributed ADT generated by the proposed land development project will cause onsite Circulation Element Roads to operate below LOS C during peak traffic hours except within the Otay Ranch project as defined in the Otay Subregional Plan, Volume 2. PFE, Implementation Measure 1.1.2.

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or would cause a Circulation Element Road or State Highway to operate at LOS E or LOS F, as identified in *Table 3.1.6-1, Measures of Significant Project Impacts on Congestion of Road Segments: Allowable Increases on Congested Road Segments,* or
- The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity.

Analysis

Implementation of the proposed project would generate minimal traffic on project area road segments. During construction, project traffic would consist of construction vehicles and worker trucks. Due to the relatively minor scope of construction activities required to implement the key concepts in reducing mosquito breeding habitat, construction activities and equipment needs at each individual site are expected to be minor, consisting primarily of backhoes (for projects proposing earth-moving activities) and hand equipment for vegetation removal. The short-term and limited nature of construction-related traffic would not result in a substantial increase in traffic volume. These small volumes of traffic are not anticipated to exceed any of the criteria stated above for roadway segment LOS.

Traffic generated during the operational phase of future projects would consist of sporadic trips associated with ongoing maintenance efforts. Maintenance efforts would likely consist of one or two vehicles and a small amount of equipment accessing the project site. Large construction equipment (i.e., bulldozers) is not expected to be utilized during the operational phase of future projects. Due to the small number of vehicles and equipment likely to be required for maintenance at future project sites, impacts during the operational phase of future projects would be less than significant. As such, implementation of the proposed project would not add a significant amount of traffic to local area road segments such that the criteria stated above in the Guidelines for the Determination of Significance would be exceeded. Impacts would be less than significant.

Intersections

Guidelines for Determination of Significance

A significant impact would result if

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or would cause a signalized intersection to operate at a LOS E or LOS F as identified in *Table*

3.1.6-2, Measures of Significant Project Impacts on Congestion on Intersections: Allowable Increases on Congested Intersections.

- The additional or redistributed ADT generated by the proposed project will add 20 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D, or
- The additional or redistributed ADT generated by the proposed project will add 20 or more peak hour trips to a critical movement or an unsignalized intersection currently operating at LOS E, or
- The additional or redistributed ADT generated by the proposed project will add 5 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or
- The additional or redistributed ADT generated by the proposed project will add 5 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or
- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, it is found that the generation rate is less than those specified above, and would significantly impact the operations of the intersection.

Analysis

The same factors associated with location discussed above for roadway segments also apply to the analysis of intersections. The effects of a project on signalized and unsignalized intersections is location-dependent, meaning that project traffic is likely to have the greatest effect on intersections nearest to the project site on the routes most likely to be used by project traffic. While the specific location of VHRP-eligible projects is not currently known, construction activity for the projects is not expected to generate substantial amounts of traffic on project area roadways. Similar to construction activity, operation of VHRP-eligible projects would not generate substantial traffic, and operational traffic would be limited to occasional trips associated with ongoing maintenance efforts. Construction and operation of VHRP-eligible projects is not expected to result in a redistribution of traffic in a project area. Although the location of VHRP-eligible projects and the operating conditions of intersections in the vicinity of projects are unknown, construction and operation of VHRP-eligible projects are not anticipated to generate traffic levels that would exceed the criteria stated in the Guidelines for the Determination of Significance above, because of the low volumes of traffic associated with construction and operation activities. Therefore, implementation of the VHRP would have a less-than-significant impact on signalized and unsignalized intersections in the vicinity of VHRP-eligible projects.

Two-Lane Highways

Guidelines for Determination of Significance

A significant impact would result if

- The project generates ADT in excess of the standards established for two-lane highways with signalized intersection spacing over 1 mile, as identified in *Table 3.1.6-3, Measures of Significant Project Impacts on Congestion: Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Over 1 Mile.*
- The project results in delay in excess of the standards established for two-lane highways with signalized intersection spacing under 1 mile, as identified in *Table 3.1.6-4, Measures of Significant Project Impacts on Congestion: Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Under 1 Mile.*

Analysis

As discussed above under the analysis for road segments, implementation of the proposed project would generate minimal traffic on project area roads, which could include two-lane highways with signalized intersection spacing over or under 1 mile. During construction, project traffic would consist of construction vehicles and worker trucks. Due to the relatively minor scope of construction activities required to implement the key concepts in reducing mosquito breeding habitat, construction activities and equipment needs at each individual site are expected to be minor, consisting primarily of backhoes (for projects proposing earth-moving activities) and hand equipment for vegetation removal. The short-term and limited nature of construction-related traffic would not result in a substantial increase in traffic volume. These small volumes of traffic are not anticipated to exceed any of the criteria stated above for two-lane highways. Impacts would be less than significant.

Ramps

Guidelines for Determination of Significance

A significant impact would result if

- The project results in significant increases in congestion on ramps, as identified *Table 3.1.6-5, Measure of Significant Project Traffic Impacts for Circulation Element Roads, Signalized Intersections, and Ramps.*

Analysis

As discussed above under the analysis for roadway segments, implementation of VHRP-eligible projects would generate minimal traffic on project area roads, which could include ramps. The short-term and limited nature of construction-related traffic would not result in a substantial increase in traffic volume. These small volumes of traffic are not anticipated to exceed the criteria stated above for ramps. Impacts would be less than significant.

Congestion Management

Guidelines for Determination of Significance

A significant impact would result if

- The project generates over 2,400 ADT or 200 peak hour trips and is in noncompliance with the traffic study requirements of SANDAG's Congestion Management Plan.

Analysis

Traffic associated with construction and operation of VHRP-eligible projects would not generate 2,400 ADT nor would projects generate 200 peak hour trips. Refer to *Tables 3.1.6.1* and *3.1.6.2* for discussion of allowable traffic increases. Therefore, implementation of the VHRP would result in less-than-significant impacts on circulation system elements related to the Congestion Management Plan (CMP) and VHRP-eligible projects would not be required to prepare a CMP analysis.

Hazards Due to an Existing Transportation Design Feature

Guidelines for Determination of Significance

A significant impact would result if

- Design features/physical configurations of access roads constructed by the proposed project adversely affect the safe transport of vehicle along the roadway.
- The percentage or magnitude of traffic on the road due to the proposed project may affect the safety of the roadway.
- The physical conditions of the project site and the surrounding area, such as curves, slopes, walls, landscaping, or other barriers, may result in vehicle conflicts with other vehicles or stationary objects.
- The project does not conform to the requirements of the private or public road standards, as applicable.

Analysis

The location and specifics of individual projects to be implemented under the VHRP are unknown at this time but could include the need to create access to sites for the purposes of project construction and maintenance only, and would not create roadways that would be open for use by the general public. Therefore, impacts would be less than significant.

3.1.6.3 *Cumulative Impact Analysis*

Past, present, and reasonably foreseeable future projects located in the vicinity of individual projects to be implemented under the proposed VHRP may result in significant cumulative impacts on transportation and traffic. However, implementation of VHRP-eligible projects, which would be required to comply with the design features and mitigation measures outlined in this PEIR, would not result in significant impacts related to transportation and traffic. Therefore, implementation of the VHRP would not make a cumulatively considerable contribution to any identified cumulative impact on mineral resources in San Diego County.

3.1.6.4 *Conclusion*

Implementation of the VHRP would reduce mosquito breeding habitat through wetland and water quality design, water management, and vegetation manipulation. VHRP-eligible projects would generate additional traffic on project area roadways during the construction phase; however, during the operational phase, project-related traffic would be sporadic and less than significant. VHRP-eligible projects would not result in any significant adverse transportation and traffic impacts.

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Table 3.1.6-1. Measures of Significant Project Impacts on Congestion of Road Segments: Allowable Increases on Congested Road Segments

Level of Service	Two-Lane Road	Four-Lane Road	Six-Lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

Notes:
1. By adding proposed project trips to all other trips from a list of projects this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.
2 The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service. For example, when such traffic accounts for a significant amount of the remaining road capacity.

Table 3.1.6-2. Measures of Significant Project Impacts on Congestion on Intersections: Allowable Increases on Congested Intersections

Level of Service	Signalized	Unsignalized
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement

Notes:
1. A critical movement is one that is experiencing excessive queues
2. By adding proposed project trips to all other trips from a list of projects this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.
3. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service. For example, when such traffic accounts for a significant amount of the remaining road capacity.

Table 3.1.6-3. Measures of Significant Project Impacts on Congestion: Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Over 1 Mile

Level of Service	LOS Criteria	Impact Significance Level
LOS E	> 16,200 ADT	>325 ADT
LOS F	>22,900 ADT	>225 ADT

Notes:
Where detailed data are available, the Director of Public Works may also accept a detailed level of service analysis based upon the two-lane highway analysis procedures provided in the Chapter 20 Highway Capacity Manual.

Table 3.1.6-4. Measures of Significant Project Impacts on Congestion: Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Under 1 Mile

Level of Service	Signalized
LOS E	Delay of 2 seconds
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement

Notes:
1. A critical movement is one that is experiencing excessive queues.
2. By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.
3. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

Table 3.1.6-5. Measures of Significant Project Traffic Impacts for Circulation Element Roads, Signalized Intersections, and Ramps

Level of Service With Project	Allowable Change Due to Project Impact					
	Freeways		Roadway Segments*		Intersections**	Ramps with >15 min. delay
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)
E & F	0.01	1	0.02	1	3	2

* For County arterials, which are not identified in SANDAG's Regional Transportation Plan and Congestion Management Plan as regionally significant arterials, significance may be measured based upon an increase in average daily trips. The allowable change in ADT due to project impacts in this instance would be identified in Table 3.1.6-1.
** Signalized intersections.

3.1.7 Utilities and Service Systems

This section assesses general utilities and service system conditions in San Diego County and identifies potential utilities and service system impacts that could occur as a result of implementation of VHRP-eligible projects. The information used in this analysis is general in nature and is derived from the most readily available information in applicable resource and planning documents. Site-specific utility and service system studies were not performed for the VHRP as the locations of future VHRP-eligible projects are not known at this time.

3.1.7.1 *Existing Conditions*

Wastewater Treatment

Within the unincorporated communities of the County of San Diego, wastewater treatment services are provided by the County's Department of Public Works (DPW). Wastewater Management Section (WWM) is responsible for maintaining sewer lines, pump stations, force mains, and several treatment plants for the unincorporated areas of Alpine, Julian, Lakeside, Spring Valley, Pine Valley, Campo, East Otay Mesa, and the Winter Gardens area (http://www.sdcounty.ca.gov/dpw/engineer/wasteh2o.html#Management%20Section). DPW operates and maintains six wastewater treatment facilities. From the time wastewater enters any of the six treatment facilities, it (influent) undergoes physical, biological, and chemical treatment for many hours before the treatment process is complete. Treated water is discharged via controlled irrigation or percolation processes.

Within incorporated cities, wastewater treatment services are provided by the city Water or Public Works departments. Wastewater is often conveyed through miles of pipelines and sewer laterals and through multiple pump stations. Methods of treatment and discharge are often specific to the city.

Water Supply

The San Diego County Water Authority (SDCWA) is the public agency responsible for the administration of the region's Colorado River rights. The SDCWA sells water to 24 municipal water departments and water districts (member agencies), which in turn deliver the water to individual homes and businesses throughout western San Diego County. The County's 2.7 million residents typically rely on imported water for 90% of their total supply in a typical year (http://www.sdcwa.org/about/who-history.phtml).

The SDCWA maintains five large pipelines that extend in a north–south direction through San Diego County and carry water to the region from the Colorado River and the State Water Project in Northern California. Pipelines 1 and 2 are also known as the First Aqueduct, while Pipelines

3, 4, and 5 are known as the Second Aqueduct. Four additional, shorter pipelines run east and west connecting the two aqueducts. The east–west pipelines also deliver water to member agencies.

Twenty-four surface reservoirs are maintained by member agencies within the SDCWA service area to ensure that the County has sufficient water supplies to endure a prolonged interruption of its imported water supply.

Solid Waste and Recycling

All solid waste facilities, including landfills, require solid waste facility permits to operate. In San Diego County, the County's DEH, Local Enforcement Agency issues solid waste facility permits with concurrence from the CIWMB under the authority of the Public Resources Code (Sections 44001–44018) and 27 CCR 21440 et seq. There are five permitted active landfills in San Diego County with remaining capacity.

3.1.7.2 *Analysis of Project Effects and Determination as to Significance*

The following significance thresholds for utilities and service systems are based on criteria provided in Appendix G of the CEQA Guidelines. All information necessary to properly and thoroughly evaluate project impacts and a determination of impact significance was reviewed in preparing this PEIR. A significant impact would result if the project would:

- Exceed wastewater treatment requirements of the applicable Water Quality Control Board.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed.
- Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Not comply with federal, state and local statutes and regulations related to solid waste.

Wastewater Treatment

Guidelines for the Determination of Significance

A significant impact would result if the project would:

- Exceed wastewater treatment requirements of the applicable Water Quality Control Board.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Analysis

VHRP-eligible projects would not propose uses that will generate wastewater or require the construction of new water or wastewater treatment facilities or expansion of existing facilities. Additionally, VHRP-eligible projects would not propose uses that require new or expanded stormwater drainage facilities. As stated in *Chapter 2, Project Description*, VHRP-eligible projects would reduce mosquito breeding habitat through wetland and water quality treatment design, water management, and vegetation manipulation. VHRP-eligible projects could potentially redesign existing stormwater treatment facilities to reduce mosquito breeding grounds; however, efforts would primarily involve redesigning facilities to limit water retention to less than 72 hours. Redesigns are not intended to expand existing stormwater facilities. Future redesigning efforts would not require the construction of new water or wastewater facilities, because no wastewater would be generated by project-related activities. Projects incorporating water management as a method to reduce mosquito breeding habitat would design water delivery and drainage systems to limit water retention time to less than 72 hours. Vegetation manipulation activities (vegetation removal by small, hand-operated equipment) would not generate any wastewater or require the use of potable water.

Implementation of the VHRP would not require the construction of new or expanded facilities, which could cause significant environmental effects. Potential impacts associated with the redesign of existing stormwater treatment facilities would be less than significant.

Water Supply

Guidelines for Determination of Significance

A significant impact would result if:

- Sufficient water supplies are not available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed.

Analysis

VHRP-eligible projects are not expected to require excessive supplies of water, and no new or expanded entitlements are anticipated to be required. Therefore, impacts will be less than significant.

Solid Waste Capacity

Guidelines for Determination of Significance

A significant impact would result if the project would:

- Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or
- Not comply with federal, state and local statutes and regulations related to solid waste.

Analysis

Implementation of the VHRP and construction of VHRP-eligible projects could potentially generate solid waste; however, the quantities of waste would be minimal, and much of the waste would be plant materials that could be recycled. If construction activities ultimately require disposal in a landfill, there are numerous solid waste disposal facilities throughout San Diego County. All solid waste facilities, including landfills, require solid waste facility permits to operate. In San Diego County, the County's DEH, Local Enforcement Agency issues solid waste facility permits with concurrence from the CIWMB under the authority of the Public Resources Code (Sections 44001–44018) and 27 CCR 21440 et seq. There are five permitted active landfills in San Diego County with remaining capacity. VHRP projects will be required to deposit all solid waste at a permitted solid waste facility and, therefore, will comply with federal, state, and local statutes and regulations related to solid waste. Impacts associated with solid waste will be less than significant.

3.1.7.3 *Cumulative Impact Analysis*

Past, present, and reasonably foreseeable future projects located in the vicinity of individual projects to be implemented under the proposed VHRP may result in significant cumulative impacts on utilities and service systems. However, implementation of VHRP-eligible projects, which would be required to comply with the design features and mitigation measures outlined in this PEIR, would not require the construction or expansion of utilities or service systems and would not result in significant impacts related to utilities or service systems. Therefore, implementation of the VHRP would not make a cumulatively considerable contribution to any identified cumulative impact related to utilities and service systems in San Diego County.

3.1.7.4 *Conclusion*

Implementation of the VHRP would reduce mosquito breeding habitat through wetland and water quality design, water management, and vegetation manipulation. VHRP-eligible projects may require minor grading and dredging activities within or adjacent to existing facilities. Implementation of the VHRP would not involve or require the construction of new utilities/services including water or wastewater treatment facilities or stormwater drainage facilities wastewater. VHRP-eligible projects may require disposal of materials in a landfill but quantities would be minimal and capacity is available in existing landfills. VHRP-eligible projects would not result in significant adverse impacts on utilities and service systems.

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3.2 Effects Found Not Significant During Initial Study

The following environmental areas were found to be not significant during the Environmental Initial Study Process: Agricultural Resources, Land Use and Planning, Population and Housing, Public Services, and Recreation. The Environmental Initial Study has been included as Appendix B to this PEIR.

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CHAPTER 4.0 PROJECT ALTERNATIVES

This section implements the requirements set forth in CEQA Guidelines Section 15126.6 regarding analysis of alternatives in EIRs. Section 15126.6(f) calls for analysis of a range of reasonable alternatives based on the "rule of reason." As applied to selection and analysis of project alternatives, the "rule of reason" means that an EIR need consider only those alternatives necessary to permit a reasoned choice. An EIR need not consider every conceivable alternative. Alternatives should be limited to those that meet most of the basic project objectives, are feasible, and would avoid or substantially reduce at least one of the significant effects of the project. The discussion of alternatives in this PEIR satisfies these requirements.

CEQA also requires consideration of a "No Project" alternative and identification of the environmentally superior alternative from among the project alternatives (Section 15126.6(e)). If the "No Project" alternative is the environmentally superior alternative, the EIR must identify an environmentally superior alternative from among the other alternatives. The discussion of alternatives in this PEIR satisfies these requirements.

4.1 Rationale for Alternative Selection

To protect public health from mosquito-borne diseases, the County proposes to implement a program for vector habitat remediation. The County DEH considered a series of program options to best protect public health when formulating the VHRP, one goal of which is to fund projects that eliminate or reduce mosquito breeding habitat in a manner that balances the water quality, biological, aesthetic, and hydrologic values of wetlands with the need to protect human populations and animals from mosquito-borne diseases, including the West Nile virus. Consequently, project alternatives were only considered to be feasible if they would achieve this core goal.

The alternatives considered in this EIR represent a reasonable range of alternatives as required by CEQA and include the implementation of a vector nuisance abatement program in which the County would perform direct abatement when responsible parties failed to act. A second alternative involves grants to applicants similar to the proposed program, but would limit projects to those with relatively little potential for adverse environmental impacts. Other alternatives could be identified with variations in project eligibility rules and teaming arrangements, but these small variations would fall within the range of the alternatives considered below. Additional alternatives were analyzed during the preparation of this PEIR but were determined not to reduce any significant impact identified for the proposed project and therefore are not discussed in this document.

4.2 Analysis of the Vector Nuisance Abatement Enforcement Program (VNAEP) Alternative

4.2.1 VNAEP Alternative Description and Setting

Under this alternative, DEH would implement a vector nuisance abatement program and perform direct abatement when responsible parties failed to act. DEH would identify locations throughout San Diego County where a public nuisance exists. Such "public nuisance" areas are those defined as having mosquito-breeding habitat, and where the habitat has been altered and/or disturbed. Because maintenance activities would be restricted to locations that have been altered and/or disturbed, the size of affected areas under this alternative would be less than the areas affected by the proposed project. DEH would notify property owners of their obligation to eliminate such nuisances within specified time lines. Notification of property owners would include information regarding the proper methods/procedures to follow and information regarding permits/approvals that the property owner might need to obtain. (The County would not be responsible for obtaining permits and approvals for property owners/responsible parties.) If a responsible party failed to act within specified timelines, the County would abate the nuisance directly and pursue cost recovery as allowed by state law. A potential advantage of this program would be that a portion of the funds expended for direct abatement actions would be recovered from responsible parties and could be used again for additional abatement activities. Activities anticipated to be conducted under the VNAEP Alternative include changing water flows, sediment removal, trash removal, and vegetation removal.

The VNAEP Alternative would achieve most of the objectives of the proposed project as listed in *Section 1.1* of this PEIR. However, compared to the proposed project, this alternative would result in a significant limitation on DEH's authority to abate vector public nuisances as it would limit potential project sites to areas that have been previously altered from their natural condition and that contain breeding grounds for vectors. Therefore, some properties in their natural conditions that support mosquito breeding habitat would not fit within DEH's enforcement and cost recovery authority. However, while this would decrease the effectiveness of this alternative compared to the proposed program, it would also decrease environmental impacts by precluding abatement activity on land that had not already been altered from its natural condition.

The issuance of enforcement orders by the County would be exempt from CEQA. However, the activities to be performed by the property owners would not be exempt from CEQA. If the County were to implement direct abatement as a result of failed action by property owners, the County would pursue the appropriate CEQA analysis and apply for any necessary permits.

4.2.2 Comparison of the Effects of the VNAEP Alternative to the Proposed Project

4.2.2.1 *Aesthetics and Visual Quality*

Neither the proposed project nor the VNAEP Alternative would result in significant impacts on aesthetics as discussed in *Chapter 3.1.1*. Therefore, when compared to the proposed project, this alternative does not provide substantial benefits in terms of impact reduction for aesthetics.

4.2.2.2 *Agricultural Resources*

This alternative would lead to the implementation of future activities that abate vector public nuisances within properties that have been artificially altered. The abatement activities for this alternative would occur in areas that host breeding places for mosquito-breeding habitat within drainage and stormwater management facilities. Although the specific location, type of activity, and size of future projects are unknown at this time, neither this alternative nor the proposed project would result in changes to land use that would result in the conversion of agricultural lands to non-agricultural uses. Therefore, like the proposed project, this alternative would have no significant impacts on agricultural resources.

4.2.2.3 *Air Quality*

This alternative would involve the same types of activities as the proposed project but would not occur in natural areas or areas not previously altered from their natural condition. Neither the proposed project nor the VNAEP Alternative would result in significant impacts on air quality as discussed in *Chapter 3.1.2*. Therefore, when compared to the proposed project, this alternative does not provide substantial benefits in terms of impact reduction for air quality.

4.2.2.4 *Biological Resources*

This alternative would abate vector public nuisances in areas that have been artificially altered from their natural condition. Therefore, some property in its natural condition that supported mosquito breeding habitat would not fit within this alternative. A reduction in future projects occurring in natural areas would potentially reduce the likelihood of impacts on biological resources. Abatement activity on land that had not already been altered would be precluded with this alternative, and fewer disturbances of natural areas would occur compared to the proposed project. Therefore, this alternative would result in fewer significant impacts on biological resources. However, it should be noted that feasible mitigation measures have been identified for the proposed project that would reduce all identified significant effects on biological resources to less-than-significant levels.

4.2.2.5 *Cultural Resources*

This alternative would abate vector public nuisances in areas that have been artificially altered from their natural condition. The VNAEP Alternative would result in fewer projects occurring in natural areas, which would potentially reduce the likelihood of impacts on cultural resources compared to the proposed project. However, neither the proposed project nor the VNAEP Alternative would result in significant impacts on cultural resources. Therefore, when compared to the proposed project this alternative does not provide substantial benefits in terms of impact reduction for cultural resources.

4.2.2.6 *Geology and Soils*

Neither the proposed project nor the VNAEP Alternative would result in significant impacts on geology and soils as discussed in *Chapter 3.1.3*. Therefore, when compared to the proposed project, this alternative does not provide substantial benefits in terms of impact reduction for geology and soils.

4.2.2.7 *Hazards and Hazardous Materials*

Neither the proposed project nor the VNAEP Alternative would result in significant impacts related to hazards or hazardous materials as discussed in *Chapter 3.1.4*. Therefore, when compared to the proposed project, this alternative does not provide substantial benefits in terms of impact reduction for hazards and hazardous materials.

4.2.2.8 *Hydrology and Water Quality*

Activities implemented under this alternative would include changing water flows, sediment removal, trash removal, and vegetation removal. This alternative would have the potential to result in similar impacts on hydrology and water quality and could be mitigated by the same measures recommended for the proposed project. Impacts on hydrology and water quality resulting from this alternative would be similar to the proposed project.

4.2.2.9 *Land Use and Planning*

Neither the alternative nor the proposed project would divide an established community or conflict with applicable land use plans, policies, or regulations as activities under both the proposed project and this alternative would consist of those necessary to reduce mosquito breeding habitat (e.g., minor grading, vegetation removal, etc.). This alternative would have no significant impacts on land use and planning, similar to the proposed project.

4.2.2.10 *Mineral Resources*

This alternative would implement future activities that abate vector public nuisances and would affect mineral resources in the same fashion as the proposed project. Neither the alternative nor the proposed project would result in the loss of availability of a known mineral resource that would be of value to the region and to the residents of the state, or result in the loss of locally important mineral resources delineated on a local general plan or other planning document. Therefore, this alternative would be similar to the proposed project with respect to impacts on mineral resources.

4.2.2.11 *Noise*

Activities implemented under this alternative would involve noise-generating equipment (construction vehicles, backhoes, chainsaws, etc.). This alternative would have the potential to result in similar impacts on noise and could be mitigated by the same measures recommended for the proposed project. Noise impacts resulting from this alternative would be similar to the proposed project.

4.2.2.12 *Population and Housing*

Neither this alternative nor the proposed project would implement activities that would displace people or residents that might cause impacts from construction of replacement housing elsewhere as activities would consist of those necessary to reduce mosquito breeding habitat (e.g., minor grading, vegetation removal, etc.). Like the proposed project, this alternative would have no significant impacts on population and housing.

4.2.2.13 *Public Services*

Neither this alternative nor the proposed project would result in substantial adverse physical impacts associated with the provision of or need for new or physically altered government facilities, the construction of which would cause significant impacts as activities would be focused on the reduction in mosquito breeding habitat, and no new public services would be required as a result of the proposed project or this alternative. Like the proposed project, this alternative would have no significant impacts on public services.

4.2.2.14 *Recreation*

This alternative would implement proposed vector control abatement actions such as changing water flows, sediment removal, trash removal, and vegetation removal and would not increase the use of existing neighborhood and regional parks or other recreational facilities, or require the

construction of additional recreational facilities. Similar to the proposed project, this alternative would have no impacts on recreational facilities.

4.2.2.15 *Transportation and Traffic*

Neither the proposed project nor the VNAEP Alternative would result in significant impacts on transportation and traffic as discussed in *Chapter 3.1.6*. Therefore, when compared to the proposed project, this alternative does not provide substantial benefits in terms of impact reduction for transportation and traffic.

4.2.2.16 *Utilities and Service Systems*

Neither this alternative nor the proposed project would result in substantial adverse impacts on utilities and service systems as discussed in *Chapter 3.1.7*. Like the proposed project, this alternative would have no significant impacts on utilities and service systems.

4.2.3 Relationship to Project Objectives

The VNAEP Alternative would meet project objectives 1, 2, and 4 (see PEIR *Section 1.1.3*) by properly notifying and educating property owners regarding public nuisance problems and the property owners' obligation to eliminate such nuisances. If the nuisances are not addressed, then the County would abate the nuisance directly and pursue cost recovery.

Specifically, the alternative would meet the following objectives: (1) to protect public health and safety by reducing or eliminating the presence of mosquitoes that transmit vector-borne diseases such as West Nile virus; (2) to eliminate or reduce mosquito breeding habitat in a manner that balances the water quality, biologic, aesthetic, and hydrologic values of wetlands with the need to protect human populations and animals from mosquito-borne diseases; and (4) to implement a directed process for an urgent public health mosquito-abatement project identified by DEH that would not require additional CEQA review.

However, this alternative would not meet the County’s objective 3, because it would not implement a selective process to distribute funds to projects that would reduce or eliminate mosquito breeding habitat through design, modification management, and maintenance activities (such as restoring or modifying physical features affecting water flow and retention, vegetation manipulations, and water management) within natural areas. This objective is important as it would implement a process for funds’ distribution that would make the best use of the funds and provide the most cost-effective protection against mosquito-borne disease. Lack of these aspects of the project would cause this alternative to be less effective in reducing mosquito breeding habitat and in maintaining a balance with other environmental objectives. While this alternative would result in reduced impacts on biology and cultural resources, feasible mitigation measures

have been identified for the proposed project that would reduce all identified significant effects to less-than-significant levels.

4.3 Analysis of the VHRP RGP Alternative

4.3.1 VHRP RGP Alternative Description and Setting

This alternative is identical to the proposed project except that individual projects implemented under and funded by the VHRP would be limited to those areas/activities that meet the general conditions of the proposed RGP. DEH has consulted with the ACOE, USFWS, CDFG, and RWQCB/SWRCB; and is negotiating the issuance of an RGP from the ACOE to address impacts on ACOE jurisdictional resources (as well as umbrella permits from the other agencies to address impacts on resources under the jurisdiction of those agencies) resulting from implementation of individual projects under the VHRP. An RGP is a permit that is issued for activities that are similar in nature and cause only minimal adverse impacts. Implementation of this alternative would be contingent on the issuance of the RGP (and other umbrella permits), which may not occur prior to the anticipated approval of the project and this PEIR.

Activities anticipated to be conducted by property owners under the VHRP RGP Alternative include sediment removal, trash removal, minor grading, and vegetation removal (including minor removal of native riparian vegetation).

If the County obtains an RGP for VHRP-eligible projects, those projects meeting the terms and conditions for use of the RGP would result in reduced impacts compared to those potentially occurring from non-RGP-eligible projects. It is anticipated that the RGP for a VHRP-eligible project would apply to projects that would: result in no more than 5,000 square feet of impacts on jurisdictional resources, not require construction/vegetation clearing during the bird-breeding season, and not result in direct impacts on listed species. While the final terms, conditions, and mitigation measures would be outlined in the RGP, they would be consistent with the mitigation measures discussed in this PEIR, and significant impacts would be reduced to below a level of significance.

The VHRP RGP Alternative would achieve the objectives of the proposed project as listed in *Section 1.1.3* of this PEIR, but would be less effective, as only projects with minimal to no impacts on jurisdictional resources could be implemented (large-scale projects would not be implemented under this alternative), and, therefore, a substantial number of wetlands and other water bodies could continue to function as breeding grounds for mosquitoes. By excluding those large-scale priority projects, this alternative would not only reduce significant environmental impacts but would also reduce overall program effectiveness. Variation of this alternative could

re-scale this tradeoff between effectiveness and environmental impacts, but the tradeoff itself is fundamental to any program alternative that would restrict eligible projects.

4.3.2 Comparison of the Effects of the VHRP RGP Alternative to the Proposed Project

4.3.2.1 *Aesthetics and Visual Quality*

The VHRP RGP Alternative would implement activities similar to those of the proposed project such as sediment removal, trash removal, minor grading, and minor vegetation removal. Impacts on aesthetics resulting from this alternative would therefore be similar to those of the proposed project. Neither the proposed project nor the VHRP RGP Alternative would result in significant impacts on aesthetics as discussed in *Chapter 3.1.1*. Therefore, when compared to the proposed project, this alternative does not provide substantial benefits in terms of impact reduction for aesthetics.

4.3.2.2 *Agricultural Resources*

This alternative would lead to the implementation of future activities that abate vector public nuisances within properties that have been artificially altered. The abatement activities for this alternative would occur in areas that host breeding places for mosquito-breeding habitat within drainage and stormwater management facilities. Although the specific location, type of activity, and size of future projects are unknown at this time, neither this alternative nor the proposed project would result in changes to land use that would result in the conversion of agricultural lands to non-agricultural uses. Therefore, like the proposed project, this alternative would have no significant impacts on agricultural resources.

4.3.2.3 *Air Quality*

This alternative would involve the same types of activities as the proposed project. Impacts on air quality under this alternative would be similar to those of the proposed project. Neither the proposed project nor the VHRP RGP Alternative would result in significant impacts on air quality as discussed in *Chapter 3.1.2.* Therefore, when compared to the proposed project, this alternative does not provide substantial benefits in terms of impact reduction for air quality.

4.3.2.4 *Biological Resources*

The VHRP RGP Alternative would implement projects that would be covered under the RGP. Future projects implemented under this alternative would be reduced to small-scale projects with minimal to no impacts on jurisdictional resources, and larger projects that would have a greater effectiveness at reducing mosquito breeding habitat would not be implemented. Therefore, this

alternative could result in a reduction in future projects occurring in natural areas and could potentially reduce the likelihood of impacts on biological resources. However, it should be noted that feasible mitigation measures have been identified for the proposed project that would reduce all identified significant effects on biological resources to less-than-significant levels. As a result, although the alternative would reduce impacts, it does not provide substantial benefits when compared to the project.

4.3.2.5 *Cultural Resources*

This alternative would result in less ground-disturbing activities by not implementing large-scale projects as compared to the proposed project. A reduction in future projects occurring in natural areas would potentially reduce the likelihood of impacts on cultural resources when compared to the proposed project. However, it should be noted that feasible mitigation measures have been identified for the proposed project that would reduce all identified significant effects on cultural resources to less than significant levels. As a result, although the alternative would reduce impacts, it does not provide substantial benefits when compared to the project.

4.3.2.6 *Geology and Soils*

Neither the proposed project nor the VHRP RGP Alternative would result in significant impacts on geology and soils as discussed in *Chapter 3.1.3*. Therefore, when compared to the proposed project, this alternative does not provide substantial benefits in terms of impact reduction for geology and soils.

4.3.2.7 *Hazards and Hazardous Materials*

Neither the proposed project nor the VHRP RGP Alternative would result in significant impacts related to hazards or hazardous materials as discussed in *Chapter 3.1.4*. Therefore, when compared to the proposed project, this alternative does not provide substantial benefits in terms of impact reduction for hazards and hazardous materials.

4.3.2.8 *Hydrology and Water Quality*

The VHRP RGP Alternative would implement projects that would be covered under the RGP. Activities implemented under this alternative would include sediment removal, trash removal, and minor vegetation removal. This alternative would have the potential to result in similar impacts on hydrology and water quality and could be mitigated by the same measures recommended for the proposed project.

4.3.2.9 *Land Use and Planning*

This alternative would implement future activities that meet the general conditions of the proposed RGP. Similar to the proposed project, impacts on land use and planning would be less than significant, because neither the alternative nor the proposed project would divide an established community or conflict with applicable land use plans, policies, or regulations. Similar to the proposed project, this alternative would have no significant impacts on land use and planning.

4.3.2.10 *Mineral Resources*

This alternative would implement future projects that reduce mosquito breeding habitat, and would affect mineral resources in the same manner as the proposed project. Neither the alternative nor the proposed project would result in the loss of availability of a known mineral resource that would be of value to the region and to the residents of the state, or result in the loss of locally important mineral resources delineated on a local general plan or other planning documents as discussed in *Chapter 3.1.5*. Therefore, this alternative would be similar to the proposed project with respect to mineral resources.

4.3.2.11 *Noise*

Activities implemented under this alternative would involve noise-generating equipment (construction vehicles, backhoes, chainsaws, etc.). This alternative would have the potential to result in similar impacts on noise and could be mitigated by the same measures recommended for the proposed project. Noise impacts resulting from this alternative would be similar to the proposed project.

4.3.2.12 *Population and Housing*

This alternative would implement future activities that would be covered by the RGP and would generally consist of small-scale projects in comparison to the proposed project. The effects on population growth from implementation of this alternative would be similar to the proposed project. Neither this alternative nor the proposed project would displace people or residents that might cause impacts from construction of replacement housing elsewhere. Like the proposed project, this alternative would have no significant impacts on population and housing.

4.3.2.13 *Public Services*

This alternative would implement future activities of the VHRP that are covered by the RGP to reduce mosquito breeding habitat and would generally include sediment removal, trash removal, and minor vegetation removal. The effects of this alternative on public services would be similar

to the proposed project, because neither the alternative nor the proposed project would result in substantial adverse physical impacts associated with the provision of or need for new or physically altered government facilities, the construction of which would cause significant impacts. Like the proposed project, this alternative would have no significant impacts on public services.

4.3.2.14 *Recreation*

The implementation of VHRP RGP Alternative actions such as sediment removal, trash removal, and minor vegetation removal would not increase the use of existing neighborhood and regional parks or other recreational facilities, or require the construction of additional recreational facilities. Like the proposed project, this alternative would have no impacts on recreation.

4.3.2.15 *Transportation and Traffic*

Neither the proposed project nor the VHRP RGP Alternative would result in significant impacts on transportation and traffic as discussed in *Chapter 3.1.6*. Therefore, when compared to the proposed project, this alternative does not provide substantial benefits in terms of impact reduction for transportation and traffic.

4.3.2.16 *Utilities and Service Systems*

The VHRP RGP Alternative is not anticipated to result in the redesign of existing stormwater drainage facilities. However, like the proposed project, this alternative would result in the need to dispose of trash, sediment, and vegetation from properties. These activities would be similar to those undertaken with the proposed project. Therefore, this alternative would be similar to the proposed project with respect to impacts on utilities and service systems.

4.3.3 Relationship to Project Objectives

The VHRP RGP Alternative would meet project objectives 1–4 (see PEIR *Section 1.1.3*) by implementing the VHRP but reducing the scale of projects to those that would result in minimal adverse environmental impacts. However, the reduction of the type and size of projects to those that would result in minimal adverse environmental impacts that would be covered in the RGP would reduce the overall program effectiveness in reducing or eliminating the presence of West Nile virus in San Diego County.

Specifically the alternative would meet the following objectives: (1) to protect public health and safety by reducing or eliminating the presence of mosquitoes that transmit vector-borne diseases such as West Nile virus; (2) to eliminate or reduce mosquito breeding habitat in a manner that balances the water quality, biologic, aesthetic, and hydrologic values of wetlands with the need

to protect human populations and animals from mosquito-borne diseases; (3) to implement a selective process that distributes funds to projects that would reduce or eliminate mosquito breeding habitat; and (4) to implement a directed process for an urgent public health mosquito-abatement project identified by DEH that would not require additional CEQA review.

No significant unmitigable environmental effects were identified for the proposed project. However, the VHRP RGP Alternative would result in reduced environmental impacts on biological resources and cultural resources. Compared to the proposed project, this alternative would be less effective, as individual projects implemented under this alternative would be limited to smaller projects with minimal to no impacts on ACOE jurisdictional resources (large-scale projects would not be implemented under this alternative), and, therefore, a significant number of wetlands and other water bodies could continue to function as breeding grounds for mosquitoes.

4.4 Analysis of the No Project Alternative

4.4.1 No Project Alternative Description and Setting

Under the No Project Alternative, conditions throughout San Diego County would not change. There would be no enhancement to the existing VCP to further reduce mosquito breeding habitat in an effort to reduce the presence of the West Nile virus and other diseases transmitted by mosquitoes. The environmental setting would remain the same as described in the project description in *Section 1.4* of this PEIR.

4.4.2 Comparison of the Effects of the No Project Alternative to the Proposed Project

The impacts associated with the No Project Alternative would be less than those of the proposed project. However, the No Project Alternative would result in a business-as-usual situation and would not implement a new program to fund future projects that propose actions to further assist in the reduction of mosquitoes that transmit diseases such as the West Nile virus. The West Nile virus is a growing concern throughout San Diego County, with cases increasing in humans and animals every year.

4.4.3 Relationship to Project Objectives

This alternative would not achieve any of the project objectives listed in *Section 1.1.3* of the PEIR. Although there would generally be fewer environmental impacts, the No Project Alternative would not provide a funding mechanism to projects that propose to reduce mosquito breeding habitat throughout San Diego County.

4.5 Environmentally Superior Alternative

A comparison of the likely impacts associated with the alternatives presented in this PEIR with the impacts of the proposed VHRP is provided in *Table 4-1 Comparison of Project Alternatives Impacts to Proposed Project Impacts*. The No Project Alternative would be the environmentally superior alternative because it would minimize several significant impacts. However, CEQA Guidelines Section 15126.6(e)(2) states that if the environmentally superior alternative is the No Project Alternative, the EIR must also identify an environmentally superior alternative among the other alternatives. In this case, the environmentally superior alternative is the VHRP RGP Alternative, which would reduce the project's identified significant environmental impacts on biological and cultural resources. While the VNAEP Alternative would also reduce impacts on biological and cultural resources, the VHRP RGP Alternative has been determined to be environmentally superior as it involves the issuance of umbrella permits from the resource agencies which would require avoidance, minimization, and mitigation of impacts on sensitive biological resources.

The VHRP RGP Alternative would achieve the objectives of the proposed project as listed in *Section 1.1.3* of this PEIR. No significant unmitigable environmental effects were identified for the proposed project; however, the VHRP RGP Alternative would result in reduced environmental impacts on biological resources and cultural resources. Compared to the proposed project, however, this alternative would be less effective, as individual projects implemented under this alternative would be limited to smaller projects with minimal to no impacts on jurisdictional resources (large-scale projects would not be implemented under this alternative), and, therefore, a substantial number of wetlands and other water bodies could continue to function as breeding grounds for mosquitoes.

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Table 4-1. Comparison of Project Alternatives Impacts to Proposed Project Impacts

Issue Area	No Project Alternative	VNAEP Alternative	VHRP RGP Alternative
Aesthetics and Visual Quality	Less	Similar	Similar
Agricultural Resources	Similar	Similar	Similar
Air Quality	Less	Similar	Similar
Biological Resources	Less	Less	Less
Cultural Resources	Less	Less	Less
Geology and Soils	Less	Similar	Similar
Hazards and Hazardous Materials	Less	Similar	Similar
Hydrology and Water Quality	Less	Similar	Similar
Land Use and Planning	Similar	Similar	Similar
Mineral Resources	Less	Similar	Similar
Noise	Less	Similar	Similar
Population and Housing	Similar	Similar	Similar
Public Services	Similar	Similar	Similar
Recreation	Similar	Similar	Similar
Transportation and Traffic	Less	Similar	Similar
Utilities and Service Systems	Less	Similar	Similar

Notes:
Greater = Alternative results in greater impacts than the proposed project.
Similar = Alternative results in impacts similar to those of the proposed project.
Less = Alternative results in less impacts than the proposed project.

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CHAPTER 7.0 LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

This list of Mitigation Measures and Design Considerations contains all of the mitigation measures proposed for consideration in the Draft PEIR. The mitigation measures proposed for adoption are contained in the individual chapters of the Draft PEIR and will be listed in the Mitigation Monitoring Program.

Mitigation Measures

2.1 Biological Resources

MI-BI-1a To avoid permanent and temporary impacts on special-status plant species, a preconstruction survey to determine the presence/absence of special-status plant species shall be conducted for projects where suitable habitat exists and where proposed project activities would result in impacts on potentially suitable habitat. At least two surveys shall be conducted for each site: one during the spring and one during the summer, if suitable habitat occurs within the project vicinity such that project activities could have the potential to impact the suitable habitat. Project design components, including construction work, shall avoid to the extent practicable any habitat with the potential to support special-status plants. If special-status plant species are found, those individuals or populations shall be avoided, or mitigation measures (which could include transplantation, etc.) shall be implemented that would reduce impacts to below a level of significance. Impacts on state or federal listed species will require consultation under the Endangered Species Act.

M-BI-1b A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place.

M-BI-2a Best management practices to address erosion and excess sedimentation would be incorporated into the project plans. At minimum, the plans should show the locations of temporary fencing, drainage inlet protection, gravel bags, fiber rolls, temporary construction access paths, and any other procedures deemed appropriate by the County.

M-BI-2b Topsoil shall be stockpiled in disturbed areas currently lacking native vegetation. Stockpile areas will be delineated on the project plans by a qualified biologist.

M-BI-2c The changing of oil, refueling, and other actions that could result in a release of a hazardous substance shall be restricted to designated areas that are a minimum of 100 feet from documented special-status plant populations, sensitive habitats, or drainages. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" shall be designated on construction maps. Designated fueling areas shall be demarcated in the field by berms, sandbags, or other artificial barriers designed to further prevent accidental spills. Accidental spills of hazardous substances shall be immediately contained, cleaned up, and properly disposed.

M-BI-3a Areas to be avoided that contain sensitive biological resources shall be flagged by a qualified biologist prior to the onset of project activities. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones.

M-BI-3b Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. Construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing to ensure that construction activity remains within the defined limits evaluated and approved by County staff. A qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts.

M-BI-3c Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application.

M-BI-3d Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, all vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and shall be reviewed by a qualified biologist.

M-BI-4a Removal of vegetation, including but not limited to, trees, sub-shrubs, and shrubs, shall be conducted outside of the bird and raptor breeding season (January 15 to September 15). If vegetation removal is unavoidable during the bird and raptor breeding season, and listed species are not present, then pre-construction surveys

shall be conducted within one week prior to work in each individual project area supporting suitable nesting bird habitat to document breeding activity of migratory birds within or immediately adjacent to the proposed work areas. If an active bird nest is found, the nest shall be flagged and mapped on the project plans along with an appropriate buffer, which shall be determined by the biologist based on the biology of the species. The buffer shall be delineated by temporary fencing and shall remain in effect as long as construction occurs or until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing.

M-BI-4b Where habitat for state- and/or federally listed species is identified on or adjacent to the project work sites, vegetation clearing, grubbing, and sediment removal shall occur outside the breeding/mating seasons listed below:

a. arroyo toad—March 15 to July 31
b. least Bell's vireo—March 15 to September 15
c. southwestern willow flycatcher—March 15 to September 15
d. coastal California gnatcatcher—February 15 to August 31
e. light-footed clapper rail—March 1 to August 31

M-BI-4c If potentially suitable habitat for state- and/or federally listed species is detected at any of the prescribed project sites, focused protocol surveys for each species with potential to occur shall be conducted. If state- and/or federally listed species are determined to occur within the project impact area, consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game under the Endangered Species Act shall be initiated and any resulting mitigation measures identified during consultation shall be implemented.

M-BI-5 For construction activities adjacent to habitats occupied by listed avian species (e.g., California gnatcatcher, least Bell's vireo, and southwestern flycatcher) in which noise is produced in excess of 60 dB(A)L_{eq} or ambient noise levels (if ambient levels are above 60), noise attenuation structures shall be placed prior to the beginning of the breeding season for these species to reduce noise levels at the nest site to 60dB(A)L_{eq} (or ambient if ambient is over 60). During construction adjacent to these areas, noise monitoring shall occur during the breeding season for these species and daily monitoring reports shall be submitted to the U.S. Fish and Wildlife Service. In the event that construction activities create noise in excess of the thresholds described above, work shall cease until effective noise attenuation structures or devices are in place.

M-BI-6a A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place.

M-BI-6b Prior to the onset of project activities, a qualified biologist shall flag areas to be avoided that contain sensitive biological resources, including appropriate buffers. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones.

M-BI-6c Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. All construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing, to ensure that construction activity remains within the defined limits evaluated and approved by County staff. A qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts.

M-BI-6d Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application.

M-BI-6e Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, all vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and shall be reviewed by a qualified biologist.

M-BI-7a Prior to conducting work in any individual work area, a biological assessment shall be conducted to inventory existing flora and faunal resources; provide a thorough assessment of rare plants and wildlife and rare natural communities that may be present on site; and inventory rare, threatened, endangered, and otherwise sensitive species in the work area(s) and within the area of potential effect.

M-BI-7b Permanent loss of riparian and wetlands habitat shall be offset with equal or better habitat function at ratios commensurate with project impacts, ranging from 1:1 to 3:1. Final mitigation ratios for specific habitat types shall be determined based on

the quality and quantity of resources impacted or, for projects within the planning area of a finalized habitat conservation plan, in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that temporary impacts on riparian and wetlands habitat would be offset through the restoration of temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio.

M-BI-7c Permanent loss of native upland habitat (sage scrub, chaparral, native grasslands, oak woodland, etc.) shall be offset with equal or better habitat function at ratios commensurate with project impacts, ranging from 1:1 to 3:1. Final mitigation ratios for specific habitat types will be determined based on the quality and quantity of resources impacted or, for projects within the planning area of a finalized habitat conservation plan, in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that all temporary impacts on native upland habitat would be offset through the restoration of all temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio.

M-BI-7d Permanent loss of nonnative grassland habitat shall be offset at a minimum 0.5:1 ratio consisting of creation, enhancement, restoration, or use of credits within an approved mitigation bank. Permanent and temporary project impacts within the planning area of a finalized habitat conservation plan shall be offset in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that all temporary impacts on nonnative grassland habitat would be offset through the restoration of all temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio.

M-BI-7e Restoration plans and revegetation construction documents needed to ensure the successful revegetation of impacted habitats shall be prepared by qualified personnel with experience in southern California ecosystems and native plant revegetation techniques. These plans shall include, at minimum, the following information: (a) the location of the mitigation site(s); (b) the plant species to be used, container sizes, and seeding rates; (c) the plant materials' sources and lead time; (d) a schematic depicting the mitigation areas; (e) a planting schedule; (f) a description of installation requirements, irrigation sources and methodology, erosion control, maintenance and monitoring requirements; (g) measures to

properly control exotic vegetation on site; (h) site-specific success criteria; (i) a detailed monitoring program; (j) contingency measures should the success criteria not be met; (k) a summary of the annual reporting requirements; and (l) identification of the responsible party(ies) for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

M-BI-8a Best management practices to address erosion and excess sedimentation shall be incorporated into the project plans. The plans shall at minimum show the locations of temporary fencing, drainage inlet protection, gravel bags, fiber rolls, temporary construction access paths, and any other procedures deemed appropriate by the County.

M-BI-8b Topsoil shall be stockpiled in disturbed areas currently lacking native vegetation. Stockpile areas shall be delineated on the project plans by a qualified biologist.

M-BI-8c The changing of oil, refueling, and other actions that could result in a release of a hazardous substance shall be restricted to designated areas that are a minimum of 100 feet from any documented special-status plant populations, sensitive habitats, or drainages. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" shall be designated on construction maps. Designated fueling areas shall be demarcated in the field by berms, sandbags, or other artificial barriers designed to further prevent accidental spills. Accidental spills of hazardous substances shall be immediately contained, cleaned up, and properly disposed.

M-BI-9a A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place.

M-BI-9b Prior to the onset of project activities, a qualified biologist shall flag areas to be avoided that contain sensitive biological resources, including appropriate buffers. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones.

M-BI-9c Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. Construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing to ensure that construction activity remains

within the defined limits evaluated and approved of by County staff. A qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts.

M-BI-9d Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application.

M-BI-9e Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and reviewed by a qualified biologist.

M-BI-10a Prior to conducting work in any individual work area, a biological assessment shall be conducted to inventory existing flora and faunal resources; provide a thorough assessment of rare plants and wildlife and rare natural communities that may be present on site; and inventory rare, threatened, endangered, and otherwise sensitive species in the work area(s) and within the area of potential effect.

M-BI-10b Permanent loss of riparian and wetlands habitat shall be offset with equal or better habitat function at ratios commensurate with project impacts, ranging from 1:1 to 3:1. Final mitigation ratios for specific habitat types shall be determined based on the quality and quantity of resources impacted or, for projects within the planning area of a finalized habitat conservation plan, in accordance with the applicable mitigation ratios and measures of that specific final plan. In the event that a finalized habitat conservation plan does not stipulate mitigation ratios for temporary impacts, it shall be assumed that all temporary impacts on riparian habitat would be offset through the restoration of temporarily impacted areas to pre-construction contours and vegetation types at a minimum 1:1 ratio.

M-BI-10c Restoration plans and revegetation construction documents needed to ensure the successful revegetation of impacted habitats shall be prepared by qualified personnel with experience in southern California ecosystems and native plant revegetation techniques. These plans shall include, at minimum, the following information: (a) the location of the mitigation site(s); (b) the plant species to be used, container sizes, and seeding rates; (c) the plant materials' sources and lead time; (d) a schematic depicting the mitigation areas; (e) a planting schedule; (f) a

description of installation requirements, irrigation sources and methodology, erosion control, maintenance and monitoring requirements; (g) measures to properly control exotic vegetation on site; (h) site-specific success criteria; (i) a detailed monitoring program; (j) contingency measures should the success criteria not be met; (k) a summary of the annual reporting requirements; and (l) identification of the responsible party(ies) for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

M-BI-10d Environmental permits from the regulating resource agencies shall be required prior to initiating project activities in state and federal jurisdictional waters of the United States, including wetlands. Such agencies may include the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Game, and California Coastal Commission.

M-BI-11a Best Management Practices to address erosion and excess sedimentation shall be incorporated into the project plans. At minimum, the plans shall show the locations of temporary fencing, drainage inlet protection, gravel bags, fiber rolls, temporary construction access paths, and any other procedures deemed appropriate by the County.

M-BI-11b Topsoil shall be stockpiled in disturbed areas currently lacking native vegetation. Stockpile areas shall be delineated on the project plans by a qualified biologist.

M-BI-11c The changing of oil, refueling, and other actions that could result in a release of a hazardous substance shall be restricted to designated areas that are a minimum of 100 feet from documented special-status plant populations, sensitive habitats, or drainages. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. “No-fueling zones” shall be designated on construction maps. Designated fueling areas shall be demarcated in the field by berms, sandbags, or other artificial barriers designed to further prevent accidental spills. Accidental spills of hazardous substances shall be immediately contained, cleaned up, and properly disposed.

M-BI-12a A qualified biological resources monitor shall be on site during initial vegetation clearing, grubbing, and earth-disturbing activities within sensitive biological resources to ensure protection measures (i.e., flagging, fencing, etc., as noted in the mitigation measures below) are in place.

M-BI-12b Prior to the onset of project activities, a qualified biologist shall flag areas to be avoided that contain sensitive biological resources, including appropriate buffers.

Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct or indirect impacts. Such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones.

M-BI-12c Temporary fencing shall be required where proposed grubbing, clearing, or grading is within 100 feet of sensitive biological resources. All construction limits shall be clearly delineated with temporary fencing, such as silt fencing or fiber rolls and orange construction fencing to ensure that construction activity remains within the defined limits evaluated and approved by County staff. A qualified biologist shall inspect the fencing and monitor construction activities occurring adjacent to the construction limits to avoid unauthorized impacts.

M-BI-12d Staging areas shall be located in developed/disturbed areas outside of existing wetlands, non-wetland waters, and native, rare upland areas. Staging areas will be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application.

M-BI-12e Construction vehicles and equipment shall use existing access roads and trails, where feasible. Where new construction access is required, all vehicles shall use the same route, even if this requires heavy equipment to back out of such areas. Construction access roads shall be delineated on the project plans submitted to the Department of Environmental Health as part of the grant application and shall be reviewed by a qualified biologist.

2.2 Cultural Resources

M-CR-1a Individual Vector Habitat Remediation Program-eligible projects that involve ground disturbance shall retain the services of a qualified archaeologist to conduct a survey and record search of the project site prior to project implementation to determine the potential for the project to encounter unknown archaeological resources. A cultural resources report shall be prepared to discuss potential impacts associated with the proposed project and identify mitigation measures to reduce all significant impacts to below a level of significance.

M-CR-1b If the survey/record search (conducted per M-CR-1a) identifies significant archaeological resources within the impact area or suggests that archaeological resources may be encountered, all earthmoving activities shall be monitored by a qualified archaeologist. However, if no significant resources are identified, monitoring shall not be required.

M-CR-2 If human remains are discovered during the monitoring of earthmoving activities, the provisions of California Public Resources Code Section 5097 and Health and Safety Code Section 7050.5 shall be implemented. Initially, the remains shall be stabilized and protected and the County Coroner shall be contacted. If the remains are determined to be Native American in origin, the Native American Heritage Commission shall be notified, which shall identify the Most Likely Descendant. Consultation with the Most Likely Descendant regarding disposition of the remains shall be conducted by the lead agency under the California Environmental Quality Act for the individual project to be implemented under the Vector Habitat Remediation Program.

M-CR-3 All projects implemented under the Vector Habitat Remediation Program that are subject to the Resource Protection Ordinance shall be required to be in compliance with the provisions in the Resource Protection Ordinance related to the protection of significant cultural resources.

2.2 Hydrology and Water Quality

M-HY-1 A drainage study shall be required for individual sites that will potentially affect drainage patterns (as determined during the required California Environmental Quality Act review of individual projects to be implemented under the Vector Habitat Remediation Program). The drainage study shall be performed according to standards in the County Drainage Design Manual and the Watershed Protection Ordinance. The drainage study shall identify and require mitigation measures to reduce all significant impacts to below a level of significance.

M-HY-2 If the future individual Vector Habitat Remediation Program-eligible projects have the potential to increase the flow rate or alter the existing drainage pattern (as determined during the required California Environmental Quality Act review of individual projects to be implemented under the Vector Habitat Remediation Program), a hydrology/drainage study shall be required for these individual sites to determine the pre- and post-construction peak runoff flow rates, durations, and velocities exiting the project site as well as the capacity of the existing drainage facility and potential downstream impacts. The hydrology/drainage study shall identify and require mitigation measures to reduce all significant impacts to below a level of significance.

M-HY-3 If future Vector Habitat Remediation Program-eligible projects have the potential to increase pollutants of concern, a hydrology/drainage study, including a water quality analysis of potential pollutants of concern, shall be required. The

hydrology/drainage and water quality study shall identify mitigation measures to reduce all significant impacts to below a level of significance.

M-HY-4 Project sites that disturb more than 1 acre of land shall be required to prepare a Stormwater Pollution Prevention Plan per National Pollutant Discharge Elimination System under the Clean Water Act. These Stormwater Pollution Prevention Plans shall ensure that adequate best management practices are used for each of the projects to reduce water quality impacts to below a level of significance. Given current regulations, projects shall be constructed and managed in accordance with regional requirements, which typically require acquisition of discharge permits and the use of best management practices to limit erosion, control sedimentation, and reduce pollutants in runoff.

M-HY-5 A hydrology and water quality study shall be required for individual Vector Habitat Remediation Program-eligible projects that could potentially contribute pollution in excess of applicable laws. If water quality pollutants are identified, a combination of construction, site design, source control, and treatment control best management practices shall be implemented to reduce all impacts on water quality to below a level of significance.

2.3 Noise

M-N-1 Operation of Vector Habitat Remediation Program–eligible projects shall be required to conform to the regulations governing noise limits within the applicable jurisdiction of the project. Construction and operational activities implemented under Vector Habitat Remediation Program–eligible projects shall conform to the requirements of the applicable noise element and/or municipal code governing acceptable noise as well as ground-borne vibration levels and construction activity hours.

M-N-2 Vegetation clearing activities for Vector Habitat Remediation Program–eligible projects shall be conducted outside of the bird and raptor breeding season (January 15 to September 15) to avoid impacts on nesting birds and raptors. In addition, if a Vector Habitat Remediation Program–eligible project is proposed near habitat for sensitive avian species, construction activities shall be required to conform to the 60 dB hourly L_{eq} noise level limit (through measures such as noise walls, muffling of equipment, etc.) to minimize potential impacts on sensitive avian species.

M-N-3 Operation of Vector Habitat Remediation Program–eligible projects shall be required to conform to the regulations governing noise limits within the applicable jurisdiction of the project. Construction and operational activities implemented under Vector Habitat Remediation Program–eligible projects shall conform to the requirements of the applicable noise element and/or municipal code governing acceptable noise as well as ground-borne vibration levels and construction activity hours.

M-N-4 Operation of Vector Habitat Remediation Program–eligible projects shall be required to conform to the regulations governing noise limits within the applicable jurisdiction of the project. Construction and operational activities implemented under Vector Habitat Remediation Program–eligible projects shall conform to the requirements of the applicable noise element and/or municipal code governing acceptable noise as well as ground-borne vibration levels and construction activity hours.

Environmental Design Considerations

As noted in earlier chapters of this PEIR, the analysis presented in this PEIR relies on certain assumptions regarding the nature and scale of anticipated project activities as well as the requirement of all VHRP-eligible projects to comply with the environmental design considerations (or design features) listed below.

2.1 Biological Resources

1. Activities conducted under the VHRP will be consistent with ongoing regional planning efforts throughout San Diego County and would not interfere with the assembly of the MSCHP and MHCP conservation areas.
2. Vegetation removal will be that necessary to reduce mosquito breeding habitat and strips of vegetation shall be retained, if feasible. Clear cutting of large contiguous areas of native vegetation shall not occur.
3. VHRP-eligible projects will be consistent with local policies and ordinances protecting biological resources and will be consistent with the goal of promoting public health, safety, and welfare through the reduction of mosquito breeding habitat.

2.2 Cultural Resources

1. VHRP-eligible projects will be designed and constructed to avoid potential impacts on paleontological resources.

2.2 Hydrology and Water Quality

1. VHRP-eligible projects will be designed and constructed in accordance with the applicable standards presented in the County Stormwater Standards Manual or the Additional Requirements for Land Use Disturbance Activities.
2. VHRP-eligible projects will prepare a Stormwater Management Plan and applicable BMPs to ensure project activities do not result in significant impacts to water quality.
3. Project sites that disturb more than 1 acre of land will be required to prepare a SWPPP per the NPDES under the CWA. These SWPPPs will ensure that adequate BMPs are used for each of the projects to reduce water quality impacts to below a level of significance.
4. All VHRP-eligible projects will be required to be designed, constructed, and maintained according to federal, state, and local regulations.

2.3 Noise

1. Construction including demolition activities would occur between the hours of 7 a.m. and 7 p.m. consistent with the County's Noise Ordinance.
2. When averaged over 24 hours, construction noise for VHRP-eligible projects will be below the CNEL exterior location threshold.
3. During operation of VHRP-eligible projects, mechanical equipment used to reduce mosquito breeding habitat will not operate 24 hours a day and will not expose land uses to noise levels in exceed of the applicable 1-hour average sound level limits.

3.1.1 Aesthetics and Visual Quality

1. A landscape plan will be prepared in conformance with the landscaping guidelines of the local jurisdiction.
2. Implementation of water management concepts will not construct or install components or systems that are more than 3 feet above the existing dominant feature(s) in the project site.
3. All VHRP-eligible projects will comply with applicable federal, state, and local regulations, including the design standards established by the County to regulate the visual quality of development within designated scenic highway corridors.
4. Vegetation removal will be that necessary to reduce mosquito breeding habitat and strips of vegetation shall be retained, if feasible. Clear butting of large contiguous areas of vegetation shall not occur.

3.1.2 Air Quality

1. Dust control measures to reduce fugitive dust during construction will be implemented.
2. Grading and/or dust control ordinances of the local jurisdiction in which projects are located will be complied with.
3. The contractor(s) for construction of the future projects will be required to minimize land disturbance to the extent feasible, and all active grading areas will be watered at least twice daily to decrease ambient particulate matter.
4. Speed limits will be required to restrict vehicles traveling on unpaved roads, and trucks hauling soil material will be required to be covered.

3.1.3 Geology and Soils

1. SWPPPs will be prepared and implemented for project sites that disturb more than 1 acre of land. The SWPPPs will identify specific BMPs to minimize erosion and control sedimentation.
2. All VHRP-eligible projects will be required to comply with all applicable federal, state, and local regulations, guidelines, etc., including existing grading and construction standards.

3.1.4 Hazards and Hazardous Materials

1. VHRP-eligible projects will comply with federal, state, and local regulations governing worker safety, the preparation of emergency response programs, and the use of controls to limit exposure to workers.
2. VHRP-eligible project will comply with the applicable federal, state, and local regulations governing the treatment, storage, and disposal of hazardous wastes.
3. If VHRP-eligible projects are located on or within the vicinity of a burn ash site, then the project will be required to comply with burn ash site remediation requirements provided by the CIWMB and California Department of Toxic Substances Control.
4. If a VHRP-eligible project is located on or within the vicinity of a formerly used defense site, then the project must obtain an RCRA Emergency Permit (if unexploded ordinance is unexpectedly found) or obtain approval of a Removal Action Workplan/Remedial Action Plan to remediate the site prior to construction.
5. VHRP-eligible projects will not require the construction or demolition of structures.

3.1.5 Mineral Resources

1. As individual projects are proposed under the VHRP, they will be required to assess the potential for any onsite occurrences of a known mineral resource of value to the region. Projects will be designed and constructed to avoid impacts on known mineral resources and should not preclude the future extraction of mineral resources.

3.1.7 Transportation and Traffic

1. A Traffic Control Plan will be prepared and implemented for VHRP-eligible projects.
2. The Traffic Control Plan will identify alternative pedestrian or bicycle routes as necessary for use during construction activities.
3. Construction vehicles and equipment would be accommodated on VHRP-eligible project sites and would not require the creation of additional on- or offsite parking.
4. Construction and maintenance activities will not conflict with adopted policies, plans, or programs supporting alternative transportation such as bus turnouts.
5. Individual VHRP-eligible projects would not generate over 2,400 ADT and would not generate over 200 peak hour trips.

3.1.8 Utilities and Service Systems

1. Construction and demolition materials as well as vegetation would be recycled or salvaged in accordance with County ordinances.

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APPENDIX A NOTICE OF PREPARATION AND RESPONSES

County of San Diego

GARY W. ERBECK
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(619) 338-2222 FAX (619) 338-2088
1-800-253-9933
www.sdcdeh.org

JACK MILLER
ASSISTANT DIRECTOR

NOTICE OF PREPARATION
PROGRAM ENVIRONMENTAL IMPACT REPORT
FOR VECTOR HABITAT REMEDIATION PROGRAM PROJECT
SAN DIEGO, SAN DIEGO COUNTY

PROJECT APPLICANT: COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH

January 23, 2009

The County of San Diego (County) is the lead agency in the preparation of a Program Environmental Impact Report (PEIR) for the Vector Habitat Remediation Program as specified by section 15168 of the California Environmental Quality Act (CEQA) Guidelines.

This notice is issued pursuant to Section 15082 of the State CEQA Guidelines. It is intended to inform those persons and organizations that may be concerned with the environmental effects of the project. Those public agencies with specific statutory responsibilities are requested to indicate their specific role in the project approval process. The Initial Study for this project can be reviewed at the County of San Diego Department of Public Works, Department of Environmental Health, and Department of Planning and Land Use as well as at each local jurisdictions planning department within the County of San Diego as listed below, and on-line at http://www.sdcounty.ca.gov/dpw/environment/envrnsvcs.html.

County of San Diego
Department of Public Works
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

County of San Diego
Department of Planning and Land Use
5201 Ruffin Road
San Diego, CA 92123

County of San Diego
Department of Environmental Health
9325 Hazard Way
San Diego, CA 92123

City of Carlsbad
Planning Department
1635 Faraday Avenue
Carlsbad, CA 92008

City of Chula Vista
Department of Planning and Building
276 Fourth Avenue
Chula Vista, CA 91910

City of Coronado
Department of Planning and Zoning
1825 Strand Way
Coronado, CA 92118

City of Del Mar
Community Development Department
1050 Camino del Mar
Del Mar, CA 92014

City of El Cajon
Community Development Department
200 East Main Street
El Cajon, CA 92020

City of Encinitas
Department of Planning and Building
505 South Vulcan Avenue
Encinitas, CA 92024

City of Escondido
Planning Division
201 North Broadway
Escondido, CA 92025

City of Imperial Beach
Community Development Department
825 Imperial Beach Boulevard
Imperial Beach, CA 91932

City of La Mesa
Community Development Department
8130 Allison Avenue
La Mesa, CA 91941

City of Lemon Gove
Community Development Department
3232 Main Street
Lemon Grove, CA 91945

National City
Department of Planning and Building
1243 National City Boulevard
National City, CA 91950

City of Oceanside
Community Development Department
300 North Coast Highway
Oceanside, CA 92054

City of Poway
Development Services Department
13325 Civic Center Drive
Poway, CA 92064

City of San Diego
Development Services Center
1222 First Avenue
San Diego, CA 92101

City of San Marcos
Development Services Department
1 Civic Center Drive
San Marcos, CA 92069

City of Santee
Development Services Department
10601 Magnolia Avenue
Santee, CA 92071

City of Solana Beach
Community Development Department
635 South Highway 101
Solana Beach, CA 92075

City of Vista
Community Development Department
600 Eucalyptus Avenue
Vista, CA 92084

Because of the time limits mandated by State law, responses should be sent at the earliest possible date, but no later than 30 days after receipt of this notice. Please send your response to:

County of San Diego
Department of Environmental Health, Vector Control Program
9325 Hazard Way
San Diego, CA 92123

Attn: Kerry McNeill
Fax: (858) 694-3575
e-mail: kerry.mcneill@sdcounty.ca.gov

ENVIRONMENTAL DOCUMENT

The environmental document will be a program-level EIR as defined in Section 15168 of the CEQA Guidelines. The PEIR is intended to allow the County to examine the overall effects of the proposed Vector Habitat Remediation Program (VHRP) and to take steps to avoid environmental impacts.

PROJECT LOCATION

The project is located within the County of San Diego. The VHRP would review and potentially provide funding to projects located anywhere within the County (excluding military and tribal lands) that demonstrates the reduction or elimination of mosquito breeding areas and that demonstrates a balance with hydrologic, water quality, aesthetic, and biological resource values.

PROJECT DESCRIPTION

The County of San Diego's Department of Environmental Health, Vector Control Program has initiated the development of a Vector Habitat Remediation Program to further reduce and/or eliminate mosquito breeding grounds in established wetlands, flood control facilities, effluent treatment ponds, and stormwater treatment facilities. The goal of the VHRP is to fund projects that eliminate or reduce mosquito-breeding habitat in a manner that protects human populations and animals from mosquito-borne diseases with the need to balance the water quality, biological, aesthetic, and hydrologic values. Future projects that will result in new effects or new mitigation measures that are not addressed in the PEIR will need to go through subsequent CEQA review.

POTENTIAL ENVIRONMENTAL IMPACTS

An analysis of the environmental impacts is currently being conducted. There are potentially significant environmental effects that may occur to Biological Resources, Cultural Resources, Hydrology and Water Quality, and Aesthetics as a result of implementation of the project. These issues, along with an analysis of project alternatives, cumulative effects, and potential for growth inducement, will be analyzed and discussed in the PEIR for the VHRP.

LIST OF AGENCIES, ORGANIZATIONS, AND INDIVIDUALS TO RECEIVE THIS NOTICE OF PREPARATION

California Office of Planning and Research – State Clearinghouse
California Coastal Commission
California Department of Public Health, Vector Borne Diseases Section
California Department of Fish and Game
California Department of Transportation, District 11
California Regional Water Quality Control Board – San Diego Region
San Diego Association of Governments
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
County of San Diego, Department of Planning and Land Use
County of San Diego, Department of Agriculture and Weights and Measures
County of San Diego Flood Control District
County of San Diego, Watershed Protection Program Department of Public Works
City of Carlsbad, Planning Department, Stormwater Program
City of Chula Vista, Department of Planning and Building, Stormwater Program
City of Coronado, Department of Planning and Zoning, Stormwater Program
City of Del Mar, Community Development Department, Stormwater Program
City of El Cajon, Community Development Department, Stormwater Program
City of Encinitas, Department of Planning and Building, Stormwater Program
City of Escondido, Planning Division, Stormwater Program
City of Imperial Beach, Community Development Department, Stormwater Program
City of La Mesa, Community Development Department, Stormwater Program
City of Lemon Grove, Community Development Department, Stormwater Program
National City, Department of Planning and Building, Stormwater Program
City of Oceanside, Community Development Department
City of San Diego, Pollution Prevention Division, Stormwater Department
City of Poway, Development Services Department, Stormwater Program
City of San Diego, Development Services Center, Stormwater Program
City of San Marcos, Development Services Department, Stormwater Program
City of Santee, Development Services Department, Stormwater Program
City of Solana Beach, Community Development Department, Stormwater Program
City of Vista, Community Development Department, Stormwater Program

Port of San Diego
San Elijo Lagoon Conservancy, Doug Gibson
Southern California Wetlands Recovery Project, Shirley Innecken
Center for Natural Lands Management, Markus Spiegelberg
San Diego River Park Foundation, Rob Hutsel
Los Peñasquitos Lagoon Foundation, Mike Hastings
Anza-Borrego Foundation
Back Country Land Trust
Batiquitos Lagoon Foundation
Buena Vista Audubon
California Native Plant Society
Conservation Biology Institute
Desert Protective Council
Endangered Habitats League
Escondido Creek Conservancy
Fallbrook Land Conservancy
Friends of Daley Ranch
Friends of Goodan Ranch & Sycamore Canyon Open Space Preserve
Friends of Hellhole Canyon Open Space Preserve
Friends of Los Penasquitos Canyon Preserve
Lakeside's River Park Conservancy
Preserve Calvera
San Diego Archaeological Center
San Diego Audubon
San Diego River Park Foundation
San Diego Tracking Team
San Dieguito River Valley Conservancy
Southwest Wetlands Interpretive Association
Tierra Miguel Foundation
Volcan Mountain Preserve Foundation
Wildlife Research Institute
Sierra Club
University of California at San Diego
San Diego State University
University of California at Riverside

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

Notice of Preparation

January 26, 2009

To: Reviewing Agencies

Re: Vector Habitat Remediation Program
SCH# 2009011067

Attached for your review and comment is the Notice of Preparation (NOP) for the Vector Habitat Remediation Program draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Kerry McNeill
San Diego County
9325 Hazard Way
San Diego, CA 92123

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Assistant Deputy Director & Senior Planner, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2009011067
Project Title Vector Habitat Remediation Program
Lead Agency San Diego County

Type NOP Notice of Preparation

Description County of San Diego's Department of Environmental Health, Vector Control Program has initiated the development of a Vector Habitat Remediation Program to further reduce and/or eliminate mosquito breeding grounds in established wetlands, flood control facilities, effluent treatment ponds, and stormwater facilities. The goal of VHRP is to fund projects that eliminate or reduce mosquito-breeding habitat in a manner that protects human populations and animals from mosquito-borne diseases with the need to balance the water quality, biological, aesthetic, and hydrologic values. Future projects that will result in new effects or mitigation measures that are not addressed in PEIR will need to go through subsequent CEQA review.

Lead Agency Contact

Name Kerry McNeill
Agency San Diego County
Phone (858) 694-2629 **Fax**
email
Address 9325 Hazard Way
City San Diego **State** CA **Zip** 92123

Project Location

County San Diego
City
Region
Cross Streets
Lat / Long
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Noise; Soil Erosion/Compaction/Grading; Vegetation; Water Quality; Wetland/Riparian

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Reviewing Agencies Resources Agency; California Coastal Commission; Department of Conservation; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 5; Department of Food and Agriculture; Department of Health Services; Native American Heritage Commission; Caltrans, District 7; State Water Resources Control Board, Division of Water Quality; Department of Toxic Substances Control; Department of Pesticide Regulation; Regional Water Quality Control Board, Region 9

Date Received 01/23/2009 **Start of Review** 01/23/2009 **End of Review** 02/23/2009

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: San Diego

SCH# [illegible]

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Mike Sotelo
- [x] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [x] **Dept. of Conservation**
  Rebecca Salazar
- [ ] **California Energy Commission**
  Dale Edwards
- [ ] **Cal Fire**
  Allen Robertson
- [x] **Office of Historic Preservation**
  Wayne Donaldson
- [x] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **Central Valley Flood Protection Board**
  Jon Yego
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [x] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou
- [ ] _____
  Conservancy

Fish and Game

- [ ] **Depart. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Game Region 1**
  Donald Koch
- [ ] **Fish & Game Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Game Region 2**
  Jeff Drongesen
- [ ] **Fish & Game Region 3**
  Robert Floerke
- [ ] **Fish & Game Region 4**
  Julie Vance
- [x] **Fish & Game Region 5**
  Don Chadwick
  Habitat Conservation Program
- [ ] **Fish & Game Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M**
  Gabrina Getchel
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  George Isaac
  Marine Region

Other Departments

- [x] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [x] **Dept. of Public Health**
  Bridgette Binning
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Linda Flack
- [ ] **Office of Emergency Services**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Leo Wong
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Marina Brand
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [ ] **California Highway Patrol**
  Scott Loetscher
  Office of Special Projects
- [ ] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Bruce de Terra
- [ ] **Caltrans, District 4**
  Lisa Carboni
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Michael Navarro
- [x] **Caltrans, District 7**
  Elmer Alvarez
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Ryan P. Chamberlain

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
  - [ ] Transportation Projects
    Douglas Ito
  - [ ] Industrial Projects
    Mike Tollstrup
- [ ] **California Integrated Waste Management Board**
  Sue O'Leary
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [x] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Steven Herrera
  Division of Water Rights
- [x] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [x] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [x] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____

Last Updated on 01/07/2009

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

February 5, 2009

Kerry McNeill, Program Manager
COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH
9325 Hazard Way
San Diego, CA 92123

Re: SCH#2009011067; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the Vector Habitat Remediation Program; San Diego County, California

Dear Kerry McNeill:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 designated to protect California's Native American Cultural Resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the 2007 CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

√ Contact the appropriate California Historic Resources Information Center (CHRIS) for possible 'recorded sites' in locations where the development will or might occur.. Contact information for the Information Center nearest you is available from the State Office of Historic Preservation (916/653-7278)/ http://www.ohp.parks.ca.gov. The record search will determine:

- If a part or the entire APE has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

√ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

√ The Native American Heritage Commission (NAHC) performed:

* A Sacred Lands File (SLF) search of the project 'area of potential effect (APE)': The results: No known Native American Cultural Resources were identified within one-half mile of the 'area of potential effect' (APE)..; However the NAHC SLF is not exhaustive and local tribal contacts should be consulted from the attached list and the there are Native American cultural resources in close proximity..

- The NAHC advises the use of Native American Monitors, also, when professional archaeologists or the equivalent are employed by project proponents, in order to ensure proper identification and care given cultural resources that may be discovered. The NAHC, FURTHER, recommends that contact be made with Native American Contacts on the attached list to get their input on potential IMPACT of the project (APE) on cultural resources.. In some cases, the existence of a Native American cultural resources may be known only to a local tribe(s) or Native American individuals or elders.
- √ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Again, a culturally-affiliated Native American tribe may be the only source of information about a Sacred Site/Native American cultural resource.

- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans.

* CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

√ Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner can determine whether the remains are those of a Native American. . Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony.

√ Lead agencies should consider avoidance, as defined in §15370 of the California Code of Regulations (CEQA Guidelines), when significant cultural resources are discovered during the course of project planning and implementation

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Native American Contacts

Cc: State Clearinghouse

Native American Contacts
San Diego County
February 5, 2009

Barona Group of the Capitan Grande
Edwin Romero, Chairperson
1095 Barona Road Diegueno
Lakeside , CA 92040
sue@barona-nsn.gov
(619) 443-6612
619-443-0681

Santa Ysabel Band of Diegueno Indians
Johnny Hernandez, Spokesman
PO Box 130 Diegueno
Santa Ysabel , CA 92070
brandietaylor@yahoo.com
(760) 765-0845
(760) 765-0320 Fax

La Posta Band of Mission Indians
Gwendolyn Parada, Chairperson
PO Box 1120 Diegueno
Boulevard , CA 91905
(619) 478-2113
619-478-2125

Sycuan Band of the Kumeyaay Nation
Danny Tucker, Chairperson
5459 Sycuan Road Diegueno/Kumeyaay
El Cajon , CA 92021
ssilva@sycuan-nsn.gov
619 445-2613
619 445-1927 Fax

Manzanita Band of Kumeyaay Nation
Leroy J. Elliott, Chairperson
PO Box 1302 Kumeyaay
Boulevard , CA 91905
(619) 766-4930
(619) 766-4957 Fax

Viejas Band of Mission Indians
Bobby L. Barrett, Chairperson
PO Box 908 Diegueno/Kumeyaay
Alpine , CA 91903
daguilar@viejas-nsn.gov
(619) 445-3810
(619) 445-5337 Fax

San Pasqual Band of Mission Indians
Allen E. Lawson, Chairperson
PO Box 365 Diegueno
Valley Center , CA 92082
(760) 749-3200
(760) 749-3876 Fax

Kumeyaay Cultural Historic Committee
Ron Christman
56 Viejas Grade Road Diegueno/Kumeyaay
Alpine , CA 92001
(619) 445-0385

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2009011067; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the Vector Habitat REmediation Program; San Diego County, California.

Native American Contacts
San Diego County
February 5, 2009

Campo Kumeyaay Nation
Monique LaChappa, Chairperson
36190 Church Road, Suite 1 Kumeyaay
Campo , CA 91906
chairman@campo-nsn.gov
(619) 478-9046
(619) 478-5818 Fax

Pala Band of Mission Indians
Robert H. Smith, Chairperson
12196 Pala Mission Road, PMB 50 Luiseno
Pala , CA 92059 Cupeno
(760) 891-3500
(760) 742-1411 Fax

Jamul Indian Village
Kenneth Meza, Chairperson
P.O. Box 612 Diegueno/Kumeyaay
Jamul , CA 91935
jamulrez@sctdv.net
(619) 669-4785
(619) 669-48178 - Fax

Pauma & Yuima
Christobal C. Devers, Chairperson
P.O. Box 369 Luiseno
Pauma Valley , CA 92061
paumareservation@aol.com
(760) 742-1289
(760) 742-3422 Fax

Los Coyotes Band of Mission Indians
Katherine Saubel, Spokesperson
P.O. Box 189 Cahuilla
Warner , CA 92086
loscoyotes@earthlink.net
(760) 782-0711
(760) 782-2701 - FAX

Rincon Band of Mission Indians
Angela Veltrano, Rincon Culture Committee
P.O. Box 68 Luiseno
Valley Center , CA 92082
council@rincontribe.org
(760) 749-1051
(760) 749-8901 Fax

Mesa Grande Band of Mission Indians
Mark Romero, Chairperson
P.O Box 270 Diegueno
Santa Ysabel , CA 92070
mesagrandeband@msn.com
(760) 782-3818
(760) 782-9092 Fax

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas
P.O. Box 775 Diegueno -
Pine Valley , CA 91962
(619) 709-4207

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Native American Contacts
San Diego County
February 5, 2009

Inaja Band of Mission Indians
Rebecca Osuna, Spokesperson
309 S. Maple Street Diegueno
Escondido , CA 92025
(760) 737-7628
(760) 747-8568 Fax

Rincon Band of Mission Indians
Bo Mazzetti, Interim Chairperson
P.O. Box 68 Luiseno
Valley Center , CA 92082
council@rincontribe.org
(760) 749-1051
(760) 749-8901 Fax

Kumeyaay Cultural Repatriation Committee
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Lakeside , CA 92040
(619) 742-5587
(619) 443-0681 FAX

Ewiiaapaayp Tribal Office
Michael Garcia, Vice-Chairman/EPA Director
PO Box 2250 Kumeyaay
Alpine , CA 91903-2250
michaelg@leaningrock.net
(619) 445-6315 - voice
(619) 445-9126 - fax

San Luis Rey Band of Mission Indians
Russell Romo, Chairman
12064 Old Pomerado Road Luiseno
Poway , CA 92064
(858) 748-1586

San Luis Rey Band of Mission Indians
Carmen Mojado, Co-Chair
1889 Sunset Drive Luiseno
Vista , CA 92081
cjmojado@slrmissionindians.org
(760) 724-8505
(760) 724-2172 - FAX

Pauma Valley Band of Luiseño Indians
Bennae Calac, Chair - Repatriation Committee
P.O. Box 369 Luiseno
Pauma Valley , CA 92061
bennaecalac@aol.com
(760) 617-2872
(760) 742-3422 - FAX

Cupa Cultural Center (Pala Band)
Shasta Gaughen, Assistant Director
35008 Pala-Temecula Rd.PMB Box 445 Luiseno
Pala , CA 92059
cupa@palatribe.com
(760) 742-1590
(760) 742-4543 - FAX

This list is current only as of the date of this document.

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Native American Contacts
San Diego County
February 5, 2009

Clint Linton
P.O. Box 507 Diegueno/Kumeyaay
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Santa Ysabel Band of Diegueno Indians
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Sycuan Band of the Kumeyaay Nation
Sydney Morris, Environmental Coordinator
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El Cajon , CA 92021
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(619) 445-1927-Fax

Mel Vernon
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Escondido , CA 92026
melvern@aol.com
(760) 746-8692
(760) 703-1514 - cell

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State of California - The Resources Agency ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201

February 23, 2009

Ms. Kerry McNeill
County of San Diego
Department of Environmental Health
Vector Control Program
9325 Hazard Way
San Diego, CA 92123

Subject: Comments on the Notice of Preparation for the Program Environmental Impact Report for the Vector Habitat Remediation Program Project (SCH# 2009011067)

Dear Ms. McNeill:

The California Department of Fish and Game (Department) has reviewed the above-referenced Notice of Preparation (NOP) of a Program Environmental Impact Report (PEIR) for the Vector Habitat Remediation Program Project. The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (California Environmental Quality Act [CEQA] Guidelines Section 15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines Section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code Section 2050 et seq.) and Fish and Game Code Section 1600 et seq. The Department also administers the Natural Community Conservation Planning Program (NCCP).

The proposed project involves the development of a Vector Habitat Remediation Program (VHRP) that would focus on further reducing and/or eliminating mosquito breeding areas in established wetlands, flood control facilities, effluent treatment ponds, and stormwater treatment facilities throughout the County of San Diego (County). The VHRP would be administrated by the County's Department of Environmental Health, which would be responsible for reviewing and funding projects that concentrate on eliminating or reducing mosquito breeding habitat. In the process of evaluating the type of projects to fund, consideration would be given to evaluating water quality, biological, aesthetic, and hydrologic values, in conjunction with project proposals. The supplemental information provided with the NOP included the CEQA initial study checklist, which identified the potential broader environmental-related impacts that could result from the implementation of the VHRP. The NOP identified that for those future activities that would result in additional environmental effects or require new mitigation measures that were not considered in the PEIR, subsequent CEQA analysis would be required.

The Department offers the following comments and recommendations to assist the County in avoiding or minimizing potential project impacts on biological resources.

Specific Comments

1. The County has an approved Multiple Species Conservation Program (MSCP) Subarea Plan and Implementing Agreement under the NCCP program. The draft PEIR for the VHRP project must ensure and verify that all requirements and conditions of the Subarea Plan and

Implementing Agreement are met. The draft PEIR should address biological issues that are not addressed in the Subarea Plan and Implementing Agreement, such as specific impacts to mitigation requirements for wetlands or sensitive species and habitats that are not covered by the Subarea Plan and Implementing Agreement. Issue areas in the DEIR that may be influenced by the Subarea Plan and Implementing Agreement include "Land Use", "Landform Alteration/Visual Quality," "Traffic/Circulation," "Biological Resources," "Drainage/Urban Runoff/Water Quality," "Noise," and "Cumulative Effects". Additionally, the draft PEIR should describe why the proposed project, irrespective of other alternatives to the project, is consistent with and appropriate in the context of the Subarea Plan. Furthermore, since the scope of activities associated with the VHRP would cover the entire County, the draft PEIR should evaluate the project's conformance in terms of compatibility to the ongoing North and East County MSCP Planning efforts and all other NCCP participants that have adopted and/or draft MSCP Subarea Plans (e.g., City of San Diego Subarea Plan, City of Chula Vista Subarea Plan, draft City of Santee Subarea Plan), or Multiple Habitat Conservation Program (MHCP) Subarea Plans (e.g., City of Carlsbad Habitat Management Plan, City of Oceanside draft Subarea Plan).

2. The draft PEIR should include a discussion of the location and type of potential mitigation (on- or off-site preservation, conservation easement, mitigation bank credits, land acquisition, etc.) to be used for impacts to sensitive habitats and species resulting from development of a proposed project. Impacts to several listed species would require specific mitigation measures that may limit appropriate mitigation sites: (1) federally-designated critical habitat for the coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*) would require mitigation within the same geographic polygon of critical habitat for each species, and (2) impacts to occupied arroyo toad (*Bufo californicus*) habitat would require mitigation within the same watershed. Additionally, an evaluation should be provided for those areas previously allocated as biological mitigation for impacted habitat elsewhere and that could subsequently be impacted by projects eligible under the VHRP.

3. One of the purposes of CEQA is to "prevent significant, avoidable damage to the environment by requiring changes in projects through the use of <u>alternatives</u> or mitigation measures when the governmental agency finds the changes to be feasible" (CEQA Guideline, Section 15002 (a)(3); emphasis added). Because of the potential for projects to occur within environmentally sensitive areas the CEQA alternatives analysis for this project is extremely important. The Department is particularly interested in the draft PEIR describing "range of reasonable alternative to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives," as required by Section 15126.6(a) of the CEQA Guideline. The alternatives are to include "alternative [that] would impede to some degree the attainment of the project objectives, or would be more costly" (Section 15126.6[b] of the CEQA Guidelines). "The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making" (Section 15126.6[f] of the CEQA Guidelines). The Department will consider the alternatives analyzed in the context of their relative impacts on biological resources on both a local and regional level. Furthermore, in order for the Department to utilize the CEQA document as a Responsible Agency, the alternative must include those which avoid or otherwise minimize impacts to sensitive biological resources that are regulated by the Fish and Game Code. The County must ensure in the process of identifying the components that would ultimately be incorporated into the VHRP that a full range of alternatives which would avoid or minimize impacts to biological resources are not precluded at the PEIR stage.

4. The PEIR can provide an opportunity for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action, while also allowing the lead agency to consider broad policy alternatives and program wide mitigation measures (CEQA Guideline §15168 (b)(1)&(4)). The draft PEIR should avoid generalized, broad-scale discussion of impacts (if possible) and required mitigation measures The PEIR should outline the need for subsequent CEQA analysis for the development of individual components of the VHRP, including the specific criteria that would mandate further environmental review. Any opportunity that provides specific information on anticipated project-related impacts and proposed mitigation (e.g., providing an overview of the permit performance criteria for program-eligible projects) would be beneficial at this stage in the environmental review process.

5. The draft PEIR should outline the various County regulations that the proposed project would be subject to (e.g., grading permits), to determine whether the project will be afforded the third party beneficiary (TPB) status for incidental take authorization under a given adopted MSCP/MHCP Subarea Plans. If a proposed project is not afforded the TPB status, then individual projects would require take authorization from the U.S. Fish and Wildlife Service (Service) and the Department for the federal and state, respectively, listed species determined to be taken by the project.

6. The Department has responsibility for wetland and riparian habitats. It is the policy of the Department to strongly discourage development in wetlands or conversion of wetlands to uplands. We oppose any development or conversion which would result in a reduction of wetland acreage or wetland habitat values, unless, at a minimum, project mitigation assures there will be "no net loss" of either wetland habitat values or acreage. Development and conversion include but are not limited to conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether intermittent or perennial, should be retained and provided with substantial setbacks which preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife populations. Mitigation measures to compensate for impacts to mature riparian corridors must be included in the draft PEIR and must compensate for the loss of function and value of a wildlife corridor.

   a) The project area supports aquatic, riparian, and wetland habitats; therefore, a jurisdictional delineation of the creeks and their associated riparian habitats should be included in the draft PEIR. The delineation should be conducted pursuant to the Service's wetland definition adopted by the Department.[1] Please note that some wetland and riparian habitats subject to the Department's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers.

   b) Unless the proposed project avoids riparian and wetland habitats it will require a Streambed Alteration Agreement (SAA), pursuant to Section 1600 *et seq.* of the Fish and Game Code, prior to the commencement of any activity that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank (which may include associated riparian resources) of a river, stream or lake, or use material from a streambed. The Department's issuance of a SAA for a project that is subject to CEQA will require CEQA compliance actions by the Department as a responsible agency. The Department as a responsible agency under CEQA may consider the local jurisdiction's

[1] Cowardin, Lewis M., et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service.

(lead agency) Negative Declaration or Environmental Impact Report for the project. To minimize additional requirements by the Department pursuant to Section 1600 *et seq.* and/or under CEQA, the document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the SAA.[2]

7. Take authorization pursuant to the California Endangered Species Act (CESA) and the Federal Endangered Species Act must be obtained if the project has the potential to result in "take" of state and/or federally listed species of plants or animals (e.g., least Bell's vireo, southwestern willow flycatcher), either during construction or over the life of the project. Permits authorizing take are issued to conserve, protect, enhance, and restore listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain take authorization. Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of a CESA permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of CESA. In the event take authorization is required for the proposed project the following items would be required:

   a) Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirement s for a CESA permit.

   b) Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

8. If is the potential that future projects eligible for VHRP funds could be associated with conservation lands owned and/or managed by the Department. At a minimum, a discussion should be provided that identifies these lands (and management responsibilities) and acknowledging the potential impacts that program-eligible projects could have on the long-term management objectives of these areas. Furthermore, as a condition of the broader permit performance criteria that is developed under the VHRP or the scenarios that could occur with the implementation of a particular project, if projects are proposed on Department lands, the project applicant will be required to obtain access authorization after consulting/coordinating with the Departments regional Lands Management Program staff. We recommend early consultation/coordination in the project development process to ensure the project is consistent with the Department's management goals for these areas and that adequate avoidance, minimization and mitigation measures are in place.

9. To guide project planning to avoid/minimize impacts to listed species, we recommend that protocol level surveys be conducted for any listed species with the potential to occur within the project site. Surveys should be performed no more than one year prior to an application for a permit from either the Department or the Service.

General Comments

1. To enable the Department to adequately review and comment on the proposed project from the standpoint of the protection of plants, fish and wildlife, we recommend the following information be included in the draft PEIR.

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[2] A notification package for a SAA may be obtained by writing to: Department of Fish and Game, 4949 Viewridge Avenue, San Diego, CA 92123, by calling (858) 636-3160, or by accessing the Department's web site at www.dfg.ca.gov/habcon/1600 .

a) The document should contain a complete discussion of the purpose and need for, and description of, the proposed project, including all staging areas and access routes to the construction and staging areas.

b) A range of feasible alternatives should be included to ensure that alternatives to the proposed project are fully considered and evaluated; the alternatives should avoid or otherwise minimize impacts to sensitive biological resources. Specific alternative locations should be evaluated in areas with lower resource sensitivity where appropriate.

Biological Resources within the Project's Area of Potential Effect

2. The document should provide a complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, sensitive, and locally unique species and sensitive habitats. This should include a complete floral and faunal species compendium of the entire project site, undertaken at the appropriate time of year. The draft PEIR should include the following information.

   a) CEQA Guidelines, §15125(c), direct that knowledge of the regional setting is critical to an assessment of environmental impacts, and that special emphasis should be placed on resources that are rare or unique to the region.

   b) A thorough assessment of rare plants and rare natural communities, following the Department's Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (Attachment 1, December 1983, revised May 2000).

   c) A current inventory of the biological resources associated with each habitat type on site and within the area of potential effect. The Department's California Natural Diversity Database in Sacramento should be contacted at (916) 322-2493 or www.dfg.ca.gov/biogeodata/cnddb/ to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code.

   d) An inventory of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect. Species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, Section 15380). This should include sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the Service.

Analyses of the Potential Project-Related Impacts on the Biological Resources

3. The draft PEIR should provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. This discussion should focus on maximizing avoidance, and minimizing impacts.

   a) A discussion of impacts associated with increased lighting, noise, human activity, changes in drainage patterns, changes in water volume, velocity, and quality, soil erosion, and /or sedimentation in streams and water courses on or near the project site, with mitigation measures proposed to alleviate such impacts should be included.

b) Project impacts should be analyzed relative to their indirect impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (*e.g.*, preserve lands associated with an NCCP). Impacts on, and maintenance of, wildlife corridor/ movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated and provided. A discussion of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage. The latter subject should address: project-related changes on drainage patterns on and downstream of the project site; the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site. The discussions should also address the proximity of the extraction activities to the water table, whether dewatering would be necessary, and the potential resulting impacts on the habitat, if any, supported by the groundwater.

c) The zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document.

d) A cumulative effects analysis should be developed as described under CEQA Guidelines, §15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Mitigation for the Project-related Biological Impacts

4. The draft PEIR should include measures to fully avoid and otherwise protect Rare Natural Communities (Attachment 2) from project-related impacts. The Department considers these communities as threatened habitats having both regional and local significance.

5. The draft PEIR should include mitigation measures for adverse project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

6. For proposed preservation and/or restoration, the draft PEIR should include measures to perpetually protect the targeted habitat values from direct and indirect negative impacts. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

7. In order to avoid impacts to nesting birds, the draft PEIR should require that clearing of vegetation, and when biologically warranted construction, occur outside of the peak avian breeding season which generally runs from February 1 through September 1 (as early as January for some raptors). If project construction is necessary during the bird breeding season, a qualified biologist should conduct a survey for nesting birds, within three days prior to the work in the area, and ensure no nesting birds in the project area would be

impacted by the project. If an active nest is identified, a buffer shall be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer shall be a minimum width of 300 feet (500 feet for raptors), shall be delineated by temporary fencing, and shall remain in effect as long as construction is occurring or until the nest is no longer active. No project construction shall occur within the fenced nest zone until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be impacted by the project.

8. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Studies have shown that these efforts are experimental in nature and largely unsuccessful.

9. Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

We appreciate the opportunity to comment on the referenced NOP. Questions regarding this letter and further coordination on these issues should be directed to Paul Schlitt at (858) 637-5510.

Sincerely,

Edmund J. Pert
Regional Manager
South Coast Region

Attachment(s) 2
- Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities
- Sensitivity of Top Priority Rare Natural Communities in Southern California

cc: State Clearinghouse, Sacramento
David Zoutendyk, U.S. Fish and Wildlife Service, Carlsbad
Paul Schlitt, San Diego

Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities

State of California
THE RESOURCES AGENCY
Department of Fish and Game
December 9, 1983
Revised May 8, 2000

The following recommendations are intended to help those who prepare and review environmental documents determine **when** a botanical survey is needed, **who** should be considered qualified to conduct such surveys, **how** field surveys should be conducted, and **what** information should be contained in the survey report. The Department may recommend that lead agencies not accept the results of surveys that are not conducted according to these guidelines.

1. Botanical surveys are conducted in order to determine the environmental effects of proposed projects on all rare, threatened, and endangered plants and plant communities. Rare, threatened, and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, can be shown to be rare, threatened, and/or endangered under the following definitions:

A species, subspecies, or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, or disease. A plant is "threatened" when it is likely to become endangered in the foreseeable future in the absence of protection measures. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.

Rare natural communities are those communities that are of highly limited distribution. These communities may or may not contain rare, threatened, or endangered species. The most current version of the California Natural Diversity Database's List of California Terrestrial Natural Communities may be used as a guide to the names and status of communities.

2. It is appropriate to conduct a botanical field survey to determine if, or to the extent that, rare, threatened, or endangered plants will be affected by a proposed project when:

a. Natural vegetation occurs on the site, it is unknown if rare, threatened, or endangered plants or habitats occur on the site, and the project has the potential for direct or indirect effects on vegetation; or
b. Rare plants have historically been identified on the project site, but adequate information for impact assessment is lacking.

3. Botanical consultants should possess the following qualifications:

a. Experience conducting floristic field surveys;
b. Knowledge of plant taxonomy and plant community ecology;
c. Familiarity with the plants of the area, including rare, threatened, and endangered species;
d. Familiarity with the appropriate state and federal statutes related to plants and plant collecting; and,
e. Experience with analyzing impacts of development on native plant species and communities.

4. Field surveys should be conducted in a manner that will locate any rare, threatened, or endangered species that may be present. Specifically, rare, threatened, or endangered plant surveys should be:

a. Conducted in the field at the proper time of year when rare, threatened, or endangered species are both evident and identifiable. Usually, this is when the plants are flowering.

When rare, threatened, or endangered plants are known to occur in the type(s) of habitat present in the project

area, nearby accessible occurrences of the plants (reference sites) should be observed to determine that the species are identifiable at the time of the survey.

b. Floristic in nature. A floristic survey requires that every plant observed be identified to the extent necessary to determine its rarity and listing status. In addition, a sufficient number of visits spaced throughout the growing season are necessary to accurately determine what plants exist on the site. In order to properly characterize the site and document the completeness of the survey, a complete list of plants observed on the site should be included in every botanical survey report.

c. Conducted in a manner that is consistent with conservation ethics. Collections (voucher specimens) of rare, threatened, or endangered species, or suspected rare, threatened, or endangered species should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable state and federal permit requirements. A collecting permit from the Habitat Conservation Planning Branch of DFG is required for collection of state-listed plant species. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens.

d. Conducted using systematic field techniques in all habitats of the site to ensure a thorough coverage of potential impact areas.

e. Well documented. When a rare, threatened, or endangered plant (or rare plant community) is located, a California Native Species (or Community) Field Survey Form or equivalent written form, accompanied by a copy of the appropriate portion of a 7.5 minute topographic map with the occurrence mapped, should be completed and submitted to the Natural Diversity Database. Locations may be best documented using global positioning systems (GPS) and presented in map and digital forms as these tools become more accessible.

5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations and mitigated negative declarations, Timber Harvesting Plans (THPs), EIR's, and EIS's, and should contain the following information:

a. Project description, including a detailed map of the project location and study area.
b. A written description of biological setting referencing the community nomenclature used and a vegetation map.
c. Detailed description of survey methodology.
d. Dates of field surveys and total person-hours spent on field surveys.
e. Results of field survey including detailed maps and specific location data for each plant population found. Investigators are encouraged to provide GPS data and maps documenting population boundaries.
f. An assessment of potential impacts. This should include a map showing the distribution of plants in relation to proposed activities.
g. Discussion of the significance of rare, threatened, or endangered plant populations in the project area considering nearby populations and total species distribution.
h. Recommended measures to avoid impacts.
i. A list of all plants observed on the project area. Plants should be identified to the taxonomic level necessary to determine whether or not they are rare, threatened or endangered.
j. Description of reference site(s) visited and phenological development of rare, threatened, or endangered plant(s).
k. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.
l. Name of field investigator(s).
m. References cited, persons contacted, herbaria visited, and the location of voucher specimens.

Attachment 2

Sensitivity of Top Priority Rare Natural Communities in Southern California

Sensitivity rankings are determined by the Department of Fish and Game, California Natural Diversity Data Base and based on either number of known occurrences (locations) and/or amount of habitat remaining (acreage). The three rankings used for these top priority rare natural communities are as follows:

S1.# Fewer than 6 known locations and/or on fewer than 2,000 acres of habitat remaining.

S2.# Occurs in 6-20 known locations and/or 2,000-10,000 acres of habitat remaining.

S3.# Occurs in 21-100-known locations and/or 10,000-50,000 acres of habitat remaining.

The number to the right of the decimal point after the ranking refers to the degree of threat posed to that natural community regardless of the ranking. For example:

S1.1 = very threatened
S2.2 = threatened
S3.3 = no current threats known

Sensitivity Rankings (February 1992)

Rank	Community Name
S1.1	Mojave Riparian Forest
	Sonoran Cottonwood Willow Riparian
	Mesquite Bosque
	Elephant Tree Woodland
	Crucifixion Thorn Woodland
	Allthorn Woodland
	Arizonan Woodland
	Southern California Walnut Forest
	Mainland Cherry Forest
	Southern Bishop Pine Forest
	Torrey Pine Forest
	Desert Mountain White Fir Forest
	Southern Dune Scrub
	Southern Coastal Bluff Scrub
	Maritime Succulent Scrub
	Riversidean Alluvial Fan Sage Scrub
	Southern Maritime Chaparral
	Valley Needlegrass Grassland
	Great Basin Grassland
	Mojave Desert Grassland
	Pebble Plains
	Southern Sedge Bog
	Cismontane Alkali Marsh
S1.2	Southern Foredunes
	Mono Pumice Flat
	Southern Interior Basalt Flow Vernal Pool

S2.1	Venturan Coastal Sage Scrub Diegan Coastal Sage Scrub Riversidean Upland Coastal Sage Scrub Riversidean Desert Sage Scrub Sagebrush Steppe Desert Sink Scrub Mafic Southern Mixed Chaparral San Diego Mesa Hardpan Vernal Pool San Diego Mesa Claypan Vernal Pool Alkali Meadow Southern Coastal Salt Marsh Coastal Brackish Marsh Transmontane Alkali Marsh Coastal and Valley Freshwater Marsh Southern Arroyo Willow Riparian Forest Southern Willow Scrub Modoc-Great Basin Cottonwood Willow Riparian Modoc-Great Basin Riparian Scrub Mojave Desert Wash Scrub Engelmann Oak Woodland Open Engelmann Oak Woodland Closed Engelmann Oak Woodland Island Oak Woodland California Walnut Woodland Island Ironwood Forest Island Cherry Forest Southern Interior Cypress Forest Bigcone Spruce-Canyon Oak Forest
S2.2	Active Coastal Dunes Active Desert Dunes Stabilized and Partially Stabilized Desert Dunes Stabilized and Partially Stabilized Desert Sandfield Mojave Mixed Steppe Transmontane Freshwater Marsh Coulter Pine Forest Southern California Fellfield White Mountains Fellfield
S2.3	Bristlecone Pine Forest Limber Pine Forest

APPENDIX B ENVIRONMENTAL INITIAL STUDY

GARY W. ERBECK
DIRECTOR

County of San Diego

DEPARTMENT OF ENVIRONMENTAL HEALTH
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(619) 338-2222 FAX (619) 338-2088
1-800-253-9933
www.sdcdeh.org

JACK MILLER
ASSISTANT DIRECTOR

January 21, 2009

CEQA Initial Study - Environmental Checklist Form
(Based on the State CEQA Guidelines, Appendix G Rev. 10/04)

1. Title; Project Number(s); Environmental Log Number:

   Vector Habitat Remediation Program

2. Lead agency name and address:
   County of San Diego, Department of Environmental Health
   Vector Control Program
   9325 Hazard Way
   San Diego, CA 92123

3. a. Contact: Kerry McNeill, Program Manager
   b. Phone number: (858) 858-694-2629
   c. E-mail: kerry.mcneill@sdcounty.ca.gov.

4. Project location:
   The project is located within the County of San Diego (**see *Figure 1-1***). The Vector Habitat Remediation Program (VHRP) will review and potentially provide funding to projects located anywhere within the County (excluding military and tribal lands) that will demonstrate the reduction or elimination of mosquito breeding areas and that demonstrate a balance with hydrologic, water quality, aesthetic, and biological resource values. Areas within the County consisting of still, shallow water that persists for more than a few days will provide the setting for future projects that will be implemented under the VHRP.

5. Project Applicant name and address:
   County of San Diego, Department of Environmental Health
   9325 Hazard Way
   San Diego, CA 92123

6. General Plan Designation Not applicable, as specific projects are not proposed at this time.

Community Plan:	N/A
Land Use Designation:	N/A
Density:	N/A du/N/A acre(s)

7. Zoning

Use Regulation:	N/A
Minimum Lot Size:	N/A
Special Area Regulation:	N/A

8. Description of project:

Mosquito-borne disease such as the West Nile virus poses a growing public health threat in San Diego County. In order to reduce disease transmission, the project proposes to control mosquito populations by implementing measures that will reduce mosquito breeding habitat throughout the County. The proposed project is the implementation of the VHRP which is intended to fund projects that will reduce and/or eliminate mosquito breeding grounds in established wetlands, flood control facilities, effluent treatment ponds, and stormwater treatment facilities. The VHRP will review and potentially provide funding to projects that reduce and/or eliminate mosquito-breeding habitat taking into consideration the biological and hydrological values of wetlands and the need to protect human populations and animals from mosquito-borne diseases. Future projects throughout the County of San Diego will be eligible to receive funding under the VHRP if the project 1) proposes to implement methods that reduce or eliminate mosquito breeding areas, and 2) demonstrates compliance with the VHRP.

The VHRP has developed three key concepts to reduce mosquito breeding habitat within the County. These key concepts consist of: wetland and water quality treatment design, water management, and vegetation manipulation (see Table 1). For each of the three key concepts, the program offers more specific information in the form of concepts to consider when proposing wetland and water quality treatment design, water management and/or vegetation manipulation programs. The program also offers guidelines regarding appropriate methods to reduce breeding habitat within wetlands, treatment effluent ponds, and stormwater facilities.

Table 1: Key Concepts that Reduce Mosquito Breeding Habitat

Concepts	Guidelines
Wetland and Water Quality Treatment Design	
General Concepts	Incorporate steep edges to minimize vegetation along wetland margins
	Maximize deep, open water areas to provide predator habitat, water circulation, and wave action
	Ensure surface connection and multiple flow paths among wetland cells and pools
	Minimize still, isolated, shallow areas
	Facilitate access for surveillance, maintenance, and mosquito control activities
Created Wetlands and Effluent Treatment Ponds	Design to achieve a hydrological regime unfavorable for mosquito production (e.g., avoid isolated pools or repeated drying/inundation cycles during periods of peak mosquito activity; incorporate water conveyance to facilitate relatively rapid changes in water level)
	Include permanent, open water pools with a depth of 1.5 meter or more
	Ensure connections (multiple flow paths) between wetland cells and pools
	Incorporate mosquito-eating fish
Stormwater Treatment Facilities	Design to limit water retention time to less than 72 hours
	Where feasible, cap open water structures that hold water longer than 72 hours
	Include trash racks, debris screens, or similar components to prevent mosquito access
	Avoid use of loose riprap or other materials that can create standing water
	Incorporate on-going maintenance
Water Management	
General Concepts	Water delivery systems, drainage systems, levees, and other water control structures should be designed and maintained to minimize mosquito production (e.g., promote rapid flooding and quick drawdown, enhance populations of naturally occurring predators of mosquitoes, etc.)
	Where feasible, limit the presence of standing, shallow water (<30 cm depth) to less than 72 hours
	Provide circulation and wave action
Created Wetlands and Effluent Treatment Ponds	Adequately size and maintain water control structures and pumps
	Use sprayers, spinning wheels or other systems to promote agitation and wave action
Stormwater Treatment Facilities	Ensure water retention time is less than 72 hours
	Ensure active maintenance to avoid clogging of drains, pipes, and outfalls
Vegetation Manipulation	
General Concepts	When possible, limit vegetation to narrow strips (m wide)
	Remove dense emergent vegetation that limits wave action and predator access
	Provide access for mosquito surveillance and control activities
Created Wetlands and Effluent Treatment Ponds	Remove vegetation as part of ongoing maintenance
Stormwater Treatment Facilities	Remove vegetation as part of ongoing maintenance

9. Surrounding land uses and setting (Briefly describe the project's surroundings)

The VHRP will review and potentially provide funding to projects located throughout San Diego County. Therefore, surrounding land uses consist of the counties of Orange, Riverside and Imperial, the United States/Mexico Border, and the Pacific Ocean. Detailed information regarding surrounding land uses will be provided on a project-by-project basis as projects eligible for program funding are proposed.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

The VHRP will be facilitated by the issuance of a Regional General Permit by ACOE; and, the following permits may also be required for projects funded by the program.

Permit Type/Action	**Agency**
Landscape Plans	County of San Diego
Minor Grading Permit	County of San Diego
401 Permit - Water Quality Certification	RWQCB
404 Permit – Dredge and Fill	ACOE
1603 – Streambed Alteration Agreement	CDFG
Section 7 - Consultation or Section 10a Permit – Incidental Take	USFWS
National Pollutant Discharge Elimination System (NPDES) Permit	RWQCB
General Construction Storm water Permit	RWQCB
Regional General Permit	ACOE
Local jurisdictional permits	All local jurisdictions

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The environmental factors checked below will be potentially affected by this project and involve at least one impact that is a "Potentially Significant Impact" or a "Less Than Significant With Mitigation Incorporated," as indicated by the checklist on the following pages.

☑ Aesthetics
☑ Biological Resources
☐ Hazards & Haz. Materials
☐ Mineral Resources
☐ Public Services
☐ Utilities & Service Systems
☐ Agricultural Resources
☑ Cultural Resources
☑ Hydrology & Water Quality
☑ Noise
☐ Recreation
☑ Air Quality
☑ Geology & Soils
☐ Land Use & Planning
☐ Population & Housing
☐ Transportation/Traffic
☑ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial evaluation:

☐ On the basis of this Initial Study, the Department of Public Works finds that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ On the basis of this Initial Study, the Department of Public Works finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☑ On the basis of this Initial Study, the Department of Public Works finds that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Signature	January 21, 2009 Date
Kerry McNeill Printed Name	Vector Control Program Manager Title

INSTRUCTIONS ON EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, Less Than Significant With Mitigation Incorporated, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance

I. AESTHETICS – Would the project:

a) Have a substantial adverse effect on a scenic vista?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

A vista is a view from a particular location or composite views along a roadway or trail. Scenic vistas often refer to views of natural lands, but may also be compositions of natural and developed areas, or even entirely of developed and unnatural areas, such as a scenic vista of a rural town and surrounding agricultural lands. What is scenic to one person may not be scenic to another, so the assessment of what constitutes a scenic vista must consider the perceptions of a variety of viewer groups.

The items that can be seen within a vista are visual resources. Adverse impacts to individual visual resources or the addition of structures or developed areas may or may not adversely affect the vista. Determining the level of impact to a scenic vista requires analyzing the changes to the vista as a whole and also to individual visual resources.

Less than Significant Impact: The proposed project is the implementation of the VHRP. The VHRP will review and potentially provide funding to projects located throughout San Diego County that will reduce or eliminate mosquito breeding areas while at the same time demonstrate a balance with the hydrologic, water quality, aesthetic, and biological resource values. Through wetland and water quality treatment design, water management, and vegetation manipulation, the actions of future projects eligible for VHRP funds could potentially alter the existing visual environment at specific project locations. The location of future projects is unknown at this time; however, future projects are not expected to significantly impact scenic vistas. For a future project to be eligible for VHRP funds it will have to comply with the program. Most of the key concepts to reduce mosquito breeding areas address horizontal systems (e.g., covers for open water structures that hold water longer than 72 hours) or vegetation removal. Projects funded by the VHRP will not construct vertical systems or structures (i.e., solid structures) that will result in impacts to scenic vistas. The vertical systems that may be implemented through the VHRP include water sprayers and spinning wheels to agitate surface water to reduce mosquito breeding habitat. These vertical systems would not encompass a large surface area to cause a significant impact to a scenic vista. Therefore, impacts will be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

State scenic highways refer to those highways that are officially designated by the California Department of Transportation (Caltrans) as scenic (Caltrans - California Scenic Highway Program). Generally, the area defined within a State scenic highway is the land adjacent to and visible from the vehicular right-of-way. The dimension of a scenic highway is usually identified using a motorist's line of vision, but a reasonable boundary is selected when the view extends to the distant horizon. The scenic highway corridor extends to the visual limits of the landscape abutting the scenic highway.

Less than Significant Impact: Although the location of future projects eligible for VHRP funds is unknown at this time, projects are not expected to result in significant impacts to scenic resources within a state scenic highway. While it is possible that a future project could be proposed near one of the County's four officially designated state scenic highways (Highway 78 east through Anza Borrego, State Route 163, State Route 75, and State Route 125) projects funded by the VHRP are intended to reduce or eliminate mosquito breeding habitat and are not expected to result in damage to trees, rock outcroppings, or historic buildings. Future VHRP eligible projects will focus on wetlands, treatment ponds and stormwater facilities. Although vegetation manipulation is promoted by the VHRP as a key concept to reduce mosquito breeding habitat, projects will not likely require the removal or relocation of trees. Similarly, future projects will not require the removal or relocation of significant rock outcroppings and historic buildings within a state scenic highway. Therefore, impacts to scenic resources within a state scenic highway system will be less than significant.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: Implementation of the VHRP will provide funds to program-eligible projects that will reduce or eliminate mosquito breeding habitat utilizing methods which consider the important environmental value of wetland areas. Future projects could potentially include vegetation removal as a part of ongoing maintenance activities at a project location. Ongoing maintenance activities such as vegetation removal and other activities which relate to vegetation manipulation as a method to reduce/eliminate mosquito breeding habitat could degrade the existing visual character or quality of a site and its surroundings by altering the natural state of the site. Therefore, future projects funded by the VHRP could result in potentially significant impacts. The program's potential to degrade the existing visual quality of a site will be further addressed in the Program Environmental Impact Report (PEIR).

d) Create a new source of substantial light or glare, which will adversely affect day or nighttime views in the area?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: Future projects funded by the VHRP are intended to reduce/eliminate mosquito breeding habitat and will not require the use of outdoor lighting or building materials with highly reflective properties such as highly reflective glass or high-gloss surface colors. Therefore, implementation of the VHRP and development of future projects funded by the VHRP will not create any new sources of light pollution that could contribute to skyglow, light trespass or glare and adversely affect day or nighttime views in area. In addition, no nighttime construction or maintenance would be conducted for the projects implemented under the VHRP; therefore, no impacts will result.

II. AGRICULTURAL RESOURCES – Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance (Important Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, or other agricultural resources, to non-agricultural use?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact. Future projects reviewed and funded by the VHRP will focus on designing and maintaining wetlands, effluent treatment ponds and stormwater facilities to reduce and/or eliminate mosquito breeding habitat. These projects will be located throughout San Diego County, potentially on farmlands as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. However, at this time, the location of future projects is unknown. Components of future projects (wetlands and water quality treatment design, water management and vegetation manipulation) will be installed at wetland areas, effluent treatment ponds and stormwater facilities. Projects funded by the VHRP will not result in any changes to land use and will not result in the conversion of agricultural lands to a non-agricultural use. Therefore, no impacts will result.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: Future projects reviewed and funded by the VHRP will be implemented to reduce/eliminate mosquito breeding areas. Future projects will not install new uses at project sites which will conflict with the existing zoning for that site. Projects funded by the VHRP will not result in conflicts with existing zoning on any lands including lands designated as agriculture. Similarly, future projects will not conflict with a Williamson Act contract. Therefore, no impact will occur.

c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Important Farmland or other agricultural resources, to non-agricultural use?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: Once implemented the VHRP will provide funding to projects located throughout the County. Projects will occur within wetlands, effluent treatment ponds, or stormwater facilities and will not result in any land use conversions. Future projects funded by the VHRP are not expected to introduce a change to the existing environment which could ultimately result in the conversion of land use. Therefore, no Important Farmland, or other agricultural resources will be converted to a non-agricultural use. Therefore, no impacts would result.

III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP)?

- ☐ Potentially Significant Impact
- ☑ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:
.
Less Than Significant Impact: The proposed project is the implementation of the VHRP which will review and potentially provide funding to projects that reduce or eliminate mosquito breeding habitat. Construction of future projects will likely result in the temporary emission of ozone precursors that were not considered in the RAQS. However, emissions generated by project construction are expected to be small and will be temporary in nature. As such, future projects funded by the VHRP are not expected to conflict with either the RAQS or the SIP. In addition, the operational emissions from future projects resulting from ongoing maintenance and emissions from maintenance vehicles are expected to be below the screening levels, and will not be expected to violate ambient air quality thresholds. Therefore, impacts will be less than significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

In general, air quality impacts from land use projects are the result of emissions from motor vehicles, and from short-term temporary construction activities associated with such projects. The San Diego County Land Use Environment Group (LUEG) has established guidelines for determining significance which incorporate the Air Pollution Control District's (SDAPCD) established screening-level criteria for all new source review (NSR) in APCD Rule 20.2. These screening-level criteria can be used as numeric methods to demonstrate that a project's total emissions (e.g., stationary and fugitive emissions, as well as emissions from mobile sources) will not result in a significant impact to air quality. Since APCD does not have screening-level criteria for emissions of volatile organic compounds (VOCs), the use of the screening level for reactive organic compounds (ROC) from the South Coast Air Quality Management District (SCAQMD) for the Coachella Valley (which are more appropriate for the San Diego Air Basin) are used.

Less Than Significant Impact: Future projects implemented under the VHRP could require light grading in order to construct steep edges to minimize vegetation along wetland areas. All grading operations associated with the construction of future projects will be subject to the local jurisdictions grading ordinances, which require the implementation of dust control measures. Emissions from future construction and maintenance activities will be minimal, temporary and sporadic in nature, and localized, resulting in pollutant emissions below the screening-level criteria established by the LUEG guidelines for determining significance. According to the Bay Area Air Quality Management District CEQA Guidelines for Assessing the Air Quality Impacts of Projects and Plans, projects that generate less than 2,000 average daily trips (ADT) are below the screening-level criteria established by the guidelines for criteria pollutants. Traffic

generated by the project will primarily be construction traffic with the occasional maintenance vehicle(s) accessing project areas during the operational phase. Projects funded by the VHRP are not expected to generate 2,000 ADT during any phase (construction or operation). As such, the project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

San Diego County is presently in non-attainment for the 1-hour concentrations under the California Ambient Air Quality Standard (CAAQS) for Ozone (O_3). San Diego County is also presently in non-attainment for the annual geometric mean and for the 24-hour concentrations of Particulate Matter less than or equal to 10 microns (PM_{10}) under the CAAQS. O_3 is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_x) react in the presence of sunlight. VOC sources include any source that burns fuels (e.g., gasoline, natural gas, wood, oil); solvents; petroleum processing and storage; and pesticides. Sources of PM_{10} in both urban and rural areas include: motor vehicles, wood burning stoves and fireplaces, dust from construction, landfills, agriculture, wildfires, brush/waste burning, and industrial sources of windblown dust from open lands.

Potentially Significant Impact: The proposed project is the implementation of the VHRP which will potentially provide funding to program-eligible projects which reduce or eliminate mosquito breeding habitat. Potential air quality emissions associated with the construction of future projects include emissions of PM_{10}, and NO_x from construction/grading activities, and also as the result of minor increase in traffic due to ongoing maintenance needs (which will be sporadic in nature). However, grading operations associated with the construction of future projects will be subject to the grading ordinance of the applicable jurisdiction in which each project is located within, and will require the implementation of dust control measures. Emissions from the construction phase will be minimal, localized and temporary resulting in PM_{10} emissions expected to be below the screening-level criteria established by the LUEG guidelines for determining significance. The vehicle trips generated from the project during the operational phase will be minimal and solely attributed to ongoing maintenance activities at the future project sites. According to the Bay Area Air Quality Management District CEQA Guidelines for Assessing the Air Quality Impacts of Projects and Plans, projects that generate less than 2,000 ADT are below the screening-level criteria established by the LUEG guidelines for determining significance. Projects funded by the VHRP are not expected to generate 2,000 ADT during construction or operational

phases. Therefore, project related impacts will be less than significant. However, a discussion of how air quality impacts could have a cumulative impact on global climate change will be provided in the PEIR.

d) Expose sensitive receptors to substantial pollutant concentrations?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Air quality regulators typically define sensitive receptors as schools (Preschool-12th Grade), hospitals, resident care facilities, or day-care centers, or other facilities that may house individuals with health conditions that will be adversely impacted by changes in air quality. The County of San Diego also considers residences as sensitive receptors since they are occupied by children and the elderly.

Less Than Significant Impact: Projects eligible for funding under the VHRP could occur throughout the County and within the vicinity of sensitive receptors. However, based on the temporary nature of construction and the sporadic nature of ongoing maintenance activities, future projects funded by the VHRP will not result in the exposure of sensitive receptors to significant pollutant concentrations and will not place sensitive receptors near carbon monoxide hotspots. In addition, the project will not contribute to a cumulatively considerable exposure of sensitive receptors to substantial pollutant concentrations because the future projects are expected to have emissions below the screening-level criteria established by the LUEG guidelines for determining significance.

e) Create objectionable odors affecting a substantial number of people?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Future projects funded by the VHRP could produce objectionable odors, which will result from construction equipment and vehicle emissions. However, given the temporary nature of construction these objectionable odors are not expected to significantly impact sensitive receptors. As such, impacts as a result of odors generated by future projects funded by the VHRP are expected to be less than significant. Moreover, the affects of objectionable odors are localized to the immediate surrounding area and will not contribute to a cumulatively considerable odor. Therefore, impacts will be less than significant.

IV. BIOLOGICAL RESOURCES – Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: The proposed VHRP will review and potentially fund projects that reduce or eliminate mosquito breeding habitat through wetland and water quality treatment design, water management, and vegetation manipulation. Future projects could have an adverse effect on sensitive species through the manipulation of natural systems and habitat modification. Therefore, future projects could result in potentially significant impacts to sensitive species. The potential impacts to candidate, sensitive, or special status species from the implementation of the VHRP will be further addressed in the PEIR.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: As part of the VHRP, the County has identified three key concepts to consider when proposing a future project which will be eligible for funding to reduce or eliminate mosquito breeding areas. Key concepts include wetland and water quality treatment design, water management, and vegetation manipulation. Implementation of these key concepts during project construction could potentially result in adverse effects to riparian habitat or other sensitive natural community through permanent habitat modification. Therefore, the potential for future projects funded by the VHRP to impact riparian habitat and other sensitive natural communities will be further addressed in the PEIR.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: As discussed in IV(a) and IV(b) above, future projects funded by the VHRP could result in adverse effects to wetlands through vegetation manipulation, habitat modification and other activities intended to reduce or eliminate mosquito breeding habitat. Therefore the potential for future projects to adverse effect federally protected wetlands will be further discussed in the PEIR.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: Implementation of the VHRP will provide funding to program-eligible projects focused on reducing or eliminating mosquito breeding habitat. Future projects are not intended to interfere with the movement of any native resident or migratory fish or wildlife species. However riparian habitat modification could result in significant interference with wildlife movement. Therefore, the potential for future projects funded by the VHRP to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites will be further discussed in the PEIR.

e) Conflict with the provisions of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan, other approved local, regional or state habitat conservation plan or any other local policies or ordinances that protect biological resources?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: Implementation of the VHRP will provide a funding source for projects located in the County of San Diego that reduce or eliminate mosquito breeding habitat. Future projects will demonstrate an understanding of the

important environmental values of wetlands, while at the same time promote vector control. Implementation of the VHRP could result in the funding of projects that may conflict with Habitat Conservation Plans, Natural Communities Conservation Plan or other approved local, regional or state habitat conservation plan. This potential conflict with habitat conservation plans will be further discussed in the PEIR.

V. CULTURAL RESOURCES – Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?

- ☐ Potentially Significant Impact
- ☑ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Implementation of the VHRP will not result in the disturbance or alteration to existing historical structures. Future projects may result in ground disturbing activities; however, the activities will occur within wetland areas, effluent treatment ponds, and stormwater facilities. Therefore, impacts to historical resources will not occur.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: Projects located throughout the County of San Diego will be eligible for future funding under the VHRP upon demonstration of compliance with program guidelines and objectives. At this time the location of future projects is unknown; however, it is likely that proposed projects will involve light grading in order to manipulate and minimize vegetation along wetland areas. Light grading and more invasive earthwork could potentially result in a substantial adverse change to on site archeological resources. Therefore, the potential for future VHRP-funded projects to cause a substantial adverse change in the significance of an archeological resource will be further addressed in the PEIR.

c) Directly or indirectly destroy a unique geologic feature?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

San Diego County has a variety of geologic environments and geologic processes which generally occur in other parts of the state, country, and the world. However, some features stand out as being unique in one way or another within the boundaries of the County.

Potentially Significant Impact: See response to V(b). Future projects funded by the VHRP could involve light grading. Although unlikely due to depth of the earthwork, light grading could potentially destroy a unique geologic feature. Therefore, the potential for future projects to directly or indirectly destroy a unique geologic feature will be further discussed in the PEIR.

d) Directly or indirectly destroy a unique paleontological resource or site?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: See response to V(b) and V(c), above. The proposed project is the implementation of the VHRP which will potentially provide funds to program-eligible projects located throughout the County of San Diego. The location of future projects funded by the VHRP is unknown at this time however; it is possible that future projects could directly or indirectly destroy a unique paleontological resource or site through project construction activities. Therefore, the potential for future projects to destroy a unique paleontological resource or site will be further discussed in the PEIR.

e) Disturb any human remains, including those interred outside of formal cemeteries?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: Future projects funded by the VHRP could require light grading which could potentially disturb unearthed human remains. Therefore, the

potential for future projects to disturb human remains will be further discussed in the PEIR.

VI. GEOLOGY AND SOILS – Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: The VHRP will review and potentially provide funding to projects throughout the County which demonstrate the ability to reduce or eliminate mosquito breeding habitat. Since specific projects could be located throughout the County, projects could occur within fault rupture hazard zones. However, future projects funded by the VHRP will focus on designing and maintaining wetlands, effluent treatment ponds and stormwater facilities to ultimately reduce or eliminate mosquito breeding habitat and will not involve the construction of habitable buildings or structures. Therefore, projects implemented under the VHRP will not expose people of structures to the risk of loss, injury or death involving the rupture of a known earthquake fault.

ii. Strong seismic ground shaking?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: Future projects funded by the VHRP will implement measures to reduce or eliminate mosquito breeding areas and will not propose habitable buildings or structures. Therefore, the VHRP will not expose people or structures to the risk of loss, injury or death involving strong seismic ground shaking. No impacts will result.

iii. Seismic-related ground failure, including liquefaction?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Projects funded by the VHRP could potentially be located within a "Potential Liquefaction Area" as identified in the County Guidelines for Determining Significance for Geologic Hazards. If a future project proposes to construct water control structures, a Geotechnical Report will be required in order to determine if that project will be susceptible to settlement and liquefaction. As discussed in response to V(a)(ii) above, future projects will not construct buildings or structures supporting human habitation. Therefore, the VHRP will not expose people or structures to the risk of loss, injury or death involving seismic related ground failure, including liquefaction. Impacts will be less than significant.

iv. Landslides?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: Implementation of the VHRP will result in the funding of future projects that will reduce or eliminate mosquito breeding areas. Mosquitoes breed in areas of still, shallow water. The project will not incorporate the construction of habitable structures or work places that will result in the exposure of people or structures to the risk of loss, injury or death involving landslides. Therefore, no impact will occur.

b) Result in substantial soil erosion or the loss of topsoil?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: Future projects funded by the VHRP could potentially require light grading to minimize vegetation along wetlands margins. Grading could potentially result in soil erosion and/or the loss of topsoil. In order to minimize the potential for soil erosion, projects will implement Best Management Practices (BMPs). The potential for future projects to result in soil erosion and the loss of topsoil will be discussed further in the PEIR.

c) Will the project produce unstable geological conditions that will result in adverse impacts resulting from landslides, lateral spreading, subsidence, liquefaction or collapse?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The construction of future projects funded by the VHRP will potentially result in site disturbance and could potentially require light grading. At this time the construction specifics of future projects are unknown. However, future projects are not expected to propose major earthwork which will produce unstable geologic conditions. Therefore, impacts are expected to be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less than Significant Impact: Although the exact locations of future projects are unknown at this time it is possible that future project sites will be located on expansive soils. If a project were located on expansive soil, any damage due to expansive soils will not likely result in a substantial risk to life and/or property. Projects funded by the VHRP will reduce or eliminate mosquito breeding habitat in the County of San Diego. Water control structures constructed by future projects could be susceptible to soil expansion however damage to these systems are not likely to result in significant risk to life or property. Impacts will be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less than Significant Impact
- ☑ No Impact

Discussion/Explanation:

No Impact: Future projects funded by the VHRP will reduce or eliminate mosquito breeding habitat. Future projects will not propose any septic tanks or alternative wastewater disposal systems since no wastewater will be generated.

VII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials or wastes or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The projects funded under the VHRP could propose the use of hazardous materials such as chemical insecticides, herbicides, and/or larvicides. While the use of such chemicals would not be the focus of a project implemented under the VHRP they could be proposed in support of the alternative approaches that the VHRP promotes. Hence, implementation of the VHRP could result in the routine storage, use, transport, emission, or disposal of hazardous substances into the environment. However, projects that propose the use of chemicals will be required to comply with federal, state and local regulations regarding the storage, use transport, handling, and disposal of such chemicals. Therefore, the impacts will be less than significant.

b) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The location of future projects funded by the VHRP is unknown at this time. It is possible, however that future projects may be located within one-quarter mile of an existing or proposed school. As discussed in VII(a) the project could result in the handling, storage, or transport of hazardous materials such as chemical insecticides, herbicides, and/or larvicides. However, each project that proposes the use of chemicals will be required to comply with the federal, state, and local regulations regarding the handling, storage, transport, and disposal of such chemicals. Therefore, impacts will be less than significant.

c) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, or is otherwise known to have been subject to a release of hazardous substances and, as a result, will it create a significant hazard to the public or the environment?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less than Significant Impact: The location of future projects funded by the VHRP is unknown at this time. The VHRP will potentially provide funding to projects located throughout the County of San Diego and therefore future projects could potentially be located on sites listed on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. If future projects are proposed on hazardous materials sites they will be required to comply with all closure reports and remediation requirements prior to project construction. Therefore, construction at these sites will not be expected to create a significant hazard to the public or environment and impacts will be less than significant.

d) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The VHRP will fund projects that reduce or eliminate mosquito breeding habitat. Program guidelines focus on wetland design, water management and vegetation manipulation. Compliance with program guidelines is not expected to result in a significant safety hazard for people living or working near any proposed project area, including within an airport land use plan or within two miles of a public airport or public use airport. Except for temporary construction activities, the project would not result in the possibility of placing people within two miles of a public airport or public use airport. Construction activities are temporary and short-term in nature; therefore, impacts will be less than significant.

e) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: See response to V(d) above.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

The following sections summarize the project's consistency with applicable emergency response plans or emergency evacuation plans.

i. OPERATIONAL AREA EMERGENCY PLAN AND MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN:

Less Than Significant Impact: The Operational Area Emergency Plan is a comprehensive emergency plan that defines responsibilities, establishes an emergency organization, defines lines of communications, and is designed to be part of the statewide Standardized Emergency Management System. The Operational Area Emergency Plan provides guidance for emergency planning and requires subsequent plans to be established by each jurisdiction that has responsibilities in a disaster situation. The Multi-Jurisdictional Hazard Mitigation Plan includes an overview of the risk assessment process, identifies hazards present in the jurisdiction, hazard profiles, and vulnerability assessments. The plan also identifies goals, objectives and actions for each jurisdiction in the County of San Diego, including all cities and the County unincorporated areas. Future projects funded by the VHRP will not include components that will impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan. The construction of future projects will temporarily increase the amount of traffic on local roadways but is not expected to interfere with an emergency evacuation plan. Projects funded by the VHRP will reduce or eliminate mosquito breeding habitat and will not prevent the goals and objectives from existing emergency plans from being carried out. Impacts will be less than significant.

ii. SAN DIEGO COUNTY NUCLEAR POWER STATION EMERGENCY RESPONSE PLAN

No Impact: The San Diego County Nuclear Power Station Emergency Response Plan will not be interfered with future projects funded by the VHRP due to the location of the plant and the specific requirements of the plan. The emergency plan for the San Onofre Nuclear Generating Station includes an emergency planning zone within a 10-mile radius. The land located within 10 miles of this plant is not within the jurisdiction of the unincorporated County

and as such a project in the unincorporated area is not expected to interfere with any response or evacuation. Impacts will be less than significant.

iii. OIL SPILL CONTINGENCY ELEMENT

Less Than Significant Impact: Although the location of future projects funded by the VHRP is unknown at this time, projects could potentially be located along the coastal zone or coastline. However, future projects funded by the VHRP are intended to reduce or eliminate mosquito breeding habitat and will not prevent the goals and objectives from the Oil Spill Contingency Element from being carried out. Impacts will be less than significant.

iv. EMERGENCY WATER CONTINGENCIES ANNEX AND ENERGY SHORTAGE RESPONSE PLAN

No Impact: The Emergency Water Contingencies Annex and Energy Shortage Response Plan will not be interfered with because the project does not propose altering major water or energy supply infrastructure, such as the California Aqueduct. No impact will result.

v. DAM EVACUATION PLAN

Less Than Significant Impact: Although the location of future projects funded by the VHRP is unknown at this time, projects could potentially be located within a Dam Inundation Areas. However, Dam Evacuation Plans will not be interfered with because future projects funded by the VHRP will not be considered unique institutions that will be difficult to safely evaluate in the event of a dam failure. Unique institutions, as defined by the Office of Emergency Services, include hospitals, schools, skilled nursing facilities, retirement homes, mental health care facilities, care facilities for patients with disabilities, adult and childcare facilities, jails/detention facilities, stadiums, arenas, amphitheaters, or a similar use. Since projects funded by the VHRP will not construct unique institutions in a dam inundation zone, future program-eligible projects will not impair implementation of or physically interfere with the implementation of an emergency response plan.

g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: Future projects will not expose people or structures to a significant risk of loss, injury, or death involving wildland fires because future projects will not construct habitable buildings or structures. No impact will occur.

h) Propose a use, or place residents adjacent to an existing or reasonably foreseeable use that will substantially increase current or future resident's exposure to vectors, including mosquitoes, rats or flies, which are capable of transmitting significant public health diseases or nuisances?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: The West Nile virus, a mosquito-borne disease, has become a growing concern in San Diego County. The goal of the VHRP and projects funded by the VHRP is to reduce or eliminate mosquito breeding habitat, and hence the West Nile virus. Therefore, implementation of the proposed VHRP will result in a beneficial impact in the reduction of an existing significant public health diseases and nuisance.

VIII. HYDROLOGY AND WATER QUALITY – Would the project:

a) Violate any waste discharge requirements?

- ☐ Potentially Significant Impact
- ☑ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The construction of future projects funded by the VHRP could result in waste discharge, which will require pertinent BMPs and conformance with the Municipal Stormwater Permit and other local, state, and federal regulations. Therefore, the potential for future projects to violate waste discharge requirements will be analyzed in the PEIR.

b) Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, could the project result in an increase in any pollutant for which the water body is already impaired?

- ☐ Potentially Significant Impact
- ☑ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The proposed project is the implementation of the VHRP which will review and potentially provide funding to projects throughout the County of San Diego that reduce or eliminate mosquito breeding habitat. The location of

future projects is unknown at this time however projects could be located near an impaired water body, as listed on the Clean Water Act Section 303(d) list and construction of said projects could result in an increase in pollutants for which the water body is already impaired. Therefore, the potential for the construction of future projects to contribute pollutants to an already impaired water body will be further discussed in the PEIR.

c) Could the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: Implementation of the VHRP will provide a funding source for projects located throughout the County of San Diego that reduce or eliminate mosquito breeding habitat. The construction and maintenance of future projects funded by the VHRP could contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses through the discharge of pollutants associated with construction vehicles and equipment. Therefore, the potential for future projects to contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses will be further discussed in the PEIR.

d) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?

- ☐ Potentially Significant Impact
- ☑ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Less than Significant Impact: Future projects funded by the VHRP may involve light grading as a means of minimizing vegetation around wetland areas. Construction activities and the operation of future projects are not expected to result in the depletion of groundwater supplies or interference with groundwater recharge. Projects are not expected to result in increase surface runoff as they will not increase the amount of impervious areas (which will reduce recharge) at project sites. The use of groundwater

is not proposed as a component for future projects funded by the VHRP. Therefore, impacts will be less than significant.

e) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on- or off-site?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: The VHRP will fund projects that will reduce or eliminate mosquito breeding habitat. Project components intended to minimize mosquito breeding areas, such as rapid flooding, quick drawdown, the installation of water conveyance systems, and the incorporation of steep edges along wetland margins could alter the existing drainage pattern of a project site or area which could affect erosion or siltation on- or off-site. Therefore, the potential for future projects to substantially alter the existing drainage pattern of a site will be further discussed in the PEIR.

f) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: See response to VIII(e). The guidelines developed by the VHRP, future projects could involve components that will promote rapid flooding, quick drawdown and other activities intended to minimize mosquito production. Additionally, future projects could incorporate steep edges to minimize vegetation around wetland areas. Components such as these could alter the existing drainage pattern of a project site. Therefore, the potential for future projects to substantially alter the existing drainage pattern of a site will be further discussed in the PEIR.

g) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems?

- ☐ Potentially Significant Impact
- ☑ Less than Significant Impact

☐ Less Than Significant With Mitigation Incorporated ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project does not propose to create or contribute runoff water that will exceed the capacity of existing or planned storm water drainage systems. Therefore, impacts will be less than significant.

h) Provide substantial additional sources of polluted runoff?

☐ Potentially Significant Impact ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Construction of future projects funded by the VHRP could generate pollutants; however, due to the temporary nature of construction and sporadic nature of future maintenance activities, future projects are not expected to provide substantial additional sources of polluted runoff. Additionally, the implementation of BMPs will be required for all future projects that propose grading. Therefore, impacts will be less than significant.

i) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, including County Floodplain Maps?

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☑ No Impact

Discussion/Explanation:

No Impact: The proposed project is the implementation of the VHRP which will provide a funding source for projects throughout the County of San Diego that reduce or eliminate mosquito breeding habitat. The VHRP will not provide funds to projects that include buildings or structures for habitation. Therefore, no impacts will occur.

j) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

☑ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: Projects throughout the County of San Diego which reduce or eliminate mosquito breeding habitat and comply with guidelines developed by the VHRP will potentially be eligible for VHRP funds. While habitable structures will not be proposed by future projects implemented by the VHRP, water control structures could be proposed and could potentially be placed within a 100-year flood hazard area. Therefore, the potential for future projects to impede or redirect flood flows through placement within a 100-year flood hazard area will be further discussed in the PEIR.

k) Expose people or structures to a significant risk of loss, injury or death involving flooding?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: See response to VIII(j) above. Projects throughout the County that meet the guidelines developed by the VHRP will be eligible for program funds. Program-eligible projects will not propose habitable buildings or structures and therefore will not expose people to a significant risk of loss, injury or death. While water delivery systems, drainage systems, levees, and other water control structures may be designed to promote rapid flooding and quick draw down, the flooding and draw down will be contained within the water delivery system. Therefore, the risk of loss injury or death to people or structures will be less than significant.

l) Expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: See response to VIII(k) above. Although future projects funded by the VHRP could be located within dam inundation areas projects will not include the construction of habitable buildings or structures that will be susceptible to flooding as a result of the failure of a dam or levee. Therefore, impacts will be less than significant.

m) Inundation by seiche, tsunami, or mudflow?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

i. SEICHE

No Impact: Although the locations of future projects funded by the VHRP are unknown at this time, projects could potentially be located along the shore of a lake or a reservoir. Therefore, the effects of seiche on future projects funded by the VHRP could result; however, the project will not result in the construction of habitable structures that will place people at risk or harm if such an event were to occur. Therefore, no impacts will occur.

ii. TSUNAMI

No Impact: Although the locations of future projects funded by the VHRP are unknown at this time projects could potentially be located within a mile of the coast. The project will not result in the construction of habitable structures that will place people at risk or harm if such an event were to occur. Therefore, no impacts will occur.

iii. MUDFLOW

No Impact: Although the locations of future projects funded by the VHRP are unknown at this time projects could potentially be located within a landslide susceptibility zone. The project will not result in the construction of habitable structures that will place people at risk or harm if such an event were to occur. Therefore, no impacts will occur.

IX. LAND USE AND PLANNING – Would the project:

a) Physically divide an established community?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: Future projects funded by the VHRP will not propose the introduction of new use land use or implement infrastructure such major roadways or water supply systems, or utilities to the area. Therefore, future projects will not significantly divide an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The proposed project is the implementation of the VHRP which will provide a funding source for projects throughout the County of San Diego which reduce or eliminate mosquito breeding habitat in compliance with guidelines developed by the VHRP. Future projects will be required to comply with all relevant land use plans, policies, or regulations of an agency with jurisdiction over the project. It is not expected that eligible projects will require any type of land use amendments, zone changes or similar planning decisions. Future projects may require use permits which will require compliance with local land use policies and plans. Therefore, no impacts will be less than significant.

X. MINERAL RESOURCES – Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Implementation of the VHRP will provide a funding source for projects throughout the County of San Diego that reduce or eliminate mosquito breeding habitat according to the guidelines developed by the VHRP. Although the location of these projects is unknown at this time projects could potentially be located on lands designated MRZ-2 by the California Department of Conservation Division of Mines and Geology. MRZ-2 is defined as an area where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presents exist. Projects could potentially involve earthwork which could result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state. However, future projects implemented under the VHRP will not result in the redesignation of existing land uses or zoning regulations; and would not preclude future mining of the individual project sites. Therefore, impacts will be less than significant.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The VHRP will fund projects that reduce or eliminate mosquito breeding habitat which demonstrate compliance with VHRP guidelines. Although the locations of future projects funded by the VHRP are unknown at this time, projects could potentially be located on lands designated MRZ-2 by the California Department of Conservation Division of Mines and Geology. Projects could potentially involve earthwork which could result in the loss of availability of a known mineral resource that will be locally important. However, future projects implemented under the VHRP will not result in the redesignation of existing land uses or zoning regulations; and would not preclude future mining of the individual project sites. Therefore, impacts will be less than significant.

XI. NOISE – Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

- ☑ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: The construction and maintenance of future projects funded by the VHRP may generate short-term noise. Future projects will be required to comply with limits of constructions as defined by the applicable noise ordinance and/or General Plan Noise Element of the given jurisdiction in which the project is located. Short-term construction noise may expose people to potentially significant noise levels that exceed the allowable limits of the applicable noise ordinance and/or General Plan Noise Element, depending on the distance of construction activities of the future projects to sensitive receptors. Therefore, noise impacts will be further discussed in the PEIR.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: Future projects funded by the VHRP will not propose any of the following land uses that can be impacted by groundborne vibration or groundborne noise levels.

1. Buildings where low ambient vibration is essential for interior operation, including research and manufacturing facilities with special vibration constraints.
2. Residences and buildings where people normally sleep including hotels, hospitals, residences and where low ambient vibration is preferred.
3. Civic and institutional land uses including schools, churches, libraries, other institutions, and quiet office where low ambient vibration is preferred.
4. Concert halls for symphonies or other special use facilities where low ambient vibration is preferred.

Also, future projects will not propose any major, new or expanded infrastructure such as mass transit, highways or major roadways or intensive extractive industry that could generate excessive groundborne vibration or groundborne noise levels on-site or in the surrounding area.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

- ☐ Potentially Significant Impact
- ☑ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The proposed project is the implementation of the VHRP which will review and potentially provide funding to projects throughout the County of San Diego that demonstrate the ability to reduce or eliminate mosquito breeding habitat. Future projects funded by the VHRP will not construct manned facilities. Future projects would implement construction and maintenance activities associated with reducing mosquito breeding areas. These activities are not expected to result in permanent increases to ambient noise levels. Therefore, impacts will be less than significant.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: See response to XI(a) and (c) above. Future projects funded by the VHRP could potentially install equipment that will generate periodic increases in ambient noise levels in the vicinity of a project site; therefore, the potential noise impacts will be further addressed in the PEIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

- ☐ Potentially Significant Impact
- ☑ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The project does not propose to construct residential or other habitable or commercial structures. The proposed project will implement the VHRP which will provide a funding source for projects located throughout the County of San Diego that reduce or eliminate mosquito breeding habitat in accordance with the guidelines developed by the VHRP. Although the locations of future projects funded by the VHRP are unknown at this time future projects could potentially be located within an airport land use plan or within 2 miles of a public airport or public use airport. The project could expose people working in the project area to excessive airport related noise levels during the construction and/or maintenance phases of future projects implemented under the VHRP. However, based on the temporary nature of construction and the sporadic nature of ongoing maintenance activities, impacts will be less than significant.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

- ☐ Potentially Significant Impact
- ☑ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: See response to XI(e) above. Although the locations of future projects funded by the VHRP are unknown at this time, projects located

throughout the County of San Diego will potentially be eligible for program funds. Projects could potentially be located within the vicinity of a private airstrip. The project could expose people working in the project area to excessive airport related noise levels during the construction and/or maintenance phases of future projects implemented under the VHRP. However, based on the temporary nature of construction and the sporadic nature of ongoing maintenance activities, impacts will be less than significant.

XII. POPULATION AND HOUSING – Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: Future projects funded by the VHRP will not induce substantial population growth in the project area because future projects will not propose any physical or regulatory change that will remove a restriction to or encourage population growth in an area including, but limited to the following: new or extended infrastructure or public facilities; new commercial or industrial facilities; large-scale residential development; accelerated conversion of homes to commercial or multi-family use; or regulatory changes including General Plan amendments, specific plan amendments, zone reclassifications, sewer or water annexations; or LAFCO annexation actions. Therefore, no impacts will occur.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

- ☐ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ No Impact

Discussion/Explanation:

No Impact: The proposed project is the implementation of the VHRP which will review and potentially provide funding to projects throughout the County of San Diego that demonstrate the ability to reduce or eliminate mosquito breeding habitat according to the guidelines developed by the VHRP. Future projects funded by the VHRP will not displace any existing housing. Therefore, no impact will occur.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☑ No Impact

Discussion/Explanation:

No Impact: See response to XII(b) above. Future projects funded by the VHRP will not displace a substantial number of people. No impact will occur.

XIII. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?
ii. Police protection?
iii. Schools?
iv. Parks?
v. Other public facilities?

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☑ No Impact

Discussion/Explanation:

No Impact: Future projects funded by the VHRP will not include residential components. Therefore, future projects will not result in the need for the provision of additional governmental facilities. Therefore, no impact will occur.

XIV. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☑ No Impact

Discussion/Explanation:

No Impact: Future projects funded by the VHRP will not propose any residential use, included but not limited to a residential subdivision, mobilehome park, or construction for a single-family residence that may increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. Since no residential uses will be constructed by projects funded by the VHRP, future projects will not result in the increase in use of existing neighborhood and regional parks. Therefore, no impacts will occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less than Significant Impact
- ☑ No Impact

Discussion/Explanation:

No Impact: Future projects funded by the VHRP will not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, no impact will occur.

XV. TRANSPORTATION/TRAFFIC – Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Future projects funded by the VHRP will generate minimal ADT during the construction phase and for ongoing maintenance of project sites. Due to the temporary nature of construction, construction traffic is not expected to be significant or substantial in relation to the existing traffic load and capacity of the street system. Traffic attributed to maintenance vehicles will be sporadic and will not be considered substantial in relation to the existing traffic load. Therefore, impacts will be less than significant.

b) Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency and/or as identified by the County of San Diego Transportation Impact Fee Program for designated roads or highways?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less than Significant Impact: Future projects funded by the VHRP will generate temporary and minor increases in ADT along project area roadways during construction. Traffic generated by construction is expected to be less than significant due to the temporary nature of construction and is not expected to result in degradation to Level of Service (LOS) on project area roadways. Traffic attributed to maintenance activities will be sporadic. Therefore, future projects are not expected to have significant direct project-level impacts on the LOS standards established by the County Congestion Management Agency for designated roads or highways.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The main compatibility concerns for the protection of airport airspace are related to airspace obstructions (building height, antennas, etc.) and hazards to flight (wildlife attractants, distracting lighting or glare, etc.). Although the locations of future projects potentially funded by the VHRP are unknown at this time, projects could potentially be located within an Airport Influence Area or within 2 miles of a public airport. If located within an Airport Influence Area future projects will be required to comply with the allowable land uses identified for the safety zone within the applicable Airport Land Use plan. Future projects will generate temporary increase in traffic during the construction phase however these increases will be temporary and are expected to be minor. Additionally, future projects will not propose structures which will contribute to or directly result in the obstruction of airspace. Therefore, future projects funded by the VHRP will not have a significant impact on air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

☐ Potentially Significant Impact
☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☑ No Impact

Discussion/Explanation:

No Impact: Future projects funded by the VHRP will not alter traffic patterns, roadway design, place incompatible uses (e.g., farm equipment) on existing roadways, or create or place curves, slopes or walls which impede adequate site distance on a road. No impact will result.

e) Result in inadequate emergency access?

☐ Potentially Significant Impact
☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: The proposed project will implement the VHRP which will provide a funding source for future projects throughout the County of San Diego that reduce or eliminate mosquito habitat. No habitable structures or other buildings will be constructed from implementation of the VHRP. Future projects implemented under the VHRP will be required to provide a traffic control plan to emergency service providers. The temporary short-term construction/maintenance related traffic will result in a less than significant impact to emergency access.

f) Result in inadequate parking capacity?

☐ Potentially Significant Impact
☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☑ No Impact

Discussion/Explanation:

No Impact: No on-site or off-site parking is required or proposed. The proposed project is the implementation of the VHRP. As part of maintenance activities for future projects funded by the VHRP vegetation removal is recommended in order to provide access for ongoing mosquito surveillance and control activities. Access to project areas will need to be maintained to ensure that future projects successfully reduce or eliminate mosquito breeding habitat. Thus, ongoing maintenance will provide adequate access to project locations and additional parking is not required.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

☐ Potentially Significant Impact
☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☑ No Impact

Discussion/Explanation:

No Impact: The proposed project is the implementation of the VHRP which will potentially provide a funding source for projects throughout the County of San Diego that demonstrate an ability to reduce or eliminate mosquito breeding habitat through compliance with guidelines developed by the VHRP. The implementation of the VHRP and construction of future projects funded by the VHRP will not result in any construction or new road design features, and therefore, will not conflict with policies regarding alternative transportation.

XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

☐ Potentially Significant Impact
☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☑ No Impact

Discussion/Explanation:

No Impact: The project does not involve any uses that will discharge any wastewater to sanitary sewer or on-site wastewater systems (septic). Therefore, the project will not exceed any wastewater treatment requirements.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

☐ Potentially Significant Impact
☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☑ No Impact

Discussion/Explanation:

No Impact: Future projects will not propose uses that will require the construction of new water or wastewater treatment facilities or expansion of existing facilities in order to treat product generated by the proposed future projects. Therefore, future projects will not require any construction of new or expanded facilities, which could cause significant environmental effects.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Future projects funded by the VHRP could potentially redesign existing stormwater treatment facilities to reduce mosquito breeding grounds. Future projects in and of themselves will not require the construction of additional stormwater facilities or the expansion of existing stormwater facilities. Therefore, future projects funded by the VHRP will not require the construction of new or expanded facilities, which could cause significant environmental effects. Potential impacts associated with the redesign of existing stormwater treatment facilities are anticipated to be less than significant.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less than Significant Impact: Future projects funded by the VHRP could potentially require water service from a water district in order to have an adequate supply for water delivery and/or drainage systems that will be designated and maintained to minimize mosquito production (e.g., the use of water sprayers or spinning wheels to agitate surface water). Depending on the location, future projects will be required to coordinate with the applicable water district to ensure that adequate supplies exist for the proposed project. Future projects are not expected to require excessive supplies of water. Therefore, impacts will be less than significant.

e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less than Significant Impact
- ☑ No Impact

Discussion/Explanation:

No Impact: Implementation of the proposed project will provide a funding source for projects located in the County of San Diego that reduce or eliminate mosquito breeding habitat. Future projects will not construct any habitable buildings or structures that will generate wastewater. Therefore, future projects funded by the VHRP will not interfere with any wastewater treatment providers' service capacity.

OR

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less Than Significant Impact: Implementation of the VHRP and construction of future projects funded by the VHRP could potentially generate solid waste. If construction activities ultimately require solid waste disposal, there are numerous solid waste disposal facilities within the County of San Diego. All solid waste facilities, including landfills require solid waste facility permits to operate. In San Diego County, the County Department of Environmental Health, Local Enforcement Agency issues solid waste facility permits with concurrence from the California Integrated Waste Management Board (CIWMB) under the authority of the Public Resources Code (Sections 44001-44018) and California Code of Regulations Title 27, Division 2, Subdivision 1, Chapter 4 (Section 21440et seq.). There are five, permitted active landfills in San Diego County with remaining capacity. Therefore, there is sufficient existing permitted solid waste capacity to accommodate the project's solid waste disposal needs.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

- ☐ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☑ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Less than Significant Impact: Implementation of the VHRP and construction of future projects could potentially generate solid waste. All solid waste facilities, including landfills require solid waste facility permits to operate. In San Diego County, the County Department of Environmental Health, Local Enforcement Agency issues solid waste facility permits with concurrence from the California Integrated Waste Management

Board (CIWMB) under the authority of the Public Resources Code (Sections 44001-44018) and California Code of Regulations Title 27, Division 2, Subdivision 1, Chapter 4 (Section 21440et seq.). Future projects funded by the VHRP will deposit all solid waste at a permitted solid waste facility and therefore, will comply with federal, state, and local statutes and regulations related to solid waste.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: Per the instructions for evaluating environmental impacts in this Initial Study, the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in sections IV and V of this form. In addition to project specific impacts, this evaluation considered the projects potential for significant cumulative effects. As a result of this evaluation, the project was determined to have potential significant effects related to biological and cultural resource. While mitigation has been proposed in some instances that reduce these effects to a level below significance, the effectiveness of this mitigation to clearly reduce the impact to a level below significance is unclear. Therefore, this project has been determined to potentially meet this Mandatory Finding of Significance.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

- ☑ Potentially Significant Impact
- ☐ Less than Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ No Impact

Discussion/Explanation:

Potentially significant Impact: Per the instructions for evaluating environmental impacts in this Initial Study, the potential for adverse cumulative effects were considered in the response to each question in sections I through XVI of this form. In addition to project specific impacts, this evaluation considered the projects potential for incremental effects that are cumulatively considerable. As a result of this evaluation, there is a potential for cumulative effects associated with this project. Therefore, cumulative impacts will be further discussed in the PEIR.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

- ☑ Potentially Significant Impact
- ☐ Less Than Significant With Mitigation Incorporated
- ☐ Less than Significant Impact
- ☐ No Impact

Discussion/Explanation:

Potentially Significant Impact: In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to certain questions in sections I. Aesthetics, III. Air Quality, V. Biological Resources, V. Cultural Resources, VI. Geology and Soils, VIII Hydrology and Water Quality, X. Mineral Resources, and XI. Noise. Therefore, this impact will be further discussed in the PEIR.

XVIII. REFERENCES USED IN THE COMPLETION OF THE INITIAL STUDY CHECKLIST

All references to federal, state and local regulation are available on the Internet. For federal regulation refer to http://www4.law.cornell.edu/uscode/. For State regulation refer to www.leginfo.ca.gov. For County regulation refer to www.amlegal.com. All other references are available upon request.

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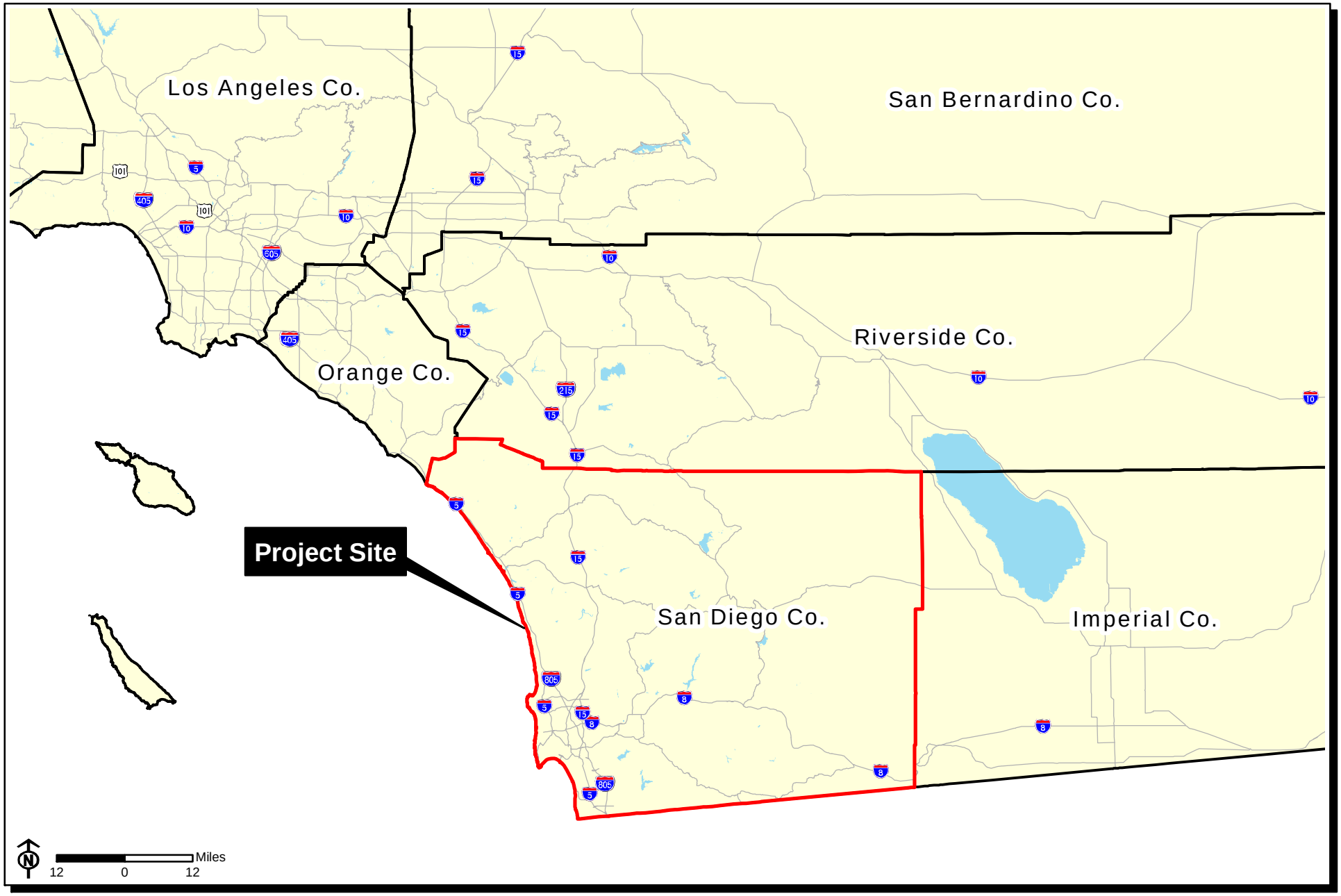

Vector Habitat Remediation Program PEIR

Regional Map

FIGURE 1

APPENDIX C GLOBAL CLIMATE CHANGE ANALYSIS

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March 20, 2009

Ms. Julia Quinn and Mr. Jeff Kashak
Department of Public Works
County of San Diego
5469 Kearny Villa Road, Suite 305
San Diego, California 92123

VIA MAIL AND EMAIL
Julia.Quinn@sdcounty.ca.gov
Jeff.Kashak@sdcounty.ca.gov

Subject: Global Climate Change Analysis for the Vector Habitat Remediation Program Environmental Impact Report

Dear Ms. Quinn and Mr. Kashak:

BonTerra Consulting is pleased to transmit this Global Climate Change Analysis for the Vector Habitat Remediation Program (VHRP) Environmental Impact Report (EIR). This analysis was prepared in response to your request of March 16, 2009, and in accordance with BonTerra Consulting's proposal of March 18, 2009, that the County has authorized through their contract with EDAW.

The format of the attached analysis follows the format of the VHRP EIR Air Quality section that was provided for guidance.

Please contact me at (714) 444-9199 if you have any questions or require further information.

Sincerely,

BONTERRA CONSULTING

James P. Kurtz

James P. Kurtz
Director, Air Quality & Acoustical Services

cc: Bill Maddux, EDAW

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COUNTY OF SAN DIEGO
VECTOR HABITAT REMEDIATION PROGRAM

March 20, 2009

Analysis of Global Climate Change Impacts

Existing Conditions

General Description of Global Climate Change

Global climate change is currently an important and controversial environmental, economic, and political issue. The increasing emissions of greenhouse gases (GHGs)—primarily associated with the burning of fossil fuels (during motorized transport, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.), deforestation, agricultural activity, and solid waste decomposition—have led to a trend of anthropogenic warming of the earth's average temperature, which is causing changes in the earth's climate. This increasing temperature phenomenon is known as "global warming" and the climatic effect is known as "climate change" or "global climate change."

Recent scientific research indicates very high confidence (i.e., at least 90 percent) that the rate and magnitude of current global temperature changes are anthropogenic and that global warming will lead to adverse climate change effects around the globe (IPCC 2007). Anthropogenic effects, processes, objects, or materials are those that are derived from human activities, as opposed to those occurring in natural environments without human influence.

Greenhouse Gases

Atmospheric gases and clouds within the earth's atmosphere influence the earth's temperature by absorbing most of the infrared radiation that rises from the earth's sun-warmed surface and that would otherwise escape into space. This process is commonly known as the "greenhouse effect." GHGs are emitted by natural processes and human activities. The earth's surface temperature averages about 58°F because of the Greenhouse Effect. Without it, the earth's average surface temperature would be somewhere around an uninhabitable 0°F (Henson 2006). The resulting balance between incoming solar radiation and outgoing radiation from both the earth's surface and atmosphere keeps the planet habitable.

GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Anthropogenic emissions of GHGs into the atmosphere enhance the Greenhouse Effect by absorbing the radiation from other atmospheric GHGs that would otherwise escape to space, thereby trapping more radiation in the atmosphere and causing temperature to increase. The most common GHG is CO_2, which constitutes approximately 84 percent of all GHG emissions in California (CEC 2006). Worldwide, the State of California ranks as the 12th to 16th largest emitter of CO_2 and is responsible for approximately 2 percent of the world's CO_2 emissions (CEC 2006b).

GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. While pollutants with localized air quality effects have relatively short atmospheric lifetimes (generally on the order of a few days), GHGs have relatively long atmospheric lifetimes ranging from one year to several thousand years. The long atmospheric lifetimes allow for GHGs to disperse around the globe. In addition, the impacts of GHGs are borne globally, as opposed to the localized air quality effects of criteria air pollutants and TACs.

GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to carbon dioxide. For example, since CH_4 and N_2O are approximately 21 and 310 times more powerful than CO_2, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 21 and 310 (CO_2 has a global warming potential of 1). Carbon dioxide equivalent (CO_2e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO_2e. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 1.

General Environmental Effects of Global Climate Change

Scenarios of Climate Change in California: An Overview (Climate Scenarios report), was published in February 2006 and discusses the impacts of climate change on California (CCCC 2006a). The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project three potential ranges of temperature increase. According to the report, substantial temperature increases would result in a variety of impacts to California's people, economy, and environment with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Under the emissions scenarios of the Climate Scenarios report and a subsequent analysis (CCCC 2006b), the impacts of global warming in California are anticipated to include, but are not limited to, the following:

- Public Health. Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to O_3 formation are projected to increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background O_3 levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

  In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

- Water Resources. A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from Northern California rivers and the Colorado River. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

  If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. the loss of snowpack would pose challenges to water managers, hamper hydropower generation, and nearly eliminate all skiing and other snow-related recreational activities.

  The State's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater

intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta—a major California fresh water supply.

- Agriculture. Increased GHG emissions are expected to cause widespread changes to the agriculture industry, reducing the quantity and quality of agricultural products statewide. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development will change, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures are likely to worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts, and milk.

  In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

- Forests and Landscapes. Global warming is expected to intensify the risk of wildfire and resultant altering of the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. For example, if precipitation increases as temperatures rise, wildfires in Southern California are expected to increase by approximately 30 percent toward the end of the century. In contrast, precipitation decreases could increase wildfires in Northern California by up to 90 percent.

Global, National, and State Contributions to Greenhouse Gas Emissions

Global. Anthropogenic GHG emissions worldwide as of 2006 totaled approximately 29,700 CO_2 equivalent million metric tons ($MMTCO_2e$).[1]

United States. The United States was the top producer of greenhouse gas emissions as of 2005. Based on GHG emissions in 2005, six of the states—Texas, California, Ohio, Pennsylvania, Florida, and Illinois, in ranked order—would each rank among the top 25 GHG emitters internationally (WRI 2008). The primary greenhouse gas emitted by human activities in the United States was CO_2, representing approximately 85 percent of total GHG emissions (USEPA 2008). Carbon dioxide from fossil fuel combustion, the largest source of U.S. GHG emissions, accounted for approximately 80 percent of U.S. GHG emissions (USEPA 2008).

State of California. Based upon the 2004 GHG inventory data (the latest year available) compiled by California Air Resources Board (CARB) for the California 1990 greenhouse gas emissions inventory, California emitted emissions of 484 $MMTCO_2e$, including emissions resulting from out-of-state electrical generation (CARB 2007). A California Energy Commission

[1] The CO_2 equivalent emissions are commonly expressed as "million metric tons of carbon dioxide equivalent ($MMTCO_2e$)" The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated GWP, such that $MMTCO_2e$ = (million metric tons of a GHG) x (GWP of the GHG). For example, the GWP for methane is 21. This means that emissions of one million metric tons of methane are equivalent to emissions of 21 million metric tons of CO_2.

(CEC) emissions inventory report placed CO_2 produced by fossil fuel combustion in California as the largest source of GHG emissions in 2004, accounting for 81 percent of the total GHG emissions (CEC 2006). CO_2 emissions from other sources contributed 2.8 percent of the total GHG emissions, methane emissions 5.7 percent, nitrous oxide emissions 6.8 percent, and the remaining 2.9 percent was composed of emissions of high-GWP gases, mostly refrigerants (CEC 2006). The primary contributors to GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions are presented in Table 2, GHG Sources in California.

San Diego County. A regional GHG inventory was prepared by the University of San Diego School of Law Energy Policy Initiative Center (Anders et al. 2008). This San Diego County Greenhouse Gas Inventory takes into account the unique characteristics of the region in calculating emissions. The total estimated GHG emissions for San Diego County in 2006 were 34 MMTCO2e. The GHG inventory calculated GHG emissions for 2006 as shown in Table 3.

Regulatory Environment

Federal

There are no federal laws or regulations governing the emission of GHGs.

House Resolution (HR) 6, the 2007 Energy Bill, mandates improved national standards for vehicle fuel economy (Corporate Average Fuel Economy [CAFE] standards). These standards require a fleetwide average of 35 miles per gallon (mpg) to be achieved by 2020. The National Highway Traffic Safety Administration is directed to phase-in requirements to achieve this goal. Analysis by the CARB suggests that achieving this goal will require an annual improvement in fleetwide average fuel economy of approximately 3.4 percent between now and 2020 (CARB 2008). Although the explicit purpose of requiring improved national standards for fuel economy was not to address climate change, these requirements would improve the fuel economy of the nation's vehicle fleet, and therefore incrementally lower the amount of fuel use and GHG emissions associated with vehicle trips generated by the proposed project.

State

There are numerous State plans, policies, regulations, and laws related to GHG and global climate change. Following is a brief discussion of some of these plans, policies, and regulations.

Assembly Bill 1493. In 2002, Governor Gray Davis signed Assembly Bill (AB) 1493, which required CARB to develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, CARB approved amendments to the *California Code of Regulations* adding GHG emission standards to California's existing motor vehicle emission standards and required automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016. In order to enact state standards for vehicle emissions, a waiver is required from the USEPA.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of the GHG emission standards. In December 2007, after various delays and the settlement of related federal court cases, the judge in the case ruled in California's favor. Subsequently, however, the USEPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging the USEPA's denial on January 2, 2008. California's waiver request has not been granted as of this writing, but the Obama administration has directed the USEPA to reexamine their decision.

Executive Order S-3-05, signed by Governor Arnold Schwarzenegger on June 1, 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. In an effort to avoid or reduce the impacts of climate change, Executive Order #S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

Assembly Bill 32, the California Global Warming Solutions Act of 2006. The California Legislature adopted the public policy position that global warming is "a serious threat to the economic well-being, public health, natural resources, and the environment of California." Further, the State Legislature has determined that "the potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra Nevada snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health-related problems," and that, "(g)lobal warming will have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry (and)...will also increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the State." These public policy statements became law with the enactment of AB 32, the California Global Warming Solutions Act of 2006, signed by Governor Arnold Schwarzenegger in September 2006.

AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction is to be accomplished through an enforceable statewide cap on GHG emissions to be phased in starting in 2012.

Senate Bill 97, signed August 2007, directs the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, for evaluation under California Environmental Quality Act (CEQA) by July 1, 2009. The Resources Agency is required to certify or adopt those guidelines by January 1, 2010.

Governor's Office of Planning and Research Technical Advisory. On June 19, 2008, the OPR issued a Technical Advisory on addressing climate change impacts of a proposed project under CEQA (OPR Climate Change Advisory) (OPR 2008). The OPR Climate Change Advisory recommends that lead agencies quantify, determine the significance of, and (as needed) mitigate the cumulative climate change impacts of a proposed project. The OPR Climate Change Advisory identifies that each lead agency is required under CEQA to exercise its own discretion in choosing how to determine significance, in the absence of adopted thresholds or significance guidelines from the State, the CARB, or the applicable local air district.

In January 2009, OPR issued *Preliminary Draft CEQA Guideline Amendments for Greenhouse Gas Emissions* (OPR 2009) that included the following:

(a) A lead agency should consider the following, where applicable, in assessing the significance of impacts from greenhouse gas emissions, if any, on the environment:

(1) The extent to which the project could help or hinder attainment of the state's goals of reducing greenhouse gas emissions to 1990 levels by the year 2020 as stated in the Global Warming Solutions Act of 2006. A project may be considered to help attainment of the state's goals by being consistent with an adopted statewide 2020 greenhouse gas emissions limit or the plans, programs, and regulations adopted to implement the Global Warming Solutions Act of 2006;

(2) The extent to which the project may increase the consumption of fuels or other energy resources, especially fossil fuels that contribute to greenhouse gas emissions when consumed;

(3) The extent to which the project may result in increased energy efficiency of and a reduction in overall greenhouse gas emissions from an existing facility;

(4) The extent to which the project impacts or emissions exceed any threshold of significance that applies to the project.

OPR proposes adding the following section to the CEQA Initial Study Checklist:

GREENHOUSE GAS EMISSIONS – Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

SDAPCD

The SDAPCD has no regulations relative to GHG emissions.

County of San Diego

The County has no regulations relative to GHG emissions.

In November 2008, the County issued *Draft County of San Diego Interim Guidelines for Determining Significance, and Report Format and Content Requirements, Climate Change* for review and comment (County of San Diego 2008). Subsequently, the County determined to delay development of these guidelines pending further development at the State level.

The County has a Green Building Incentive Program that is a voluntary program to promote energy- and resource-efficient building design. Incentives, in the form of fast-track plan checking and fee reductions, are offered to developers who use recycled materials in construction, install irrigation systems using greywater, build projects that exceed the energy efficiency standards of California's Title 24, or install photovoltaic electricity generation systems.

Background Air Quality Data

There are no local or regional measurements of background GHGs. As described above, GHG is a global pollutant. The Global, National, and State Contributions to Greenhouse Gas Emissions section above includes data describing County emissions of GHGs.

Analysis of Project Effects and Determination as to Significance

There are no established federal, State, or local significance criteria for global climate change impacts or GHG emissions. The June 2008 OPR Technical Advisory and the January 2009 OPR proposed changes to the CEQA guidelines suggest quantitative and qualitative approaches to analysis, but do not suggest quantitative criteria. Rather, the OPR proposals defer the selection of specific significance criteria to lead agencies, in a similar manner as occurs for criteria air quality pollutants.

During 2008, the CARB, the South Coast Air Quality Management District (SCAQMD), and the County, separately, developed proposed significance criteria that include quantitative GHG emissions thresholds, performance standards, or both. The CARB process is continuing, with current plans to issue revised proposals in late March 2009 followed by public workshops. The SCAQMD has adopted interim thresholds for stationary source projects where SCAQMD is the lead agency and has chosen to defer action for residential and commercial projects pending CARB actions. As noted above, the County has also deferred action pending State activities.

It is accepted as very unlikely that any individual development project would have GHG emissions or a magnitude to directly impact global climate change. For purposes of the CEQA analysis of the Proposed Action Alternative, the County will use the following significance criterion:

Guideline for the Determination of Significance

There would be a significant cumulative contribution to global climate change if the Proposed Action Alternative would conflict with the goals and strategies of AB 32 to reduce GHGs to 1990 levels by 2020.

Analysis

In accordance with the guidance from OPR, a quantitative estimate of GHG emissions was made. Although the VHRP activities are not specifically defined at the program level of analysis, it was assumed that site remediation activities, such as trash and debris removal, vegetation removal, sediment removal, water course alteration, revegetation, and retrofitting stormwater facilities, could require the use of 3 pieces of construction equipment, each operating 130 days per year. These activities would also require the import and export of materials resulting in on-road materials hauling with 92 vehicle miles traveled (VMT) per day. It was assumed that the VHRP programs could include inspections, public outreach, and administrative support requiring automobile and truck vehicle use averaging 215 VMT per day. With these assumptions, the annual GHG emissions are calculated at 139 metric tons of CO_2 equivalent ($MTCO_2e$) per year.

As described above, the County, the CARB and the SCAQMD have prepared draft CEQA significance thresholds and guidelines for GHG emissions and global climate change. These criteria include screening levels to identify those projects where detailed analysis and mitigation measures may be required A criterion used by various agencies for selecting a screening level is that the projects exceeding the level would emit 90 percent of the GHG in the region. Thus, projects below the screening level would be very small and therefore may be presumed to have a less than significant effect on climate change.

The County's draft guidelines proposed a screening threshold of 900 $MTCO_2e$ per year. The SCAQMD interim guidelines for stationary sources include a 10,000 $MTCO_2e$ per year screening threshold, and the SCAQMD draft guideline screening threshold for residential and commercial projects is 3.000 $MTCO_2e$ per year. Although these screening thresholds have not

been adopted, they represent appropriate available guidance to conclude that the VHRP would be a small project with respect to GHG emissions and would not make a cumulatively considerable contribution to global climate change.

Therefore, the proposed VHRP would not conflict with the goals and strategies of AB 32 to reduce GHGs to 1990 levels by 2020, and the impact would be less than significant.

Conclusion

The VHRP would result in the emission of GHGs through the operation of construction equipment, on-road materials hauling, and on-road use of support and administrative vehicles. Estimated annual GHG emissions would be less than small project screening levels proposed by the County and other agencies. Therefore, the proposed VHRP would not conflict with the goals and strategies of AB 32 to reduce GHGs to 1990 levels by 2020, and the impact would be less than significant

TABLE 1
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide (CO_2)	50–200	1
Methane (CH_4)	12	21
Nitrous Oxide (N_2O)	114	310
HFC-134a	48.3	1,300
PFC: Tetrafluoromethane (CF_4)	50,000	6,500
PFC: Hexafluoroethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900
Source: USEPA 2002		

TABLE 2
GHG SOURCES IN CALIFORNIA

Source Category	Annual GHG Emissions ($MMTCO_2e$)[a]	Percent of Total	Annual GHG Emissions ($MMTCO_2e$)[b]	Percent of Total
Agriculture	27.9	5.8	27.9	6.6
Commercial Uses	12.8	2.6	12.8	3.0
Electricity Generation	119.8	24.7	58.5	13.8
Forestry (excluding sinks)	0.2	0.0	0.2	0.0
Industrial Uses	96.2	19.9	96.2	22.7
Residential Uses	29.1	6.0	29.1	6.9
Transportation	182.4	37.7	182.4	43.1
Other[c]	16.0	3.3	16.0	3.8
Totals	**484.4**	**100.0**	**423.1**	**100.0**

[a] Includes emissions associated with imported electricity, which account for 61.3 $MMTCO_2e$ annually.
[b] Excludes emissions associated with imported electricity.
[c] Unspecified combustion and use of ozone-depleting substances.

Source: CARB 2007.

TABLE 3
SAN DIEGO COUNTY GHG EMISSIONS – 2006

Sector	GHG Emissions ($MMTCO_2e$)	Percent of Total Emissions
On-Road Transportation	16.0	46.9
Electricity	8.3	24.3
Natural Gas Consumption	2.9	8.5
Civil Aviation	2.0	5.9
Industrial Processes & Products	1.6	4.7
Other Fuels/Other	1.3	3.8
Off-Road Equipment & Vehicles	1.3	3.8
Waste	0.4	1.2
Agriculture/Wildfires/Land Use	0.6	1.8
Rail Transportation	0.3	0.9
Water-Borne Navigation	0.1	0.3
Sequestration from Land-cover	(0.7)	-2.1
Total	**34**	**100**

Source: Anders et al. 2008.

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