REVISED FINAL ENVIRONMENTAL IMPACT REPORT AND TECHNICAL APPENDICES A THROUGH D

GREGORY CANYON LANDFILL

VOLUME I

San Diego County
Department of Environmental Health
1255 Imperial Avenue
San Diego, CA 92112

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Volume I

Volume II

Volume III

Volume IV

Chapter 1.0
Introduction

This document indicates the revisions to the former FEIR and now 2003 Draft EIR as follows: (1) new text is underlined, (2) where a paragraph includes both new and deleted text, the entire paragraph is underlined, and (3) where entire new sections are added or sections from the 2003 Draft EIR substantially edited, the section will be designated as new. The Department of Environmental Health believes that these procedures will identify those areas where the 2003 Draft EIR has been revised while creating a readable, stand-alone document accessible to the public.
In addition, revisions made between the Revised Partial Draft EIR and the Revised Final EIR are highlighted.

1.1 PURPOSE AND CONTENT OF THE REVISED FINAL EIR

Section 15132 of the California Environmental Quality Act (CEQA) Guidelines (14 California Code of Regulations Section 15000, et. seq.) states that the Final EIR shall consist of: "(a) the Draft EIR or a revision of the draft; (b) comments and recommendations received on the Draft EIR either verbatim or in summary; (c) a list of persons, organizations, and public agencies commenting on the Draft EIR; (d) the responses of the Lead Agency to significant environmental points raised in the review and consultation process; and (e) any other information added by the Lead Agency."

This volume, Volume I of the Revised Final EIR, consists of the same chapters and sections that were contained in the Revised Partial Draft EIR. Edits have been made to the Revised Partial Draft EIR as needed based on comments received on the Revised Partial Draft EIR. Revisions between the Revised Partial Draft EIR and the Revised Final EIR are highlighted. Please see Section 1.4 for a discussion and matrix of revisions.

The technical appendices that support the analyses contained in the Revised Final EIR are provided in Volume I. Volumes II and III contain Appendix E, Response to Comments, which contain a matrix of agencies, organizations, and persons commenting on the Revised Partial Draft EIR. In addition, Appendix E contains the letters and/or emails received during the public review period for the Revised Partial Draft EIR in accordance with CEQA Section 15088. The transcript from the August 14, 2006 public meeting is also provided in Appendix E. In each case the comment letter is provided first, with the comments bracketed and numbered in the margin. The comment number consists of the numerical identifier and the number of the comment within that letter. Responses for the bracketed comments in a letter follow immediately after each letter. Volume IV contains materials that are used in support of the responses to the comments.

The FEIR for the Gregory Canyon Landfill was certified and approved on February 6, 2003. The adequacy of the FEIR was subsequently challenged in a case filed before the Honorable Michael Anello entitled Riverwatch v. County of San Diego Department of Environmental Health, et al.; case number GIN038227. On October 3, 2005 the Court issued a final minute order finding most of the FEIR adequate and in compliance with the California Environmental Quality Act but also noting three deficiencies. The Court held that the FEIR was required to evaluate new traffic information contained in a 2003 County tribal traffic study known as the 2003 Traffic Needs Assessment Study. The Court also held that the FEIR was required to identify the sources of water necessary to construct and operate the landfill and to analyze the impacts of obtaining that water. Finally, the Court required that mitigation measures for biological resources be modified as necessary to comply with Section 5R of Proposition C. On January 20, 2006, the Court issued a final order and judgment decertifying the FEIR and requiring additional environmental review to comply with the three defects noted by the Court.

The portion of the Court's order related to a discussion of the 2003 Traffic Needs Assessment Study is addressed in Section 4.5.3.2 beginning on page 4.5-19. The portion of the Court's order related to water supply is addressed in Section 4.15, beginning on page 4.15-1, and in Section 4.5.3.7 beginning on page 4.5-29. Mitigation measures for project impacts on biological resources in compliance with Section 5R of Proposition C are included in Section 4.9.4, beginning on page 4.9-18.

In addition, several sections of the 2003 Draft EIR have been revised to analyze new actions that have been taken after the last Draft of the EIR was completed. Table ES-1 included in the executive summary describing potential impacts of the project, mitigation measures, and the level of significance after mitigation has been revised to reflect the changes made in this document. The project description has been revised to reflect the fact the project will include a double composite liner with an additional drainage layer and an additional HDPE geomembrane and to describe recycled water facilities that will be included in the facilities area. A discussion has been added to the land use section discussing the Countywide Siting Element adopted by the Integrated Board on September 21, 2005 and project consistency with this new Siting Element. The noise section has been updated based upon new traffic and noise studies completed in 2006. The traffic section has been revised to discuss a new traffic study that has been completed in addition to evaluating the 2003 Traffic Needs Assessment Study. The biological resources section has been updated to reevaluate impacts of the project to upland habitat for the arroyo toad, to reanalyze project impacts to vegetation communities, and to reevaluate project traffic noise to sensitive habitat, in addition to revising mitigation measures for biologic impacts to comply with Section 5R of Proposition C.

The archaeology and cultural resources section (4.11) and the ethnohistory and Native American interests section (4.12) have been revised to include a discussion of project impacts associated with the potential future nomination of Gregory Mountain and Medicine Rock as historic resources eligible for inclusion in the National Register of Historic Places. The water services and facilities section has been revised to analyze sources of water available to serve the project and the environmental impacts associated with obtaining this water. Chapter 10 has been revised and updated to reflect changes to the project design and mitigation measures.

1.1.1 SUMMARY OF REVISIONS

The following summarizes the revisions to the prior 2003 Draft EIR for the project:

Executive Summary: Table ES-1 included in the executive summary describing potential impacts of the project, mitigation measures, and the level of significance after mitigation has been revised to reflect the changes made in this document.

Section 3.0, Project Description: The project description has been revised to include the double composite liner with an additional drainage layer and an additional HDPE geomembrane previously approved by the LEA rather than the single composite liner originally described in the Draft EIR. The ancillary facilities section of the Project Description (3.2.4) has been revised to include the facilities necessary to serve recycled water for the project.

Section 4.1, Land Use: The land use section has been revised to include a discussion of the Countywide Siting Element adopted by the California Integrated Waste Management Board on September 21, 2005 and project consistency with this new Siting Element.

Section 4.5, Traffic and Circulation: The traffic section of the Draft EIR has been updated based upon a new 2006 traffic study that has been completed to discuss traffic information contained in the County's 2003 Tribal Traffic Study and to discuss traffic impacts related to the use of recycled water from another location.

Section 4.6, Noise and Vibration: The noise section of the Draft EIR has been updated to reflect new traffic and noise studies completed in 2006.

Section 4.9, Biological Resources: This section has been updated to reevaluate impacts of the project to upland habitat for the arroyo southwestern toad, to reanalyze project impacts to vegetation communities, to reanalyze traffic noise impacts on sensitive habitat, to revise mitigation measures for biologic impacts to comply with Section 5R of Proposition C, and to reflect mitigation measures recommended in a new 2006 biological technical report.

Sections 4.11 and 4.12, Archaeological and Cultural Resources and EthnoHistory and Native American Interests: The sections on archaeological and cultural resources (Section 4.11) and ethnohistory and Native American interests (Section 4.12) have been revised to include a discussion of project impacts associated with the potential future nomination of Gregory Mountain and Medicine Rock as historic resources eligible for inclusion in the National Register of Historic Places.

Section 4.15, Public Services and Utilities: The water services and facilities section (4.15.3) has been revised to analyze sources of water available to serve the project and the environmental impacts associated with obtaining this water.

Chapter 10, Project Design Features and Mitigation Monitoring and Reporting Program: Chapter 10 has been revised and updated to reflect changes in project design features and mitigation measures.

Chapter 11, Unavoidable Significant Adverse Impacts: Chapter 11 has been revised and updated to address additional significant unmitigable impacts.

The following sections have not been revised: Chapter 2 (Project Need, History, and Objectives), 4.2 (Geology and Soils), 4.3 (Hydrogeology), 4.4 (Surface Hydrology), 4.7 (Air Quality and Air Toxics Health Risk), 4.8 (Agricultural Resources), 4.10 (Paleontological Resources), 4.13 (Aesthetics), 4.14 (Socioeconomics), 4.16 (Human Health and Safety), Chapter 5 (Cumulative Impacts), Chapter 6 (Alternatives), Chapter 7 (Significant Irreversible Environmental Impacts), Chapter 8 (Growth Inducing Impacts), Chapter 9 (Effects Not Found to be Significant).

1.2 AVAILABILITY OF THE REVISED FINAL EIR

The Revised Final EIR is available on the internet through DEH's web site at http://www.sdcounty.ca.gov/deh/. In addition, the Revised Final EIR has been distributed to commenting agencies. Notice of the completion of the Revised Final EIR has been sent to agencies, organizations, and individuals on the original distribution list, as well as those who have commented on the Revised Partial Draft EIR.

The Revised Final EIR is available for review at:

San Diego County Department of Environmental Health
9325 Hazard Way
San Diego, CA 92123
Contact Person: Rebecca LaFreniere

In addition, the Revised Final EIR is available for review at the following locations:

San Diego County Department of Environmental Health
1255 Imperial Avenue
San Diego, CA 92112-9261

San Diego County Department of Environmental Health
151 Carmel Street
San Marcos, CA 92078

Fallbrook Public Library
124 S. Mission Road
Fallbrook, CA 92028-2825

Escondido Public Library
239 S. Kalmia Street
Escondido, CA 92025-4224

Valley Center Public Library
29200 Cole Grade
Valley Center, CA 92082-6553

San Diego (Downtown) Public Library
820 E. Street
San Diego, CA 92101-6478

The document is also available for copying at:

San Diego County Department of Environmental Health
9325 Hazard Way
San Diego, CA 92123

1.3 INCORPORATION BY REFERENCE

As permitted by Section 15150 of the CEQA Guidelines, this Revised Final EIR references various technical studies, analyses, and reports. Technical reports used specifically for the preparation of the Revised Final EIR are provided in the technical appendices which are contained in Volume I.

Documents incorporated by reference include the 2003 Draft EIR. As discussed in Section 1.1, the Revised Partial Draft EIR was prepared in response to the Court's final minute order, which noted deficiencies in the EIR. In addition, the San Diego County Integrated Waste Management Plan and Siting Element, which was adopted in 2005, is incorporated by reference. A Joint Technical Document (JTD) prepared in accordance with Title 27, California Code of Regulations dated November 2004, is on file at DEH, and is also incorporated by reference. It should be noted that a JTD is an evolving document and on-going revisions are made in response to agency review and comment as the project is further refined. The project as designed complies with current federal regulations governing municipal solid waste facilities promulgated in 1993 under the Resource Conservation and Recovery Act, also known as Subtitle D. The regulations are incorporated by reference. In addition, the U.S. EPA recently commissioned a study to assess the performance of modern liner systems. The findings of the study are contained in a study prepared by Bonaparte, Daniel and Koerner (2002), entitled Assessment and Recommendations for Improving the Performance of Waste Containment Systems, which is hereby incorporated by reference. There is a proposed Pala Casino expansion in the vicinity of the landfill site. The County of San Diego submitted written comments on the Notice of Preparation for the Tribal EIR. The Tribal EIR prepared for the proposed expansion was available in November 2006 for public review. The County comment letter and the Tribal EIR are incorporated by reference. Finally, the Reservoir Site is located within the Santa Fe Valley Specific Plan area. The Specific Plan and the Final EIR for the Specific Plan are also incorporate by reference.

1.4 REVISIONS TO THE EIR

As a result of the comments received on the Revised Partial Draft EIR, revisions or clarification of the information contained in the Revised Partial Draft EIR have been made. Revisions made since the Revised Partial Draft EIR are highlighted. Table 1-1 provides a summary of the revisions made to the Revised Partial Draft EIR based on the response to comments.

TABLE 1-1
INDEX OF REVISIONS

REVISED FINAL EIR PAGE	REVISION
Global Changes	Change "Partial Draft' to "Final", as appropriate
	Change "Maranatha Way" to "Maranatha Drive"
	Change "project site" to "landfill site" where appropriate for clarification
	Change "project" to "landfill," where appropriate
1-1	Add "In addition, revisions made between the Revised Partial Draft EIR and the Revised Final

REVISED FINAL EIR PAGE	REVISION
	EIR are highlighted." to introductory box
	Insert "AND CONTENT" in Heading
	Add text regarding Revised Final EIR
1-2	Insert ", and in Section 4.5.3.7 beginning on page 4.5-29"
	Insert "2003" before "Draft EIR"
	Delete paragraph preceding Heading 1.1.1
1-3	Change "DEIR" to "2003 Draft EIR"
	Insert "and to discuss traffic impacts related to the use of recycled water from another location"
1-4	Add text regarding availability of Revised Final EIR
	Insert "In addition,"
	Insert "Notice of the completion of the Revised Final EIR has been sent to agencies," and ", as well as those who have commented on the Revised Partial Draft EIR"
	Change contact person from Kerry McNeill to Rebecca LaFreniere
	Move notice of availability of document on the internet to first paragraph of section
	Delete Section 1.1.2
	Renumber Section 1.3 to 1.2.
1-5	Add Section 1.3, Incorporation by Reference
	Add Section 1.4, Revisions to the EIR
ES-1	Add "from the 2003 Draft EIR"
	Add "Changes from the Revised Partial Draft EIR are highlighted."
ES-2	Change "trough" to "through"
ES-3	Change "1-15" to "I-15"
	Change "trips" to "trucks"
ES-4	Change "complied" to "compiled"
	Capitalize "I-15"
	Insert "value of monetary and non-monetary contributions to" in MM 4.5-4
ES-5	Delete "and realignment of approximately 1700 linear feet" in MM-4.5-4
	Replace "described in the" with "undertaken by the project as a project"
	Change "features" to "feature"
	Insert "mitigation" between "or" and "in" in revised mitigation measure
	Delete "other improvements performed by the project,"
	Insert "and consistent with Proposition C and"
	Add Impact 4.5-7 and Mitigation Measure MM 4.5-7
ES-6	Add Mitigation Measure 4.9b
ES-7	Change 0.5 to 0.8
	Add "*or disturbed southern willow scrub"*
	Change "0.4" to "0.2"
	Add "The final amount of mitigation of these habitats shall be a total of 448 acres with at least 345 acres of coastal sage scrub and 103 aces of either coastal sage scrub or coastal sage scrub/chaparral habitat"
ES-8	MM 49.1d – change "0.2" to "0.4" Change "0.3" to "0.4"
	MM 49.1d – change "2.0" to "3.2"

REVISED FINAL EIR PAGE	REVISION
ES-9	MM 4.9-1e – change "0.1" to "0.2"
	Delete comma between "site" and "or"
ES-10	In Impact 4.9-3, change "0.0002" to "0.002"
ES-11	Underline MM 4.9.3b; change "disbursing" to "dispersing"
	Delete "at a minimum ratio of 5:1"; delete comma between "site" and "or"
ES-15	Impact 4.9-11 – change "0.5" to "0.8"
ES-16	Change "noised" to "noise"
ES-18	Change "this document" to "the Revised Final EIR"
ES-20	Add Impact 4.9-20 and MM 4.9-20 regarding Reservoir Site
3-1	Add "The bedrock will be excavated no more than five feet above the highest anticipated groundwater elevation."
	Footnote 2 – change "contaminate" to "contaminant"
3-2	Revised Exhibit 3.8 to reflect chemical toilet
3-4	Change "Olivenhain's" to "the Olivenhain Municipal Water District (Olivenhain)"
	Change "West" to "west"
	Change "50 million gallon" to "50 gallon"
	Insert "and could also be used to treat recycled water to remove contaminants"
3-5	Revise Exhibit 3.8c to correct size of recycle water storage tank
4.1-1	Add "of the 2003 Draft EIR"
	Add ", and is incorporated by reference"
	Delete "and will be included in Appendix I of the Final EIR" from end of first paragraph
	Delete "permitted" in two locations in fourth paragraph
	Add "as provided in Public Resources Code Section 41701"
4.1-2	Insert "of waste disposal capacity"
4.1-3	Delete "permitted" in two locations in last paragraph
	Insert "of waste disposal capacity" in two locations
4.5-1	Insert "Provides a traffic analysis for transport of recycled water from the Olivenhain Reservoir Site to the landfill site." in summary box
	Insert "(revised 2007)"
	Change "medium" to "median"
4.5-2	Change "on" to "of"
	Correct spelling of "land" to "lane"
	Delete "permitted" in second full paragraph
	Change "affect" to "effect" in two places
4.5-5	Change "proscribed" to "prescribed"
4.5-8	Insert "per million vehicle miles traveled" and "per million vehicle miles"
	Change "to" to "at"
4.5-9	Change "trips" to "trucks"
	Change "Regional Arterial System" to "Regionally Significant Arterial"
4.5-10	Change "675 trips" to "675 PCE trips"
4.5-11	Table 4.5-7 change "1.2 PCE" to "1.5 PCE" in Maximum Volume Trucks calculation
	Add "removal of brine and leachate," to footer in Table 4.5-7

REVISED FINAL EIR PAGE	REVISION
4.5-12	Insert "to the landfill site"
	Insert "recycled"
4.5-16	Capitalize "Table 4.5-9"
4.5-18	Add "Source: Darnell & Associates, 2006" to Table 4.5-10a
4.5-20	Insert "within a three-year time period"
	Change "short" to "near"
4.5-21	Delete "on Table 4.5-11 below"
	Change "short" to "near"
	Insert footnote 5
	Add "in the 2006 Traffic Study in Appendix A"
	Add "Appendix C of"
	Change "As" to "as"
	Add "which is provided in Appendix D" in footnote 6
	Correct spelling from "omissions" to "emissions" in footnote 6
4.5-22	Delete Table 4.5-11
4.5-24	Table 4.5-12B, correct spelling from "plane" to "lane" in table footnote
	Revise numbers in Tables 4.5-12A and 4.5-12B
4.5-25	Revise numbers in Tables 4.5-12C and 4.5-12D
	Change "Table 4.5-12d" to "Table 4.5-12D"
4.5-27	Table 4.5-13B, correct spelling from "plane" to "lane" in table footnote
4.5-29	Change "This section is new" to "All of this section is new"
	Add "Municipal Water District"
	Change "expected during" to "required for"
4.5-30	Exhibit 4.5-10 add Maranatha School site and Maranatha Drive to Aerial of Reservoir Site.
4.5-31	Capitalize "Site"
	Change "7:30 A.M. to 8:30 A.M. and 2:00 P.M. to 3:00 P.M." to "6:45 A.M. to 8:15 A.M. and 2:30 P.M. to 4:15 P.M. on days when the school is in session"
	Change "10" to "12"
	Change "30" to "36"
	Change "being constructed" to "operating"
4.5-32	Change "7:30 A.M. to 8:30 A.M." to "6:45 A.M. to 8:15 A.M."
	Change "2:00 P.M. to 3:00 P.M." to "2:30 P.M. to 4:15 P.M. "
	Add "on days when the school is in session."
	Change "30" to "36"
	Insert footnote 7
4.5-33	Insert "include" between "also" and "conditions"
	Change "7:30 A.M. to 8:30 A.M. and 2:00 P.M. to 3:00 P.M." to "6:45 A.M. to 8:15 A.M. and 2:30 P.M. to 4:15 P.M."
	Change "when students are being dropped off or picked up from school" to " on days when the school is in session"
	Change "30" to "36"

REVISED FINAL EIR PAGE	REVISION
4.5-35	Change "site" to "sight"
	Change bullet point from: Recycled water trucks will be prohibited from using Maranatha Way from 7:30 A.M. to 8:30 A.M. and from 2:00 P.M. to 3:00 P.M. daily while the Maranatha school is in session. To: Construction traffic to complete the improvements at the Reservoir Site and recycled water trucks will be prohibited from using Maranatha Drive from 6:45 A.M. to 8:15 A.M. and from 2:30 P.M. to 4:15 P.M. daily on days when the Maranatha School is in session.
4.5-36	Change "trips" to "trucks"
4.5-37	Change "complied" to "compiled"
	Capitalize "I-15"
4.5-38	Add "value of monetary and non-monetary contributions to"
	Delete "and realignment of approximately 1700 linear feet"
	Add "undertaken by the project as a project"
	Delete "described in the"
	Change "feature" to "feature or mitigation"
	Delete " or other improvements performed by the project,"
	Add "and consistent with Proposition C and"
	Add:
	"Impact 4.5-7: *Recycled water trucks could impact the structural integrity of Maranatha Drive."* "**MM 4.5-7:** The project shall conduct a structural integrity test on the Maranatha Drive pavement to determine ultimate load bearing of the roadway. If necessary, the project shall provide the required pavement overlay to support the heavy vehicle loads that would occur on Maranatha Drive. Any necessary repaving or construction along Maranatha Drive shall be done outside of the operation of the school (i.e., weekends or school breaks) so as to not disrupt school activities."
4.6-1	Add ", including the use of trucked recycled water"
	Change "traffic report" to "Traffic Study"
	Add "The 1999, 2000, and 2002 noise technical reports are provided in Appendix J of the 2003 Draft EIR."
	Add "This report is contained in Appendix J of the 2003 Draft EIR."
	Delete "of the Final EIR" at end of second paragraph
	Capitalize "Traffic Study" in second paragraph. Add "(revised 2007)"
	Delete "All of the noise and vibration reports will be provided as Appendix J of the Final EIR" from end of second and fourth paragraphs
	Delete "2006" preceding "Traffic Study" and "noise analysis" in fourth paragraph
4.6-2	Change "Noise Ordinance" to "County Code"
	Change "appended as Exhibit D" to "included as Appendix D"
4.6-3	Change "Elements" to "Element"
4.6-5	Delete "project" between "landfill" and "would"
	Change "crushed" to "crush"
4.6-7	Add "the"
4.6-8	Revise numbers in Table 4.6-5
4.6-9	Add "project"

REVISED FINAL EIR PAGE	REVISION
	Change "form 0.5 to 2.7" to "from 0.6 to 2.9"
	Change "June 2000" to "February 2007" in footnote 13
4.6-12	Add footnote 14
	Change "7:30 A.M. to 8:30 A.M." to "6:45 A.M. to 8:15 A.M."
	Change "2:00 P.M. to 3:00 P.M." to "2:30 P.M. to 4:15 P.M. on days when the school is in session"
	Change "nine hours" to "7.5 hours"
	Change "10 trucks" to "12 trucks"
	Change "55.5 dBA" to "58.0 dBA"
	Change "2006" to "2007"
	Add "The equivalent 24-hour noise level would be 55.9 dBA CNEL."
	Add "with windows closed"
	Change "35.5 dBA" to "38.0 dBA"
	Add "significant"
4.6-15	Exhibit 4.6-6, add "(2030)" to Exhibit
4.6-16	Add "a"
4.9-1	Add "of the 2003 Draft EIR"
	Add "(revised 2007)"
	Capitalize "Biological Technical Report"
	Change "will be added to Appendix L" to "is provided in Appendix B"
	Add "Revised" before "Final EIR"
	Change "0.2" to "0.4" Change "0.3" to "0.4" Change "0.1" to "0.2"
4.9-4	Change "could" to "would"
	Add "or"
	Change "or" to "and"
4.9-5	Change "upon" to "on"
	Delete "cattle and" in fourth full paragraph
4.9-6	Change "vector or control" to "vector control"
4.9-7	Change "0.2" to "0.4". Change "0.3" to "0.4"
4.9-8	Delete "project" from end of first paragraph in phrase "considered a project significant impact."
	Change "could" to "would"
4.9-13	Change "The soils were hard and high fine silt" to "The soils were hard, and high in fine silt"
4.9-14	Change "could" to "would"
	Change "308.2" to 308.6"
4.9-15	Change "308.2" to 308.6"
	Change figures in Table 4.9-8, add table footnotes
	Change "542.0" to "543.2"
	Change "is" to "are"
4.9-17	Change "2.0" to "4.0"
	Change "2.8" to "4.0"
	Insert "and" after "scrub" and before "disturbed"

REVISED FINAL EIR PAGE	REVISION
	Delete ", and/or mule fat scrub" from end of bottom paragraph
4.9-18	Change "134.2" to "135.4"
	Add footnotes 16 and 17
	Change "542.0" to "543.2"
4.9-19	Change "No changes are made to this section" to "No changes made to Mitigation Measure 4.9a."
	Add MM 4.9b
	Change "0.5" to "0.8"
	Add "or disturbed southern willow scrub"
4.9-20	Change "0.1" to "0.2"
	Add "The final amounts of mitigation of these habitats shall be a total of 448 acres with at least 345 acres of coastal sage scrub and 103 acres of either coastal sage scrub or coastal sage scrub/chaparral habitat."
4.9-21	Change "0.2" to "0.4"; change "0.3" to "0.4"; change "2.0" to "3.2" in MM4.9-1d
	Change "0.1" to "0.2" in MM4.9-1e
	Delete comma between "site" and "or"
4.9-22	Change ".00002" to "0.002" in Impact 4.9-3
	Change "disbursing" to "dispersing"
4.9-23	Delete "at a minimum ratio of 5:1" from MM 4.9-4
	Change "0.5" to "0.8"
4.9-24	Change "this document" to "the Revised Final EIR"
4.9-26	Change "Measure" to "Measures"; add "and 4.9-19c"
	Add MM 4.9-19c from 2003 Draft EIR with revised ratio
	Change "4.9-19c" to "4.9-19d"
	Add: ***"Impact 4.9-20:*** *Improvements at the Reservoir Site could result in impacts to the coastal California gnatcatcher if the improvements were to occur during the breeding season (February 15 through August 31)."* **"MM 4.9-20:** If project construction activities for the improvements of the Reservoir Site are scheduled to occur during the breeding season for coastal California gnatcatcher (February 15 through August 31), three surveys pursuant to U.S. Fish and Wildlife Service protocol shall be conducted to determine the presence or absence of the species in coastal sage scrub habitat within 500 feet of the improvement. If it is determined that the species is absent, construction may proceed without restrictions. If the coastal California gnatcatcher is present within 500 feet of the improvement, no construction activities shall be allowed between February 15 and August 31, unless shielding is used to reduce construction noise levels to less than 60 dBA Leq at the species' habitat. Shielding shall be approved by a qualified acoustician. No coastal California gnatcatcher-related restrictions will be placed on construction activities outside of the coastal California gnatcatcher breeding season."
4.9-27	Add paragraph regarding entry of judgment in San Diego Superior Court Case No. GIN038227.
	Change "on-site" to "off-site"
	Delete ", or created or enhanced habitat areas" from end of top paragraph
4.12-1	Delete "area" between "remaining" and "nominated"
4.12-2	Change "owned by H.G. Fenton and presently" to "previously"
4.12-4	Add "be"

REVISED FINAL EIR PAGE	REVISION
	Add "Revised Final"
4.15-1	Delete "These reports will be included as a new Appendix U of the Final EIR" From end of first paragraph
	Add "(revised 2007)"
4.15-3	Delete sentence "The two proposed sources of water for the project are recycled water and on-site percolating groundwater." following heading 4.15.3.2
4.15-5	Change "(2000)" to "(2001)"
4.15-7	Change "(September 2003)" to "(November 2003)"
	Change "use" to "used"
4.15-11	Revise Exhibit 4.15-5 Location of Bedrock Water Supply Wells
4.15-13	Change "reclaim" to "recycle" and "reclaimed" to "recycled"
	Change "Discussions with both of these agencies indicate that the proposed project application of recycled water is acceptable and additional permitting is not required for its use. Only a waiver " To: "Discussions with both of these agencies indicate that the proposed project application of recycled water is acceptable. A waiver . . ."
	Add ", followed by a revision to Olivenhain's Master Reclamation Permit"
4.15-14	Change "1990" to "2000"
	Add ", followed by a revision to Olivenhain's Master Reclamation Permit"
4.15-18	Revise Exhibit 4.15-8 to correct size of recycled water storage tank
4.15-19	Change "trips" to "trucks"
	Delete "create a hydraulic barrier and"
4.15-20	Change "8 trucks" to "8 to 10 trucks"
	Add "(revised 2007)"
4.15-21	Add column and footnote to Table 4.15-1
	Change "the County's Noise Ordinance" to "County Code Section 36.410"
	Change "and not additional" to ". However,"
	Change "will" to "could"
	Change "from this construction work" to "if construction occurs during the coastal California gnatcatcher breeding season (February 15 through August 31)"
	Add ", and biology impacts can be reduced to a level of less than significant (see MM 4.9-20)"
4.15-22	Add footnote 21
	Delete " and will be included as part of Appendix G to the FEIR" from end of second full paragraph
4.15-23	Delete "Future CO concentrations with the project were estimated with the CALINE4 computer model consistent with guidance provided in the"
	Add "The County of San Diego recommends that assessment methodologies for microscale CO impacts from project-related traffic should follow the current guidance from"
4.15-24	Add footnote 22
	Add "Consistent with the Protocol, intersections with LOS of E or F are generally the most appropriate candidates for detailed analysis."
	Change figures in Table 4.15-3
4.15-25	Delete "(currently under construction)"

REVISED FINAL EIR PAGE	REVISION
	Change "TPM" to "DPM"
	Change "to arrive" to "derived"
	Change 1.3 to 4.2
	Change "one" to "four"
	Add footnote 23
4.15-26	Change "7:30 A.M. to 8:30 A.M." to "6:45 A.M. to 8:15 A.M."; change "2:00 P.M. to 3:00 P.M." to "2:30 P.M. to 4:15 P.M. on days when the school is in session"
	Change "10 trucks" to "12 trucks"
	Change "30 PCE" to "36 PCE"
	Change "cautioning" to "caution"
	Change "7:30 A.M. to 8:30 A.M." to "6:45 A.M. to 8:15 A.M."; change "2:00 P.M. to 3:00 P.M." to "2:30 P.M. to 4:15 P.M. on days when the school is in session."
	Change 55.5 to 58.0
	Change 2006 to 2007
	Change 35.5 to 38.0
	Add footnote 24
	Add "with windows closed"
4.15-27	Add "significant"
	Add "(revised 2007)"
4.15-29	Add footnote 25
4.15-30	Replace " project site each year" with "approximately 415-acre catch basin area on the landfill site"
4.15-31	Change "7:30 A.M. to 8:30 A.M." to "6:45 A.M. to 8:15 A.M."; change "2:00 P.M. to 3:00 P.M." to "2:30 P.M. to 4:15 P.M."
	Change "during" to "daily on days when the Maranatha"
4.15-32	Add Project Design Feature "All construction equipment used at the Reservoir Site shall be equipped with diesel particulate traps and construction activities shall include dust control measures. As part of contracting for recycled water trucks, efforts shall be taken to ensure the use of trucks with particulate traps or trucks that use clean diesel or compressed natural gas, or other options that serve to reduce the emissions of diesel particulates."
10-2	Change "the" to "a"
	Change "site" to "sight"
10-3	Add "Construction traffic to complete the improvement of the OMWD Reservoir Site and recycled"
	Change "7:30 A.M. to 8:30 A.M. and from 2:00 P.M. to 3:00 P.M." to "6:45 A.M. to 8:15 A.M. and from 2:30 P.M. to 4:15 P.M."
	Change "while" to "on days when" and add "Maranatha School"
10-4	Change "7:30 A.M. to 8:30 A.M. and from 2:00 P.M. to 3:00 P.M." to "6:45 A.M. to 8:15 A.M. and from 2:30 P.M. to 4:15 P.M."
	Change "during" to "daily on"
	Add "when the Maranatha"
	Add "All construction equipment used at the Reservoir Site shall be equipped with diesel particulate traps and construction activities shall include dust control measures. As part of contracting for recycled water trucks, efforts shall be taken to ensure the use of trucks with

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	particulate traps or trucks that use clean diesel or compressed natural gas, or other options that serve to reduce the emissions of diesel particulates."
10-7	Change "trips" to "trucks": capitalize "I-15"
10-8	Change "complied" to "compiled"
	Capitalize "I-15"
	Add "value of monetary and non-monetary contributions to "
	Delete "and realignment of approximately 1700 linear feet "
	Add "undertaken by the project as a project"
	Delete "described in the"
	Change "feature" to "feature or mitigation"
	Delete " or other improvements performed by the project,"
	Add "and consistent with Proposition C and"
10-9	Add Mitigation Measure 4.5-7 and verification data
10-10	Add Mitigation Measure 4.9b
	MM 4.9-1a: Add "The final amounts of mitigation of these habitats shall be a total of 448 acres with at least 345 acres of coastal sage scrub and 103 acres of either coastal sage scrub or coastal sage scrub/chaparral habitat."
10-12	Change "0.2" to "0.4"; change "2.0" to "3.2" in MM4.9-1d
	Change "0.1" to "0.2" in MM4.9-1e
10-13	Delete comma between "site" and "or"
10-14	Change "disbursing" to "dispersing" in MM 4.9-3b
10-15	Delete "at a minimum ratio of 5:1" from MM 4.9-4
10-24	Change "this document" to "the Revised Final EIR"
10-26	Add Mitigation Measure 4.9-20 and verification data
10-31	Add "and 4.9-19c"
	Add Mitigation Measure 4.9-19c
11-1	Change "this cumulative traffic condition" to "this traffic condition"
	Change "future cumulative improvements" to "future improvements"
	Change "(near term 2020 buildout and Year 2030" to "(near term, 2020 buildout, and Year 2030)"
	Change "contribute to a cumulatively" to "contribute to cumulatively"
11-2	Add "and the owner has objected"
12-2	Change "William E." to "E. William"
	Add "Services Corporation"
	Add "Heather Riley, Esq."
	Add "Patrick E. Breen, Esq."
13-1	Add Section 13.0 References

EXECUTIVE SUMMARY

This section contains the following revisions to the 2003 Draft EIR:

- *Modifies Table ES-1 to be consistent with changes discussed in this document.*

Table ES-1 contained in the Executive Summary has been modified to reflect revisions to the mitigation measures or disclose potential new impacts described in the Revised Final EIR. Changes to Table ES-1 from the 2003 Draft EIR are underlined. Changes from the Revised Partial Draft EIR are highlighted. Revisions to potential impacts or mitigation measures as a result of the Revised Final EIR occur in Section 4.5, Traffic and Circulation, Section 4.9, Biological Resources, Section 4.11, Archeological and Cultural Resources, and Section 4.12, Ethnohistory and Native American Interests.

TABLE ES-1
SUMMARY TABLE OF PROJECT IMPACTS, MITIGATION MEASURES, AND LEVEL OF SIGNIFICANCE AFTER MITIGATION

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	4.1 LAND USE AND RELATED PLANNING	
[No change is made to this section.]		
	4.2 GEOLOGY AND SOILS	
[No change is made to this section.]		
	4.3 HYDROGEOLOGY	
[No change is made to this section.]		
	4.4 SURFACE HYDROLOGY	
[No change is made to this section.]		
	4.5 TRAFFIC AND CIRCULATION	
This is a Proposition C mitigation measure	**MM 4.5.C5I:** In order to mitigate traffic impacts, the Applicant shall widen and realign State Route 76 on either side of the access road to improve sight distance and to facilitate truck movements. The realigned segment will provide approximately 1,000 feet of site distance in both directions for traffic leaving the landfill. The Applicant shall contribute on a fair share basis to the widening of State Route 76 west of the access road to applicable state standards. The fair share shall be based upon the state standard average daily trips. Striping will be provided for acceleration/deceleration lanes and an over-take lane for through traffic. These realignment plans may be modified as necessary to meet Caltrans requirements.	This is a Proposition C mitigation measure
Impact 4.5-1: *Project traffic could worsen sections of poor surface along SR 76 from Interstate 15 to project access.*	**MM 4.5-1:** The project applicant shall conduct a structural analysis of SR 76 and determine the structural requirements along SR 76 from the Rosemary Mountain Palomar Aggregates project to the proposed landfill entrance to determine whether the existing foundation can accommodate anticipated heavy truck loads. The applicant shall obtain certification from Caltrans for adequate	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	pavement surface to be enforced by the County Department of Public Works. This analysis shall be extended west of the I-15 ramps if the Palomar Aggregate project is not implemented. Construction of the recommended pavement improvements, consistent with Caltrans requirements shall be implemented prior to operation of the landfill, if determined necessary and fair share contribution made by the applicant.	
Impact 4.5-2: *If total project traffic exceeds 2085 PCE trips per day or 675 total trips from all sources, segments of SR 76 east of I-15 would exceed the acceptable LOS D criteria and the project would have a direct impact.*	**MM 4.5-2:** Total project traffic from all sources on any day shall not exceed 2,085 PCE trips or maximum of 675 trucks from all sources. The project shall maintain computerized daily records of total truck trips per day and total project traffic from all sources. These records shall be available for review by the Department of Environmental Health during operational hours. When the project traffic equals 2,085 PCE trips or 675 trucks in any day, the landfill shall be shut down for the balance of that day. The facility will notify the LEA prior to closure. Once 95% of the maximum daily traffic limit is reached, the landfill operator shall immediately notify commercial waste haulers to curtail waste deliveries, pursuant to the contract arrangements described in MM 4.5-3, as needed to assure compliance with the maximum daily traffic limits. Notwithstanding the above, the landfill operator may not refuse acceptance of any waste collection vehicle that was traveling on SR 76 east of I-15 at the time notice was given.	Less than significant
Impact 4.5-3: *With the addition of project peak hour traffic between the hours of 2:00 P.M. and 5:00 P.M., SR 76 east of I-15 would exceed the acceptable LOS D criteria and the project would have a direct impact.*	**MM 4.5-3:** Project traffic shall be limited to the following total trips: TIME — TOTAL TRIPS 2:00 P.M. – 3:00 P.M. — 215 PCE trips or 72 trucks 3:00 P.M. – 4:00 P.M. — 111 PCE trips or 37 trucks 4:00 P.M. – 5:00 P.M. — 111 PCE trips or 37 trucks These hourly restrictions shall terminate when SR 76 is widened to four lanes between I-15 and the landfill access road. Each contract for waste delivery at the landfill shall notify the	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	customer of the peak hour traffic restrictions, shall require that the customer cooperate in good faith in scheduling deliveries to adhere to peak hour restrictions, and shall implement a notification system whereby the customer would be directed to use alternative disposal facilities as needed to assure compliance with the peak hour traffic restrictions. Compliance with peak hour traffic restrictions shall be monitored on the inbound lane of the landfill access road at a location as near as feasible to SR 76. Vehicle trips will be counted manually or, if feasible, electronically, and where appropriate converted into PCE. If traffic counts are obtained or compiled electronically, and if feasible, traffic count data shall be made available to the Department of Environmental Health at its offices on a real-time basis. The landfill operator shall report traffic count information to the Department of Environmental Health weekly in writing. Once 75% of the peak hourly restriction is reached, the landfill operator shall immediately notify commercial waste haulers to curtail waste deliveries, pursuant to the contract arrangements described above, as needed to assure compliance with the peak hour traffic restrictions. Notwithstanding the above, the landfill operator may not refuse acceptance of any waste collection vehicle that was traveling on SR 76 east of I-15 at the time notice was given.	
Impact 4.5-4: *Even though the project does not have a direct impact requiring mitigation under County Guidelines or SANTEC criteria, SR 76 west of I-15 and I-15 between Carmel Mountain Road and Pomerado Road operate in an unacceptable LOS E or F condition with and without project traffic.*	**MM 4.5-4:** At the commencement of operation, the project applicant shall pay the County's Transportation Impact Fee to fund its fair share of improvements to address cumulative impacts. The Regional Transportation Plan (RTP) adopted by SANDAG includes freeway build-out over the next 30 years including the necessary improvements to SR 76 and its intersections with Highway 395 and I-15. The project will receive a credit against this fee for dedicating the ultimate right of way for SR 76 described in Mitigation Measure 4.5-6b and for the value of monetary and non-monetary contributions to improvements of	Significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	SR 76 undertaken by the project as a project design feature or mitigation in accordance with and consistent with Proposition C and County policies and procedures.	
Impact 4.5-5: *For the existing plus other development plus project scenario, the I-15/SR 76 northbound ramp will be adversely impacted by the proposed project and exceed the acceptable LOS D criteria.*	**MM 4.5-5:** At the commencement of operation, the project applicant shall make a fair-share contribution for the addition of an eastbound left turn lane and westbound through lane on the I-15 overcrossing.	Less than significant
Impact 4.5-6: *The project contributes to near term cumulative impacts on SR 76 that will cause SR 76 to operate below the acceptable LOS D standard. By the year 2030, the project contributes to cumulative traffic conditions that will cause all segments of SR 76 and I-15 to operate at unacceptable levels of service and that will cause the intersections of SR 76 and Old Highway 395, SR 76 and Interstate 15 south, and SR 76 and Interstate 15 north to operate at unacceptable levels of service.*	**MM 4.5-6a:** At the commencement of operation, the project applicant shall pay the County's Transportation Impact Fee to fund its fair share of cumulative impacts to SR 76 and the intersections subject to the credits described in Mitigation Measure 4.5-4. **MM 4.5-6b:** The Project Applicant shall make an irrevocable offer of dedication for right-of-way to 108 feet in width within the Project boundary for the widening of SR 76 to four lanes for the County of San Diego Circulation Element, including a designated bike route.	Significant due to uncertainty of timing of road improvements
Impact 4.5-7: *Recycled water trucks could impact the structural integrity of Maranatha Drive.*	**MM 4.5-7:** The project shall conduct a structural integrity test on the Maranatha Drive pavement to determine ultimate load bearing of the roadway. If necessary, the project shall provide the required pavement overlay to support the heavy vehicle loads that would occur on Maranatha Drive. Any necessary repaving or construction along Maranatha Drive shall be done outside of the operation of the school (i.e., weekends or school breaks) so as to not disrupt school activities.	Less than significant
	4.6 NOISE AND VIBRATION	
[No change is made to this section.]		
	4.7 AIR QUALITY	
[No change is made to this section.]		

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	4.8 AGRICULTURAL RESOURCES	
[No change is made to this section.]		
	4.9 BIOLOGICAL RESOURCES	
This is a Proposition C mitigation measure	**MM 4.9.C5N:** All sensitive species and habitat impacted by the project shall be mitigated in accordance with requirements imposed by the USFWS as part of the Section 7 consultation.	This is a Proposition C mitigation measure
This is a Proposition C mitigation measure	**MM 4.16.C5C:** At least five (5) days each week, the Applicant shall inspect for, and clean up, all litter and illegal dumping which occurs on, or adjacent to, the landfill access road and that portion of Highway 76 between the intersection with Interstate 15 and the site. The clean up team shall consist of at least one truck with a minimum crew of two persons.	This is a Proposition C mitigation measure
General measure	**MM 4.9a:** A pre-construction meeting shall take place with a qualified biologist and construction personnel. The biologist shall explain the access restrictions on site, the importance of remaining within construction zones, the sensitivity of the habitats and species on site, and shall explain the potential consequences of violating the access restrictions and impacting biological resources outside the construction zones. Any accidental impacts to sensitive habitat that occur outside the designated impact area shall be mitigated at a 3:1 ratio. A letter from the applicant's biologist and contractor(s) verifying receipt of biological information shall be provided to the County Department of Environmental Health prior to commencement of construction.	Less than significant
	MM 4.9b: In the event any final judgment is entered in San Diego Superior Court Case No. GIN038227 determining that the creation or enhancement of habitat on the landfill site within the 1313 acres of dedicated open space provided by Proposition C violates any provision of Proposition C, or cannot be relied upon as mitigation for purposes of compliance with CEQA because of Proposition C, then any of these mitigation measures permitting the creation or enhancement of habitat on-site shall be construed	

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	to mandate off-site acquisition of this habitat. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to off-site dedicated open space. Provided the off-site acquisition is consistent with that approved plan, the off-site acquisition may occur anywhere within the unincorporated area of San Diego County. A conservation easement shall be placed across the mitigation area to permanently protect the resources.	
Impact 4.9-1: *The following sensitive resources would be significantly impacted by the landfill project and related activities: 170.8 acres of coastal sage scrub, 1.7 acres of disturbed coastal sage scrub, 51.5 acres of coastal sage scrub/chaparral, 22.6 acres of coastal live oak woodland, 27.4 acres of chaparral, 15.8 acres of non-native grassland, 0.6 acres of native perennial grassland, 0.8 acres of southern willow scrub or disturbed southern willow scrub, 0.2 acres of open channel and 0.2 acres of cottonwood willow riparian forest.*	**MM 4.9-1a**: Impacts to 170.8 acres of coastal sage scrub, 1.7 acres of disturbed coastal sage scrub, and 51.5 acres of coastal sage scrub/chaparral shall be mitigated at a minimum ratio of 2:1 through on-site creation or enhancement of 63.6 acres of coastal sage scrub habitat or coastal sage scrub/chaparral habitat, and the off-site acquisition of 384.4 acres of coastal sage scrub or coastal sage scrub/chaparral habitat. The final amount of mitigation of these habitats shall be a total of 448 acres with at least 345 acres of coastal sage scrub and 103 aces of either coastal sage scrub or coastal sage scrub/chaparral habitat. The on-site creation or enhancement of this resource shall be in a dedicated open space area. Off-site acquisitions may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the coastal sage scrub habitat on site or as determined in consultation with the resource	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	agencies.	
	MM 4.9-1b: Impacts to 22.6 acres of coast live woodland shall be mitigated at a minimum ratio of 3:1 by the on-site creation of 67.8 acres of coast live oak woodland. The on-site creation or enhancement of this resource shall be in a dedicated open space area. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs coast live oak woodland or as determined in consultation with the resource agencies.	Less than significant
	MM 4.9-1c: Impacts to 0.6 acres of native perennial grassland shall be mitigated at a minimum ratio of 3:1 through off-site acquisition of 1.8 acres of native perennial grassland. The off-site acquisition may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the native perennial grassland on site or as determined in consultation with the appropriate agencies.	Less than significant
	MM 4.9-1d: Impacts to 0.4 acres of southern willow scrub and 0.4 acres of disturbed southern willow scrub shall be mitigated at a minimum ratio of 4:1 by the on-site creation or enhancement of 3.2 acres of southern willow scrub habitat. On-site creation or enhancement shall be in an area dedicated as open space. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the southern willow scrub or as determined in consultation with the resource agencies.	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	MM 4.9-1e: Impacts to 0.2 acre of open channel shall be mitigated through implementation of the Wetland Mitigation and Habitat Enhancement Plan described in MM 4.9-18 to restore habitat in the San Luis Rey River watershed on site.	Less than significant
	MM 4.9-1f: Impacts to 0.2 acres of cottonwood willow riparian forest shall be mitigated at a minimum ratio of 4:1 by the on-site creation or enhancement of 0.8 acres of cottonwood willow riparian forest. On-site creation or enhancement shall be in an area dedicated as open space. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the cottonwood-willow riparian forest on site or as determined in consultation with the appropriate agencies.	Less than significant
	MM 4.9-1g: Impacts to 27.4 acres of chaparral and 15.8 acres of non-native grassland shall be mitigated at a minimum ratio of 0.5:1 through off-site acquisition of 13.7 acres of chaparral and 7.9 acres of non-native grassland. Off-site acquisitions may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the chaparral or non-native grassland habitat on site or as determined in consultation with the resource agencies.	Less than significant
	MM 4.9-1h: Temporary construction fencing shall be erected under the supervision of a qualified biologist outside the delineated boundary of dedicated open space where it interfaces with impact areas and permanent fencing marked with signs shall	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	be installed around the mitigation areas. Where impact areas are adjacent to coast live oak woodland, fencing shall be erected outside the canopy area at a distance of 1.5 times the canopy radius of the outer trees. This fencing shall be erected prior to commencement of brushing or grading activities. The fencing (for example, strand wire or split rail) shall restrict human and equipment access but shall allow for wildlife movement.	
Impact 4.9-2: *A total of 25 Engelmann oaks would be directly impacted as a result of the project. Since 100 percent of the population would be impacted, this impact would be significant.*	**MM 4.9-2:** A 3:1 minimum replacement acreage (based on canopy area) of Engelmann oak trees shall be created by on-site creation or enhancement of this replacement acreage within the same area designated for creation or enhancement of coast live oak woodland, if possible. Otherwise, a separate acquisition of Engelmann oak trees at 3:1 minimum replacement acreage shall be required. Any on-site creation or enhancement shall be in an area dedicated as open space. Off-site acquisitions may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. This acreage shall then be subtracted from the coast live oak woodland mitigation requirement (MM 4.9-1b) to avoid duplicate mitigation. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs Engelmann oak or as determined in consultation with the resource agencies	Less than significant
Impact 4.9-3*: The loss of approximately 0.002 acres of arroyo southwestern toad riparian breeding habitat from construction of the bridge would be significant.*	**MM 4.9.3a:** In addition to the riparian habitat creation or enhancement described in MM4.9-1d and f, implementation of the Wetland Mitigation and Habitat Enhancement Program described in MM4.9-18 shall be undertaken to mitigate impacts to arroyo southwestern toad riparian breeding habitat.	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	MM 4.9.3b: The removal of toad riparian breeding habitat from riparian vegetation clearing and channel excavation for the bridge shall occur from October through December to minimize potential impacts to breeding adults (including potential sedimentation impacts to toad eggs) and dispersing juveniles.	Less than significant
Impact 4.9-4: *The project would result in the loss of approximately 17.5 acres of suitable arroyo southwestern toad upland habitat on the project site.*	**MM 4.9-4:** Impacts to the 17.5 acres of suitable arroyo southwestern toad upland habitat on site impacted by the project shall be mitigated through on site creation or enhancement of 88 acres of arroyo toad habitat. The on-site creation or enhancement of this resource shall be in a dedicated open space area. The implementation of the mitigation shall be prior to or concurrent with the first construction that impacts the upland arroyo toad habitat on site or as determined in consultation with the resource agencies.	Less than significant
Impact 4.9-5*: The potential loss of individual toads from construction of the landfill and related facilities and the access road/bridge would be significant. In addition, the potential loss of individual toads from roadkill due to traffic on the access road, haul road to Borrow/Stockpile Area A, and low-flow crossing would be significant.*	**MM 4.9-5a:** The construction zone for the bridge shall be fenced with exclusion fencing to prevent toad access to the construction zone. The fencing shall be a silt-screen type barrier comprised of a minimum 24-inch high fence with the remainder (minimum 12 inches) anchored firmly against the ground. The fence may be buried if necessary to exclude toad access. The fence locations shall be identified by a qualified biologist and adjusted as necessary. Exclusion fencing shall be monitored daily by a qualified biologist, and maintained in its original condition by construction personnel for the entire length of the construction period.	Less than significant
	MM 4.9-5b: Pre- and post- exclusion fencing surveys within the construction zone for the bridge shall be conducted for arroyo southwestern toads by a biologist permitted by the USFWS to handle the toad. Prior to construction commencement, a minimum of three surveys shall be conducted by this biologist following installation of the fencing. Daily surveys shall be conducted each morning prior to construction activity. Any toads found shall be relocated to appropriate similar habitat outside project impact areas and in dedicated open space.	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	MM 4.9-5c: Exclusion fencing shall be installed along both sides of the access road for its entire length (except where sides of bridge act as barrier) as part of access road construction. The same exclusion fencing shall also wrap around the northern edge of the facilities area and continue east and south around the 1.8-acre desiltation basin. The fencing shall continue until the topography becomes too steep or rocky on the east side of the landfill footprint as determined by a qualified biologist. The fencing shall be of a corrugated metal or other similar durable material and shall be a minimum of 24 inches high.	Less than significant
	MM 4.9-5d: A minimum of three surveys shall be conducted by a biologist permitted by the USFWS to handle the arroyo southwestern toad following installation of the exclusion fencing along the access road and prior to access road use. Any toads found shall be relocated to appropriate similar habitat outside project impact areas and in dedicated open space.	Less than significant
	MM 4.9-5e: A minimum of three surveys shall be conducted by a biologist permitted by the USFWS to handle the arroyo southwestern toad following installation of exclusion fencing around the facilities area and desiltation basin as described in MM 4.9-5c. Up to three additional surveys shall be conducted if favorable temperature and moisture conditions for toad activity have not already occurred during the first three surveys. Any toads found shall be relocated to appropriate similar habitat outside project impact areas and in dedicated open space.	Less than significant
	MM 4.9-5f: At least one toad undercrossing shall be installed in the fill beneath the access road north and south of the river. The design of the undercrossings shall be approved by the USFWS.	Less than significant
	MM4.9-5g: Exclusion fencing of the material and design described in MM 4.9-5c shall be installed on the north side of the haul road to Borrow/Stockpile Area A. The fencing shall be installed prior to initial project construction and shall be removed when initial project construction is complete, and the haul road is	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	no longer in use. The exclusion fencing shall be re-installed prior to the use of Borrow/Stockpile Area A, which begins again in approximately year 25. The fencing shall be removed once the landfill is completely closed and the haul road is no longer in use.	
	MM 4.9-5h: A minimum of three surveys shall be conducted by a biologist permitted by the USFWS to handle the arroyo southwestern toad following installation and re-installation of the exclusion fencing along the access road to Borrow/Stockpile Area A prior to its use. Up to three additional surveys shall be conducted during the use period if favorable temperature and moisture conditions for toad movement have not already occurred during the three original surveys. Any toads found shall be relocated to appropriate similar habitat outside project impact areas and in dedicated open space.	Less than significant
	MM 4.9-5i: Exclusion fencing of the material and design described in MM 4.9-5c shall be installed along both sides of the low-flow crossing until the road connects with the haul road described in MM 4.9-5g. The fencing shall be installed during initial project construction and shall be removed when initial project construction is complete, and the crossing is no longer in use. A minimum of three surveys shall be conducted by a biologist permitted by the USFWS to handle the arroyo southwestern toad following installation of the fencing, and daily surveys shall be conducted each morning prior to use of the low-flow crossing. Any toads found shall be relocated to appropriate similar habitat outside project impact areas and in dedicated open space.	Less than significant
Impact 4.9-6: *Direct loss of individual toads could occur in association with proposed landfill project mitigation measures to create, restore and/or enhance riparian habitats and riparian/upland transition habitats on the landfill site as described in MM 4.9-18.*	**MM 4.9-6:** The USFWS (1999c) has indicated in the Final Recovery Plan for the species that short-term negative effects to individual toads from such activities may be offset by the long-term positive effects of implementing such a habitat enhancement program. Therefore, the habitat enhancement plan described in MM 4.9-18 shall be implemented. The final plan shall include precautions where possible to avoid impacts to the arroyo southwestern toad.	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Impact 4.9-7: *Riprap associated with the access road bridge could harbor potential predators of the arroyo toad. This impact would be significant.*	**MM 4.9-7:** Prior to final design, the bridge abutment design specifications shall indicate that gaps in the riprap be filled with concrete.	Less than significant
Impact 4.9-8: *If the northernmost SDG&E transmission tower is replaced during the critical breeding period of the golden eagle (December through May) this would be a significant impact.*	**MM 4.9-8:** The northernmost tower shall be replaced during the period of July through October to avoid the golden eagle breeding season.	Less than significant
Impact 4.9-9: *Abandonment of the golden eagle nest site and territory, should it occur due to the project, would be a significant impact.*	**MM 4.9-9a:** Access to the Gregory Canyon nesting site(s) shall be restricted to eagle specialists and researchers conducting monitoring.	Less than significant
	MM 4.9-9b: Prior to ground disturbance, a pre-construction survey for the eagle pair shall be conducted to determine if and where the eagles are nesting on site. Weekly monitoring of the eagle pair shall be conducted by an eagle specialist during the breeding season (December through May) to confirm the eagle pair is exhibiting reproductive behavior patterns, such as nest building. After one year of construction activity, if the monitoring determines that the eagles have abandoned the site, the applicant shall create a habitat acquisition fund for purchase and preservation of off-site known or potential golden eagle nesting habitat or shall purchase an equivalent amount of golden eagle nesting habitat to be included in the MSCP Preserve. The amount of funding or habitat purchase shall be negotiated with the County.	Less than significant
	MM 4.9-9c: Initial landfill construction activity less than 2,000 feet from the eagle's nest shall begin as close to the end of the eagle breeding season in June, to allow the eagle pair on site to become conditioned to the activity prior to the next breeding season starting in December.	Less than significant
Impact 4.9-10: *Movement of the southernmost SDG&E tower proposed for relocation while the red-tailed hawk nest is active (likely between December and May) would not be allowed under the Migratory Bird Treaty Act. Likewise,*	**MM 4.9-10:** The southernmost tower shall be moved during the period of June through November or at any time when the nest is not active. Likewise, any raptor nest removal shall only occur when the nest is inactive. A qualified biologist shall determine	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
removal of any raptor nest while it is active would not be allowed under the act.	whether or not a raptor nest is active.	
Impact 4.9-11: *Direct impacts to least Bell's vireo and southwestern willow flycatcher habitat including 0.8 acres of southern willow scrub or disturbed southern willow scrub would be significant.*	**MM 4.9-11a:** Removal of any riparian habitat shall only occur from October through December to avoid the breeding seasons of these bird species and to minimize potential impacts to the arroyo southwestern toad.	Less than significant
	MM 4.9-11b: Impacts to vireo and flycatcher habitat shall be mitigated through riparian habitat creation as described under MM 4.9-1d. The Wetland Mitigation and Habitat Enhancement Plan described under MM 4.9-18 would also benefit these species.	Less than significant
	MM 4.9-11c: The project applicant shall provide funding for cowbird trapping along the San Luis Rey River on the project site for a period of five years from initial landfill operation.	Less than significant
Impact 4.9-12: *Initial construction, including the use of the low-flow crossing, and bridge construction could produce short-term construction noise that would potentially exceed the 60 dB(A) L_{eq} threshold during the vireo breeding season (March 15th through September 15th) and the southwestern willow flycatcher breeding season (late April through mid-September) resulting in a significant noise impact.*	**MM 4.9-12a:** Daily noise monitoring by a qualified acoustician shall be conducted between March 15 and September 15 during initial construction to verify that noise levels are below 60 dB(A) L_{eq} in vireo and flycatcher habitat. If the 60 dB(A) L_{eq} is exceeded, the acoustician shall work with the construction contractor to make operational changes and/or barriers designed by the acoustician shall be installed prior to March 15, or immediately if during the breeding season, to reduce noise levels during the breeding season. Weekly noise monitoring shall occur following operational changes and/or installation of barriers to ensure their effectiveness. If ineffective, the acoustician shall work with the construction contractor to make additional operational changes or to install other barriers that would reduce noise to less than 60 dB(A) L_{eq}.	Less than significant
	MM 4.9-12b: The low-flow crossing shall only be used between September 15th and March 15th. Use of the crossing could occur outside of that time period if daily monitoring by a qualified biologist determines that vireos and flycatchers have not yet arrived on site or have migrated out of the area early, or if operational changes can be made and/or barriers designed by an	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	acoustician can be installed prior to March 15 to reduce noise levels to less than 60 dB(A) L_{eq} in the vireo and flycatcher habitat. Daily noise monitoring shall be conducted in accordance with MM 4.9-12a and noise reduction measures contained in MM 4.9-12a shall be implemented, if necessary.	
	MM 4.9-12c: Bridge construction shall only occur between September 15 and March 15 unless daily monitoring by a biologist during the breeding season determines that vireos and flycatchers have not yet arrived on site or have migrated out of the area early or if operational changes can be made and/or barriers designed by an acoustician can be installed prior to March 15 to reduce noise levels to less than 60 dB(A) L_{eq} in vireo and flycatcher habitat. Daily noise monitoring shall be conducted in accordance with MM 4.9-12a and noise reduction measures contained in MM 4.9-12a shall be implemented, if necessary.	Less than significant
Impact 4.9-13: *Implementation of the riparian habitat creation and restoration and/or enhancement program (required as mitigation to offset direct impacts to the least Bell's vireo and southwestern willow flycatcher) could significantly impact these species through excessive equipment noise if installation occurs during their breeding seasons.*	**MM 4.9-13:** Mitigation activities shall only occur between September 15 and March 15 unless operational changes can be made and/or barriers designed by an acoustician can be installed prior to March 15 to reduce noise levels to less than 60 dB(A) L_{eq} in vireo and flycatcher habitat. Daily noise monitoring shall be conducted between March 15 and September 15 to verify that the measures are effective. If the 60 dB(A) L_{eq} is exceeded, the acoustician shall work with the contractor to make additional operational changes or to install additional barriers that would reduce noise to less than 60 dB(A) L_{eq}.	Less than significant
Impact 4.9-14: *A total of 20.0 acres of vireo and flycatcher habitat would be significantly impacted by traffic noise caused by the project.*	**MM 4.9-14**: Indirect impacts to a total of 20.0 acres of vireo and flycatcher habitat caused by project traffic noise shall be mitigated through on-site creation or enhancement of 17.1 acres of vireo and flycatcher habitat, and the off-site acquisition of 2.9 acres of vireo and flycatcher habitat. On-site and off-site mitigation areas would not be affected by noise levels of 60 dB (A) Leq or greater as a result of project-generated or cumulative traffic. Any on-site creation or enhancement shall be in area dedicated as open space. Any off-site acquisition may occur anywhere within the	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	unincorporated area of San Diego County and a conservation easement shall be placed across the area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or mitigation credits from a habitat manager, mitigation bank or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with construction that impacts vireo or flycatcher habitat or as otherwise determined in consultation with the resource agencies.	
Impact 4.9-15: *Noise produced by landfill equipment operating at the closest point to vireo and flycatcher habitat within the landfill footprint and Borrow/Stockpile Area A (approximately 520 feet away) would potentially create noise levels in excess of 60 dB(A) L_{eq} in that habitat, resulting in a significant impact during the vireo and flycatcher breeding seasons.*	**MM 4.9-15a:** A temporary 12-foot-high wall or berm shall be constructed along the northern edge of Borrow/Stockpile Area A outside the vireo/flycatcher breeding season (March 15 to September 15) and prior to the use of Borrow/Stockpile Area A. The barrier can be removed once topography provides the necessary noise barrier to reduce noise levels in the habitat during the breeding seasons to less than 60 dB(A) L_{eq}.	Less than significant
	MM 4.9-15b: Noise monitoring shall be conducted weekly for up to one month by a qualified acoustician to verify that operational noise levels are below 60 dB(A) L_{eq} in vireo and flycatcher habitat. If noise levels equal or exceed 60 dB(A) L_{eq}, a 16-foot-high permanent noise wall shall be installed prior to the vireo breeding season (March 15th to September 15th, includes flycatcher breeding season) or immediately if during the breeding season. If noise levels exceed 60 dB(A) L_{eq} during the breeding season, operational changes shall be made to reduce noise levels to less than 60 dB(A) while the noise wall is being constructed. The noise wall shall be constructed east of the knoll between the internal haul road and the top of slope for the facilities area to block truck noise emanating into the habitat.	Less than significant
Impact 4.9-16: *Potential impacts from vegetation trampling and/or trail creation would be significant because of the edge*	**MM 4.9-16:** Throughout the life of the project, access routes shall be restricted to existing roads, and entry into non-impact	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
effects these activities could create.	areas shall be restricted by the landfill operator. Areas not directly impacted by the project shall be posted with signs precluding access due to habitat sensitivity. A public education program shall be developed by a qualified biologist and shall be implemented to inform landfill staff and visitors about access restrictions and the sensitivity of habitats on site.	
Impact 4.9-17: *The potential for non-native plant species invasion would be significant for the area of channel excavation associated with construction of the bridge and for temporary and permanent slopes.*	**MM 4.9-17a:** Control of invasive, exotic plant species shall occur as described in the habitat enhancement plan presented in MM 4.9-18 and shall include the channel excavation area associated with construction of the bridge.	Less than significant
	MM 4.9-17b: Temporary and permanent slopes shall be revegetated with native species to inhibit the growth of non-natives.	Less than significant
Impact 4.9-18: *Loss of habitats, habitat fragmentation, decreased water quality, night lighting, human activity, and the introduction of non-native plant species are cumulatively significant impacts to which the project would contribute. In addition, during the life of the landfill, cumulatively significant indirect traffic noise impacts that could affect the breeding success of endangered bird species inhabiting this portion of the river could occur. Finally, landfill operations and cell construction could be on-going throughout the Pipeline No. 6 construction period and could lead to periodic cumulative impacts.*	**MM 4.9-18:** The project applicant shall implement a habitat enhancement plan to improve the San Luis Rey River watershed on site as described below and within the enhancement area shown in Exhibit 4.9-6 of the Revised Final EIR in accordance with the Wetland Mitigation and Habitat Enhancement Plan set forth in Appendix L, as updated and modified. Beyond the mitigation obligation associated with compensating for direct and indirect project impacts to vegetation communities, the project applicant for the Gregory Canyon Landfill shall be required to implement a habitat enhancement program for improvements to the San Luis Rey River watershed. In addition to the proposed open space dedication (1,313 acres), the project applicant shall create or enhance 131.4 acres of upland areas and 81.2 acres of riparian areas within the portion of the San Luis Rey River corridor contained on site (Exhibit 4.9-6). The restoration would likely be phased and would not occur all at one time. The habitat enhancement program shall focus on the restoration of riparian and upland habitats within the San Luis Rey River floodplain on site, in the areas indicated on Exhibit 4.9-6, above and beyond the project's direct mitigation obligations for	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	vegetation community impacts. The San Luis Rey River has been identified as one of the most easily restorable rivers in southern California (ACOE 1981). This portion of the program shall consist of the restoration of lost and/or damaged habitat and water quality caused by the long-term agricultural use of the property and the removal of highly invasive, exotic plant species. The project applicant is proposing to remove the existing Verboom dairy operations and most structures and all equipment associated with the Verboom and Lucio dairies from the site in concert with the initial construction of the landfill. Under this enhancement program, man-made berms and weed seed banks in the river's watershed shall be excavated to restore more historic river flows and invasive, non-native plant species would be replaced with native plantings. The excavation shall be focused on bringing the ground elevations down to a level that would connect the areas hydrologically with the existing groundwater system and to create a series of terraces that taper into the existing upland habitat. The excavation would be done in a manner that would prevent adverse effects on upstream and downstream properties. All upland and drier riparian areas shall be planted with tree species known from the site and hand-seeded to initiate native plant re-establishment. Weed control and monitoring shall be implemented regularly during the first five years of the project to prevent the re-establishment of non-native plant species. The goal of the restoration shall be to provide breeding and upland habitat for endangered species and widen the vegetative buffer around the riparian corridor present on site. The dedicated open space on-site, including the restored river corridor, shall be managed with a financial contribution provided by the project applicant. The project applicant shall work with the USFWS and the CDFG to identify a qualified conservancy or other non-profit organization to be responsible for implementing long-term management activities for the restored river. The type of management activities shall depend upon the condition of the site, the resources present, and the funds available to manage	

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	those resources. Management activities shall include restriction of vehicular and human access through the installation of fencing and signs, control of exotic species [e.g., brown-headed cowbirds and giant reed (Arundo donax)], control of illegal dumping and monitoring endangered species populations. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to on-site dedicated open space, or created or enhanced habitat areas.	
Impact 4.9-20: *Improvements at the Reservoir Site could result in impacts to the coastal California gnatcatcher if the improvements were to occur during the breeding season (February 15 through August 31).*	**MM 4.9-20:** If project construction activities for the improvements at the Olivenhain Reservoir Site are scheduled to occur during the breeding season for coastal California gnatcatcher (February 15 through August 31), three surveys pursuant to U.S. Fish and Wildlife Service protocol shall be conducted to determine the presence or absence of the species in coastal sage scrub habitat within 500 feet of the improvement. If it is determined that the species is absent, construction may proceed without restrictions. If the coastal California gnatcatcher is present within 500 feet of the improvement, no construction activities shall be allowed between February 15 and August 31, unless shielding is used to reduce construction noise levels to less than 60 dBA Leq at the species' habitat. Shielding shall be approved by a qualified acoustician. No coastal California gnatcatcher-related restrictions will be placed on construction activities outside of the coastal California gnatcatcher breeding season.	Less than significant
	4.10 PALEONTOLOGICAL RESOURCES	
[No change is made to this section.]		
	4.11 ARCHEOLOGICAL AND CULTURAL RESOURCES	
[No change is made to the mitigation measures in the 2003 Draft EIR. A new potential impact is disclosed and is shown in underline.]		

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Impact 4.11-7: *The project would significantly impact Gregory Mountain and Medicine Rock as Native American cultural resources, historic resources, and ethnohistoric resources.*	See Mitigation Measures 4.12-1a through 4.12-1e	Significant
	4.12 ETHNOHISTORY AND NATIVE AMERICAN INTERESTS	
This is a Proposition C mitigation measure	**MM 4.12.C5P** Impacts to Native American resources impacted by the Project shall be mitigated through the development of a Memorandum of Agreement between the Applicant and the appropriate regulatory agencies in accordance with Section 106 of the National Historic Preservation Act.[1] To mitigate archaeological impacts caused by the Project, the Applicant shall retain a qualified archaeologist to investigate and recommend appropriate mitigation measures. These mitigation measures shall be implemented by the Applicant.	This is a Proposition C mitigation measure
Impact 4.12-1: *The project would significantly impact Gregory Mountain and Medicine Rock as Native American cultural resources, historic resources, and ethnohistoric resources.*	**MM 4.12-1a:** Prior to commencement of operation of the landfill and as partial fulfillment of MM 4.1-2, the applicant shall either dedicate the portion of the site east of the landfill footprint and relocated SDG&E easement including the western slopes and the top of Gregory Mountain, as permanent open space or execute and convey a permanent open space easement over this area.	Significant
	MM 4.12-1b: Prior to commencement of operation of the landfill the applicant shall execute and record an access easement to the Pala Band of Mission Indians from the western boundary of the land owned by the Pala Band of Mission Indians to the summit of Gregory Mountain. The access easement shall grant the Pala Band of Mission Indians the right to walk or hike only within the access easement area.	Significant
	MM 4.12-1c: Should the Pala Band agree, the applicant shall, upon commencement of operation of the landfill, pay to the Pala Band of Mission Indians a fixed dollar amount as determined below. Such amount shall be used by the Pala Band to implement measures to enhance and improve access to Gregory mountain	Significant

[1] *Section 106 consultation under the NHPA, if and to the extent required, will occur with issuance of the nationwide permit.*

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	from the Pala Reservation. Such measures may include, but are not limited to, a new footpath, clearing of an existing footpath, or the marking of new footpath trail as determined by Pala in its sole discretion. Such dollar amount shall be equal to the estimated cost of restoring the footpath that previously existed from the eastern base of Gregory Mountain to the top of the mountain. This estimate shall be obtained by the applicant from a company experienced in restoring footpaths.	
	MM 4.12-1d: In addition to the construction of the trail, should the Pala Band agree, the applicant shall provide funding as needed for the annual maintenance of the trail from the eastern base to the top of the mountain during the operational life of the landfill.	Significant
	MM 4.12-1e: The applicant shall postpone landfilling activities on the western slope of Gregory Mountain above the existing San Diego Gas & Electric transmission line for as long as its practically possible.	Significant
Impact 4.12-2: *The project would create dust impacts to the areas of Medicine Rock and Gregory Mountain during high wind periods.*	**MM 4.12-2a:** The applicant shall apply water on access roads, storage piles, and cleared areas in greater intervals, such as every three hours, during high wind periods to reduce the dust generated by vehicles.	Less than significant
	MM 4.12-2b: The applicant shall install landscaping between the landfill operations and Medicine Rock to create a dust screen. The landscape screen shall include shrubs and trees, such as manzanita and ceanothus.	Less than significant
Impact 4.12-3: *The project would create short-term construction noise impacts at the ridgeline of Gregory Mountain during the relocation of the SDG&E transmission towers.*	**MM 4.12-3:** The applicant shall monitor noise levels at the ridgeline during the relocation of the SDG&E transmission towers. If noise levels exceed 62.5 dBA L_{eq} at the ridgeline, the applicant shall implement some or all of the following measures to reduce the noise levels to below 62.5 dBA L_{eq}: • Build temporary noise barriers or berms between construction activities and the ridgeline. Design parameters (e.g., height, length, and location) for these temporary noise barriers or	Less than significant

POTENTIAL IMPACTS	PROPOSITION C MEASURES AND PROJECT MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	berms shall be determined by a qualified noise expert. • Reduce the amount or size of construction equipment. For example, equipment with smaller engines could be used.	
	If the 62.5 dBA L_{eq} threshold is not exceeded, no action beyond monitoring shall be necessary.	
Impact 4.12-4: *The project would result in the loss of ethnobotanical resources associated with the coastal sage scrub, coast live oak woodland, native perennial grassland, cottonwood-willow riparian forest, southern willow scrub and mulefat habitats.*	**MM 4.12-4:** The project shall mitigate for the loss of ethnobotanical plants in southern willow scrub, mulefat scrub, cotton-willow riparian forest, and native perennial grassland by the creation of in-kind habitats on the landfill site that include ethnobotanical species listed in Appendix O. This revegetated habitat shall be incorporated into the Habitat Enhancement Plan and/or the dedicated open space areas. Before the mitigation plans for these areas are finalized, the Tribe would have the opportunity to provide input concerning the selection of specific ethnobotanical resources. In addition, the Tribe shall be given the opportunity to provide input regarding the location of the in-kind habitats to ensure that tribal members have adequate access to the areas.	Less than significant
	4.13 AESTHETICS	
[No change is made to this section.]		
	4.14 SOCIOECONOMICS	
[No change is made to this section.]		
	4.15 PUBLIC SERVICES AND UTILITIES	
[No change is made to this section.]		
	4.16 HUMAN HEALTH AND SAFETY	
[No change is made to this section.]		

3.0 PROJECT DESCRIPTION

This section contains the following revisions to the 2003 Draft EIR:

- *Revises the liner design to include a double composite liner system with an additional drainage layer and an additional HDPE geomembrane rather than the single composite liner originally described.*
- *Modifies the project description to include the use of recycled water by the project and recycled water facilities.*

[Changes to this section are underlined.]

3.2.4 REVISED LINER DESIGN AND ANCILLARY FACILITIES

Upon entering the ancillary facilities area, vehicles will pass through the fee booth and scales (Exhibit 3-8). The administrative office building will be located adjacent to the booths. The ancillary facilities area will also include an approximately 7,000 square foot maintenance building, which will be a tilt up concrete structure, approximately 30 feet in height. A diesel storage tank within a concrete containment wall will be located on the south side of the building for refueling of equipment. A portable emergency showerhead designated to contain rinse water[2] will also be provided outside the maintenance building.

The bedrock will be excavated no more than five feet above the highest anticipated groundwater elevation. The liner design for the project includes a double composite liner system with an additional drainage layer and an additional HDPE geomembrane. The containment layers will now include the use of one 80-mil flexible membrane component, a synthetic clay component, two 60-mil flexible membrane components, and a 2 foot compacted natural clay component. In addition, the liner system will include the leachate collection and removal system, secondary leak detection and leachate removal system, and an underdrain system. Exhibit 3.8b provides a detailed cross-section of the proposed composite liner system for the project. Liner construction will be monitored under extensive Construction Quality Assurance (CQA) guidelines and Best Management Practices (BMPs) will be followed. This supercedes and replaces the description of the composite liner contained in section 3.2.1 of the 2003 Draft EIR.

A recyclable drop-off area is proposed on the east side of the maintenance building. The recyclable area will have bins for drop-off of source separated recyclable material, such as newsprint, white paper, tin, aluminum and glass.

Hazardous materials will be prohibited at the Gregory Canyon Landfill. However, a hazardous materials storage area, located in the southeast portion of the ancillary facilities area, will be maintained for use if such materials are found in loads coming to the landfill. A full time spotter

[2] *The wastewater from the shower will be disposed of off-site at a hazardous waste facility or taken to a wastewater treatment plant, depending on the nature of the contaminant.*

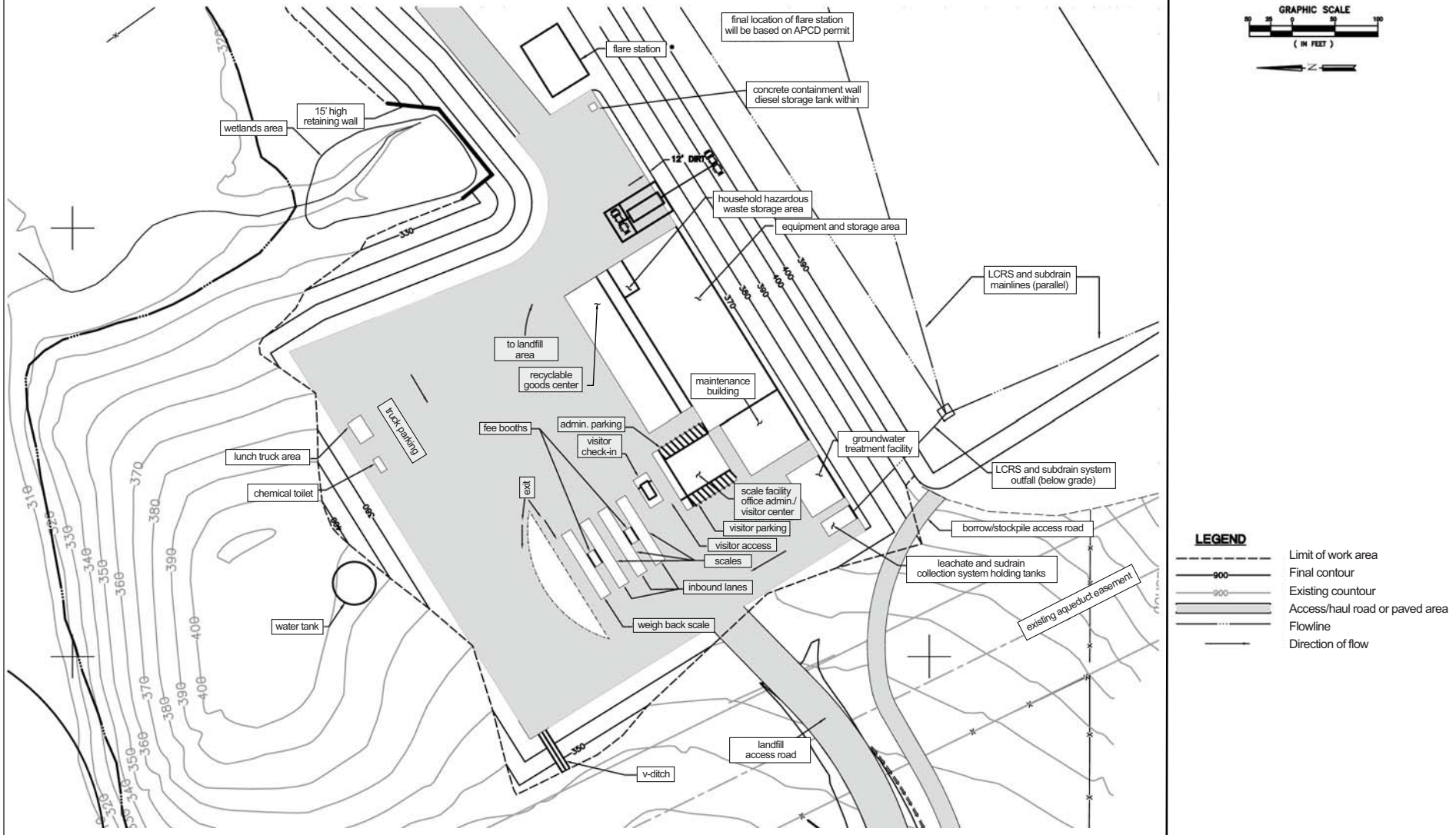


Exhibit 3-8
Site Facilities Plan

Source: Bryan A. Stirrat & Associates, 2006

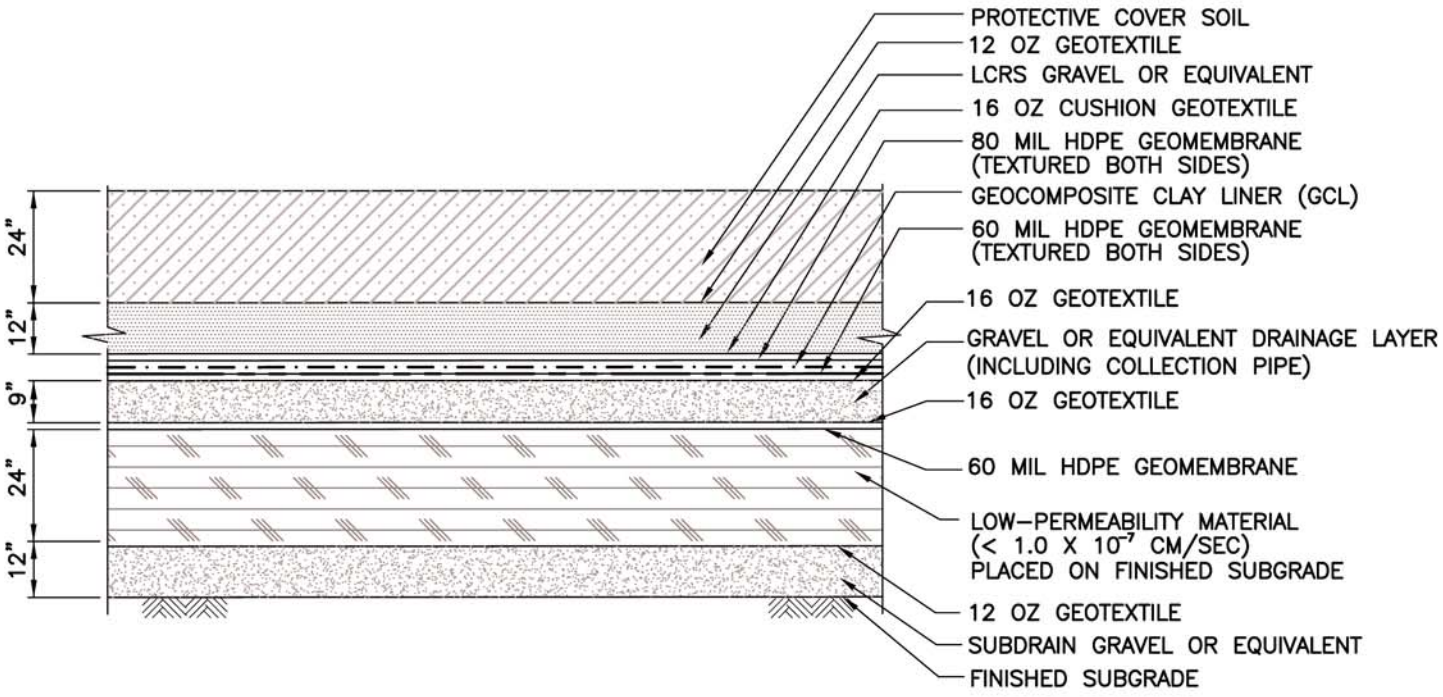


Exhibit 3-8b
Bottom Liner Section

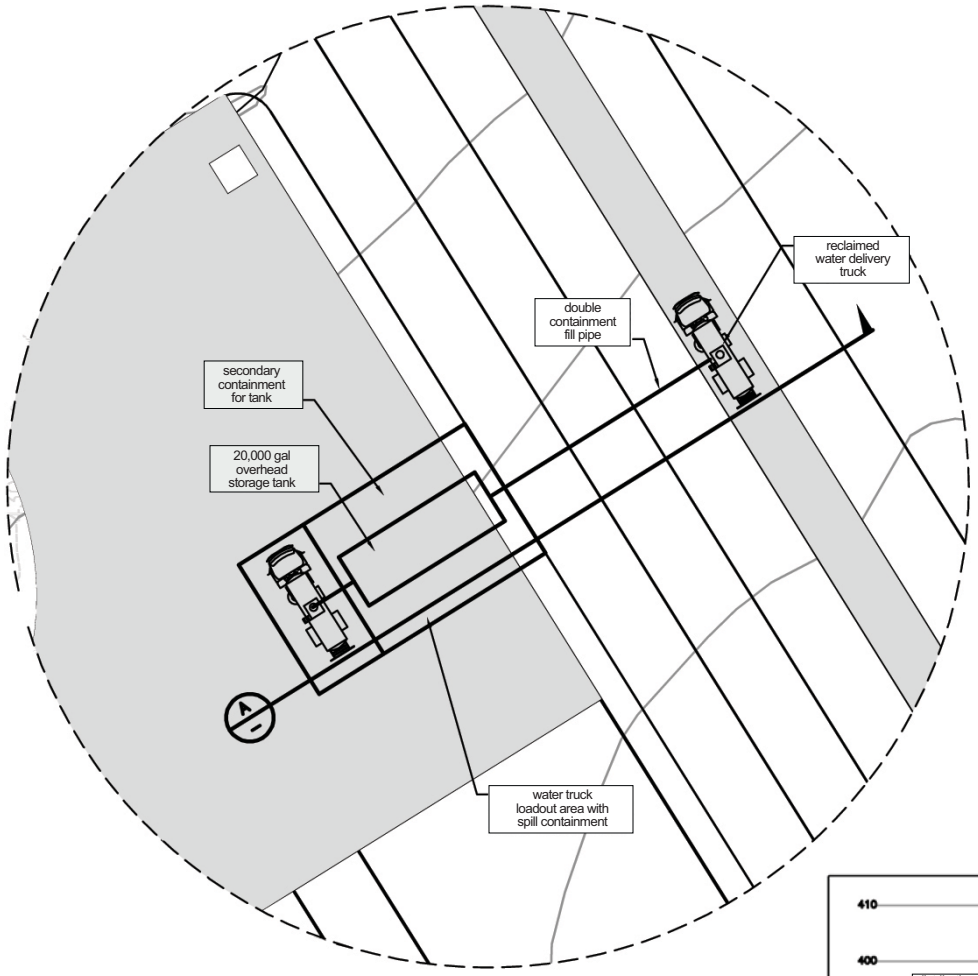
Source: Bryan A. Stirrat & Associates, 2006

will observe unloaded activities during all refuse hours of operation. The load checking program is discussed in Section 3.4.4.

Two 10,000-gallon leachate holding tanks and one 10,000-gallon subdrain water tank will be located in the southwestern corner of the ancillary facilities area. A 20,000 gallon water tank will be located just north of the paved area. The water tank will be supplied from bedrock wells located on the project site. The project includes the use of recycled water that will be trucked to the project site from the Olivenhain Municipal Water District (Olivenhain) Santa Fe Valley Reservoir and Pump Station site near the intersection of Artesian Road and Maranatha Drive west of I-15. In order to provide adequate water truck access to Olivenhain Municipal Water District's site, approximately 1,000 feet of 24 foot wide asphalt roadway will be constructed around Olivenhain's blending reservoir. A concrete loading pad will be installed on the site with water handling facilities that include a 6 inch meter to fill the trucks. At the facilities area on the project site, a double containment fill pipe will be extended over the facilities access area road that will connect to a 20,000 gallon overhead storage tank that includes a secondary containment area constructed of impervious materials that will accommodate the entire volume in the tank to avoid the spillage of recycled water on site. The location and a schematic of this containment area is shown in Exhibit 3.8c. The fill pipe will be used to drain recycled water trucks to the storage tank. The storage tank will contain a distribution fill pipe permitting the filling of trucks as needed for use on site. This tank will be designated solely for storage of recycled water. The site will comply with a General Permit to Discharge Stormwater Associated with Industrial Activities (see Section 3.8.4). A Notice of Intent (NOI) for industrial activities will be submitted to the RWQCB concurrently with the application to obtain WDRs for the project. Within the ancillary facilities area the project will implement dry management controls of sediment (i.e., sweeping) as well as the use of absorbents for oil and gas releases. The project will also include a storm drain inlet or outflow device from the ancillary facilities area (e.g., oil-water separators or other filtering devices required by the County stormwater discharge requirements) to protect surface water quality. A 50 gallon per minute (gpm) reverse osmosis (RO) system will be installed in the southwestern portion of the ancillary facilities area as stipulated in an agreement with the San Luis Rey Municipal Water District and the applicant (Appendix C). As indicated in Section 3.5.2.3, the RO system will provide a groundwater treatment facility for use in the event that groundwater impacts are identified and could also be used to treat recycled water to remove contaminants. Please see Section 3.5.2.3 for further discussion of the RO system.

Electricity will be used in the ancillary facilities area for the scales, buildings and lighting. Telephone service will be provided within the offices in the facilities area and at each of the fee booths for computer links with truck scales. Electrical and telephone utility connections will be underground in the access road from SR 76 to the facilities area. Water will be used for various activities on site, including dust suppression. The primary source of water for the project will be recycled water purchased from Olivenhain. A second source of water for the project is percolating groundwater derived from bedrock wells located on the project site. Please see Section 4.15.3 for a more detailed discussion of water service and facilities for the project. Bottled drinking water will be provided in the facilities area.[3] A portable chemical toilet will be

[3] *If groundwater were to be used for potable water in the future, environmental review and permits would be completed and obtained, as necessary.*



PLAN
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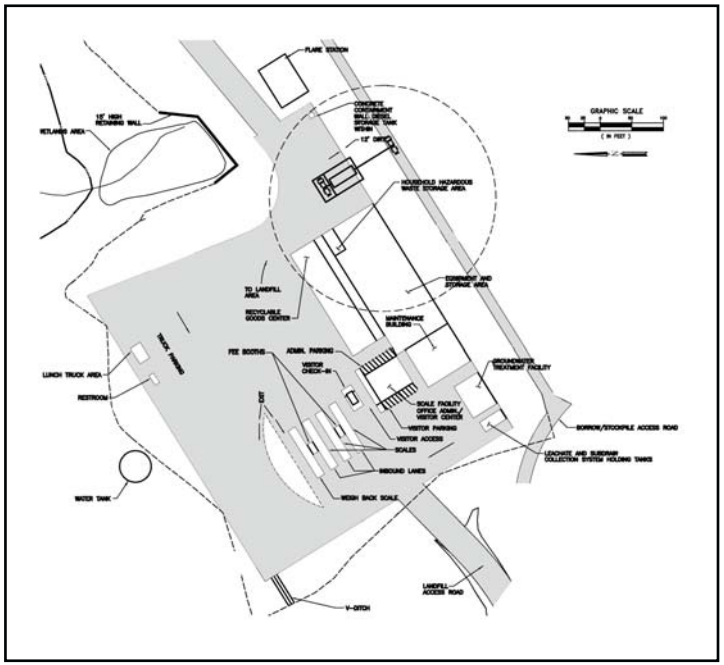
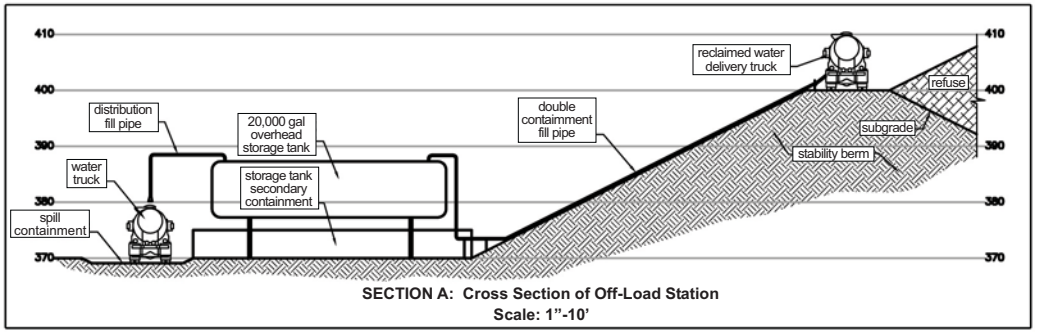




SECTION A: Cross Section of Off-Load Station
Scale: 1"-10'

Exhibit 3-8c
Reclaimed Water Off-Load Station within Ancillary Facilities Area

Sources: Bryan A. Stirrat & Associates, 2006

located at the northern end of the ancillary facilities area.[4] The applicant will contract with a sewage disposal service to remove effluent from the chemical toilets for off-site treatment and disposal.

Security lighting will be provided around the buildings in the ancillary facilities area. Lighting will be low impact, focused, and shielded to minimize spill light into the night sky or adjacent properties. All lighting will comply with the County Light Pollution Code.

A facility identification sign will be located at the entrance gate at SR 76. The sign will provide information on the facility operator, hours of operation, and recognized holidays. Signs will be located on the scalehouse indicating the schedule of charges and the general types of waste materials that will not be accepted at the site. Additionally, posted signs will direct drivers to the refuse unloading and recycling collection areas. Other posted signs will display site safety and traffic rules.

[4] *If permanent restroom facilities with an on-site septic system were to be installed in the future, approval of a percolation test by DEH will be required. However, this is not proposed as a component of the project.*

4.1 LAND USE AND RELATED PLANNING

This section contains the following revisions to the 2003 Draft EIR:

- *Discusses the new Countywide Siting Element adopted by the California Integrated Waste Management Board on September 21, 2005 and project consistency with this new Siting Element.*

[Changes to this section are underlined.]

This section addresses land use and related planning issues. In addition, this section contains a summary of the General Plan Consistency analysis prepared by David Evans and Associates, Inc. (2000), which is contained in Appendix E of the 2003 Draft EIR. On September 21, 2005 the California Integrated Waste Management Board ("CIWMB") approved a new Countywide Siting Element for San Diego County. This new Siting Element and project consistency with the new Siting Element is discussed in Section 4.1.3.9 of this Revised Final EIR.

4.1.1 EXISTING SETTING

4.1.3.9 2005 COUNTYWIDE SITING ELEMENT

[All of this section is new]

State solid waste law requires that countywide Siting Elements be updated every five years. The California Integrated Waste Management Board (CIWMB) approved the Countywide Integrated Waste Management Plan (CIWMP) for the County of San Diego on February 12, 1997. Review and revisions to the adopted Siting Element began in 2002. In 2005 a majority of the cities and the County Board of Supervisors adopted a new Countywide Siting Element for San Diego County. This was approved by the CIWMB on September 21, 2005. This new Siting Element replaces the Siting Element adopted for the County as part of the approved 1997 solid waste plan. The approved Countywide Siting Element adopted in 2005 is available at http://www.sdcdpw.org/siting, and is incorporated by reference.

State solid waste law and regulations require that a Siting Element demonstrate there is a countywide or region-wide minimum of 15 years of combined disposal capacity through existing or planned solid waste disposal and transformation facilities or through additional strategies. (14 CCR §18755(a)). Permitted capacity is based upon disposal limits shown on the solid waste permits that have been issued and not physical capacity. The purpose of the Siting Element is to assist local governments and private industry in planning for integrated waste management and the siting of solid waste disposal facilities. The Siting Element must demonstrate that 15 years of countywide or regional solid waste disposal capacity can be achieved based upon the requirements of state solid waste law as provided in Public Resources Code Section 41701.

Solid waste disposal rates for San Diego County have increased over those originally projected in the 1997 Siting Element. The 1997 Siting Element estimated that the 2001 generation rate for the region would be 5.3 million tons and the disposal amount would be 2.6 million tons. The

2001 actual generation amount was calculated to be 6.9 million tons and solid waste disposal was 3.7 million tons, 1.1 million tons more than projected in the 1997 Siting Element. Consequently, during this period solid waste generated in the region increased faster than projected.

In 2005, the San Diego region generated 8.2 million tons of solid waste. Based upon an estimated diversion rate of 50%, 3.8 million tons of solid waste were deposited in County landfills in 2005. (Siting Element p. SE-9). Solid waste disposal is predicted to increase from 3.7 million tons in 2002 to 6.1 million tons in the year 2017. (Siting Element p. SE-8). It is estimated the San Diego County jurisdictions will need to accommodate disposal capacity for over 5.6 million tons of solid waste by the year 2017. (*Id.* pp. 8, 9).

The rate at which materials may enter landfills is restricted by annual and/or daily traffic and tonnage limits at disposal and transfer facilities, even where there may be sufficient physical capacity. The permitted daily and annual disposal tonnages are specified in the solid waste facility permit issued for each disposal facility. Using current disposal projections, if the permitted limits on the rates at which waste enter County landfills are not changed, the San Diego region will run out of the ability to accept all of the waste destined for disposal by the year 2007. (Siting Element p. SE-12). The Siting Element has determined that this shortfall can be avoided by the combined opening of the Gregory Canyon landfill and planned expansions to the existing Sycamore Canyon landfill by 535,000 tons in 2005 and 2.7 million tons in 2011. The Siting Element indicates that the opening of the Gregory Canyon landfill and the planned expansion of the Sycamore Canyon landfill would probably be adequate to meet the 15 years of permitted capacity requirement with the implementation of several additional diversion strategies discussed in the Siting Element. (*Id.* p. SE-12). Accordingly, the opening of the Gregory Canyon landfill and the further expansion of the Sycamore Canyon landfill are viewed as important components of the County's ability to achieve the 15 years of waste disposal capacity required by state solid waste law.

The Gregory Canyon landfill was designated as a tentatively reserved landfill site in the approved 1997 Siting Element. The 2005 update of the Siting Element now designates the Gregory Canyon landfill as a reserved or proposed landfill site. This change reflects the fact that the County has found the project in compliance with its general plan, thereby removing the tentatively reserved designation. The Gregory Canyon landfill is the only new landfill proposed in the updated Siting Element. The East Otay Mesa site tentatively reserved as a landfill site in the 1997 Siting Element has now been removed leaving no tentatively reserved disposal sites in the recent update of this element.

The Siting criteria contained in the 1997 Siting Element have now been revised and are no longer applicable. The new siting criteria are contained in chapter 5 of the 2005 Siting Element. The update notes that the siting criteria is to be used to assess new candidate landfill sites. (Siting Element p. SE-34). The siting criteria state that "if future candidate sites don't pass the criteria, a jurisdiction may choose to drop the site from further consideration, unless potential environmental impacts can be mitigated and/or overriding considerations prevail." (*Id.* SE-34).

While siting criteria contained in the updated element apply to future candidate sites, they do not apply to existing or proposed landfills contained in the adopted Siting Element. Since the

Gregory Canyon landfill has been designated as a proposed site in this element, it is not subject to the new siting criteria.

Project Consistency With Updated Siting Element

The project is consistent with the newly adopted Siting Element. The project has been designated as a proposed disposal facility in the updated element. (Siting Element SE-42 thru 46). The element projects that the project will have a site life expectancy of 30 years and a permitted remaining capacity of 33.4 million tons. (*Id.* p. SE-44). No other landfills or disposal facilities have been designated as proposed or tentatively reserved sites in the Siting Element.

The Siting Element identifies the Gregory Canyon landfill and the proposed expansion of Sycamore Canyon landfill as key strategies to achieve the 15 years of waste disposal capacity required by state law. As of the year 2006, existing disposal sites in the County are capable of accommodating 4.1 million tons of waste per year. (Siting Element p. SE-13). Based upon an assumed diversion rate of 50%, this existing permitted capacity will be exhausted by the year 2007 (*Id.*). The Siting Element concludes that if Gregory Canyon landfill and the expansion of Sycamore Canyon landfill are not approved without using other strategies, the San Diego region may need to export up to 55% of its waste in 2017. (*Id.* p. SE-51). The project is consistent with the updated Siting Element, since it is designated as a disposal site in the element and is identified as one of the key strategies to achieve the 15 years of waste disposal capacity required by state solid waste law.

4.5 TRAFFIC AND CIRCULATION

This section contains the following revisions to the 2003 Draft EIR:

- *Evaluates existing and cumulative traffic conditions based upon a new traffic study completed by Darnell & Associates and evaluates traffic information contained in the March 2003 Tribal Traffic Study.*
- *Provides a traffic analysis for transport of recycled water from the Olivenhain Reservoir Site to the landfill site.*

[Changes to this section are underlined]

The following analysis summarizes the traffic study prepared by Darnell & Associates, Inc. in 2006 (revised 2007) re-evaluating the traffic-related impacts of the proposed Gregory Canyon landfill and cumulative traffic conditions. This updated traffic report is included as Appendix A to this Revised Final EIR.

4.5.1 EXISTING SETTING

[No changes made this section.]

4.5.1.1 Existing Roadway Characteristics

[All of this section is new.]

State Route 76 (SR 76 or Pala Road) is a regional transportation facility extending from Interstate 5 (I-5) in Oceanside to its eastern terminus at State Route 79 (SR 79) near Lake Henshaw. East of I-15, SR 76 is a two-lane facility. In the project vicinity, SR 76 transverses along flat terrain north of the San Luis Rey River flood plain. A vertical grade profile between I-15 and the site access, conducted by placing a level on the centerline approximately ¼ to ½ mile apart, indicates that grades are less than 2%. The steepest grade is 1.4% between Couser and Rice Canyon Roads.

Through the project study area, the roadway is characterized by two tight curve radii and slight grades. Tight turns are indicated by advisory speed limit signs. In the vicinity of the project access, SR 76 provides two 11-foot travel lanes with 5 feet of paved shoulder on each side divided by a painted double yellow line.

Truck percentage data were collected for a 24-hour period. The combined average for east and westbound traffic for trucks with 3 or more axles is 21% of the total combined eastbound and westbound traffic for all vehicles. (This percentage is used in all traffic analyses with 2005 traffic counts.)

The SR 76/I-15 diamond interchange is signalized for Northbound and Southbound access to I-15, as well as at Old Highway 395. The SR 76 over-crossing is two travel lanes with a painted center median and left turn pockets at the I-15 onramps. Four lanes of travel are available

between the southbound ramp and Old Highway 395, transitioning to one lane in each direction west of Old Highway 395. Highway 395 is a north-south transportation facility that parallels I-15 and intersects with SR 76. Highway 395 is currently a two-lane facility that is posted at 55 mph and separated with a painted double yellow divider.

I-15 is a major freeway with four existing travel lanes in each direction. Caltrans is currently constructing major improvements to I-15 that will include the addition of managed lanes and interchange ramps at Camino del Norte.

Camino del Norte is a prime arterial that is currently being upgraded to 6-lane prime arterial standards. Camino del Norte is signalized at the northbound and southbound I-15 onramps, Bernardo Center Drive and eastbound and westbound Camino San Bernardo. Camino del Norte transitions into Camino del Sur, a major arterial, which is currently being upgraded to 4-lane major arterial standards.

Maranatha Drive is a 2-lane road, which is currently being upgraded to include a 40-foot paved width with 60 feet of right-of-way.

4.5.1.2 Existing Segment Volumes and Intersections

[All of this section is new.]

24-hour count data were collected in March 2005. Peak hour counts on SR 76 were developed using the daily counts which are summarized by hour.

Peak hourly turning movement counts were taken in March 2005 at each of the following intersections:

- SR 76/Highway 395
- SR 76/I-15 northbound on/off (including ramps)
- SR 76/I-15 southbound on/off (including ramps)

Due to the high volume of trucked traffic (21% detailed above), the traffic analysis evaluated the effect of heavy vehicles on street systems. The Highway Capacity Manual (HCM) is a regionally accepted manual for determining the proper methodology to assess traffic impacts. The effect of heavy trucks can be evidenced on roadways with specific grades which may cause the truck to slow down more than a passenger car. To assess the relative passenger car equivalent (PCE) of a slow moving truck on an uphill grade, the HCM provides a matrix for rural highways which utilizes both specific grade percentages and average speeds.

To estimate the vertical grade of SR-76, a level was placed on the centerline of the highway approximately one quarter to one half mile apart. Along this segment, SR-76 does not exhibit or sustain grades greater than 2% and can therefore be considered a “level” roadway for the purposes of the traffic analysis.

A speed survey was conducted by Darnell & Associates to establish current average speed through the state highway segments between I-15 and the project site. Four locations were surveyed, including in front of the proposed project access, east of the 20 mph curve, west of the 20 mph curve, and near Pankey Road. This selection of survey locations provided for both the fastest and slowest portions of SR-76. The speed on the four segments was averaged to provide the speed variable for the PCE equivalent. The average speed on SR-76 was 37.85 mph. Discounting the highest average speed and the lowest average speed from this formula results in an average speed of 37.3 mph. Table 8-9 of the Highway Capacity Manual (HCM) was then utilized to determine an appropriate passenger car equivalent conversion factor based upon the speed survey and grades documented by Darnell & Associates. With the speed and grades documented on SR-76, Table 8-9 of the Highway Capacity Manual provides a passenger car equivalent conversion factor of 1.3. This figure means one truck is equivalent to 1.3 passenger cars on SR-76. For the purposes of the traffic analysis a PCE factor of 1.5 was applied which is more conservative than the 1.3 PCE permitted by the HCM.

Standards and Methods

Level of Service (LOS) is a professional industry standard by which the operating conditions of a given roadway segment or intersection is measured. Level of Service is defined on a scale of A to F. LOS A represents the best operating conditions and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds; traffic volumes are low and travel speeds are high. LOS F facilities are characterized as having force flow with many stoppages and low operating speeds.

The Public Facility Element (PFE) of the County General Plan establishes LOS D as a threshold for discretionary projects and provides that when an existing Level of Service is already LOS D, a LOS D is allowed. (PFE pp. XII, 4-15, 4-18).

The Highway Capacity Manual is utilized to determine the level of service for both roadway links and signalized and unsignalized intersections. For roadway links, the analysis focuses upon a peak hour analysis utilizing software provided as part of the Highway Capacity Manual. This analysis includes terrain inputs, travel speeds, pavement widths, access points, passing zones and other factors to determine level of service more precisely than the generalized County's daily capacity thresholds.

The level of signalized and unsignalized intersections utilizes the operational analysis procedure provided by the Highway Capacity Manual program which is an approved methodology for the County of San Diego. This method defines level of service in terms of delay, or more specifically, average stop delay per vehicle. Delay is a measure of driver and/or behavior discomfort, frustration, fuel consumption and lost travel time. This technique uses 1900 vehicles per hour per lane (vphpl) as the maximum saturation volume of an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e. percentage of trucks) and shared lane movements (i.e. through and right-turn movements originating from the same lane). The methodology used by Caltrans for intersection operation uses an Intersecting Lane Volumes (ILV) analysis. This methodology compares critical

movements within a signalized intersection to determine acceptable flow. Caltrans flow rates assume a value of less than 1200 vehicles to be free flowing; a value between 1200-1500 is considered acceptable flow; and values exceeding 1500 are considered deficient.

Congestion Management Program Analysis

Based on the approval of Proposition 111 in 1990, regulations require the preparation, implementation and annual updating of a Congestion Management Program (CMP) in each of California's urbanized counties. In 1991, San Diego County adopted their initial CMP statutes. One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants and traffic consultants through a traffic report usually conducted as part of the CEQA review process.

Whether a particular project is subject to the CMP regulations is determined by the trip generation potential for the project. Currently, the threshold is 2400 maximum daily trips (ADT) or 200 peak hour trips. The project will generate approximately 2085 daily trips with 206 morning peak hour and 247 evening peak hour trips and is therefore subject to CMP analysis. The traffic report completed for the project by Darnell & Associates in 2006 complies with all CMP requirements in evaluating both project and cumulative traffic impacts.

SR 76 and its intersections from Mission Avenue (west of the project) to SR 79 (east of the project) have been adopted in the Congestion Management Program (CMP) as a Regional Arterial System (RSA). Therefore, the CMP Standards and Regional Growth Management Strategy (RGMS) objectives apply. The RGMS objective for RSA roadways is LOS D. Therefore, the criteria of LOS D is used as acceptable operation for SR 76 in the project area.

This LOS D standard is also contained in the Public Facility Element of the San Diego County General Plan. The Public Facility Element (PFE) establishes LOS D as a threshold for discretionary projects and provides that when an existing Level of Service is already LOS D, a LOS D is allowed. (PFE pp. XII, 4-15, 4-18). For both of these reasons, the condition of SR 76 has been analyzed based upon LOS D as the required level of service.

Existing Levels of Service

Using the worst-case input configuration, the resulting peak hour threshold on SR 76 is 1316 vehicles per hour to attain LOS D utilizing the Highway Capacity Manual (HCM) software version 4.1f. As indicated in Table 4.5-2 below, all segments of SR 76 east of I-15 currently operate in an LOS D condition or better with the exception of SR 76 west of Old Highway 395, which demonstrates a LOS E condition from 12:00 P.M. through the 5:00 P.M. hour. In addition, existing conditions were also analyzed along Camino del Norte west of I-15 based on the near-term condition (including traffic from Phase 1 of the Maranatha School development) described in the Katz, Okitsu & Associates Maranatha School and Church Traffic Impacts Study. All segments operated in acceptable condition of LOS D or better.

TABLE 4.5-2
SUMMARY OF PEAK HOUR VOLUMES ON STATE ROUTE 76
EXISTING CONDITION

	SR-76 Segments									
	West of 395		I-15/Pankey		Pankey/Couser		Couser/Project		East of Project	
Time of Day	Traffic	LOS	Traffic	LOS	Traffic	LOS	Traffic	LOS	Traffic	LOS
7:00 AM	1055	D	608	C	600	C	617	C	627	C
8:00 AM	1129	D	651	C	654	C	635	C	645	C
9:00 AM	1178	D	679	C	655	C	670	C	681	C
10:00 AM	1296	D	747	D	776	D	761	D	773	D
11:00 AM	1065	D	614	C	702	D	779	D	791	D
12:00 PM	1381	E	796	D	874	D	856	D	870	D
1:00 PM	1362	E	785	D	909	D	906	D	920	D
2:00 PM	1707	E	984	D	1085	D	1074	D	1091	D
3:00 PM	1815	E	1046	D	1147	D	1189	D	1208	D
4:00 PM	1803	E	1039	D	1189	D	1115	D	1133	D
5:00 PM	1546	E	891	D	978	D	937	D	952	D
Column Totals	15337		8840		9569		9539		9691	

February 2005 Traffic Counts;

Peak Hour LOS D Maximum is **1316** Vehicles; and LOS E maximum at **2628** Vehicles based on HCM software 4.1f
Source: Darnell & Associates, 2006

Intersections

Operating characteristics of existing signalized and non-signalized intersections were analyzed using SYNCHRO 5.0 and the Intersecting Lane Volumes (ILV) analysis prescribed by Caltrans. SYNCHRO 5.0 (a coordination software), is based on Highway Capacity Software (HCS) and required by local jurisdiction where intersections are closely spaced. Tables 4.5-3 and 4.5-4 summarize the existing conditions of intersections in the area based upon both analyses. All intersections currently operate at LOS D or better under both analyses. In addition, existing conditions were also analyzed for intersections along Camino del Norte west of I-15 based on the near-term condition (including traffic from Phase 1 of the Maranatha School development) described in the Katz, Okitsu & Associates Maranatha School and Church Traffic Impacts Study. That analysis indicated that all intersections at Camino San Bernardo and I-15 Northbound and Southbound Ramps operated at an acceptable condition of LOS D or better.

TABLE 4.5-3
EXISTING INTERSECTION
LEVEL OF SERVICE SUMMARY

Intersection	Crit Mvmt.	Existing Conditions	
		Delay Sec/veh	LOS
A.M. PEAK HOUR			
SR 76/Old Highway 395	Int.	29.2	C
SR 76/Interstate 15 South	Int.	20.1	C
SR 76/Interstate 15 North	Int.	21.1	C
P.M. PEAK HOUR			
SR 76/Old Highway 395	Int.	24.9	C
SR 76/Interstate 15 South	Int.	19.2	B
SR 76/Interstate 15 North	Int.	52.4	D

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service;
Delay and LOS calculated using SYNCHRO; Crit. Mvmt = Critical Movement;
Int.= Intersection is critical movement (signalized)
Source: Darnell & Associates, 2006

TABLE 4.5.4
SUMMARY OF EXISTING INTERSECTION OPERATION
CALTRANS INTERSECTING LANE VOLUMES (ILV)

Intersection	Existing A.M. Peak ILV	Existing P.M. Peak ILV
State Route 76/Highway 395	977	949
State Route 76/Interstate 15 South	1015	1152
State Route 76/Interstate 15 North	755	1479

ILV=Intersecting Lane Volumes (Caltrans Methodology)
ILV Value = less than 1200 (Free Flow)
ILV Value = 1200-1500 (Acceptable Flow)
ILV Value = exceeds 1500 (Deficient Flow)
Source: Darnell & Associates, 2006

Existing Conditions for Freeway Ramps and Freeway Segments

The existing condition of ramp operations for freeways in the area was conducted with the HCS software for merge and diverge junctions. Freeway segments north and south of SR 76 were analyzed using Caltrans methodology which includes peak hour factors, directional distribution, and truck factors, comparing the output to level of service. Tables 4.5-5 and 4.5-6 summarize existing operating conditions at freeway ramps and on I-15 north and south of SR 76. In the

TABLE 4.5-5
RAMP OPERATION

Ramp ID	A.M. Peak		P.M. Peak	
	Density	LOS	Density	LOS
SR 76/I-15 North On	19.2	B	19.9	B
SR 76/I-15 North Off	20.7	C	22.2	C
SR 76/I-15 South On	19.1	B	18.9	B
SR 76/I-15 South Off	22	C	21.9	C

Analysis performed with Highway Capacity Software (Merge/Diverge)

Density = Passenger Cars per plane per mile

LOS = Level of service defined by HCS output

Source: Darnell & Associates, 2006

TABLE 4.5-6
EXISTING FREEWAY SEGMENT LEVEL OF SERVICE

						Existing Condition			
Segment Limits	**Lanes**	**Capac**	**Hr. %**	**Split**	**Factor**	**ADT**	**V/C**	**LOS**	
North of State Route 76	4	9200	7.35%	55%	10.23%	135000	0.654	C	
South of State Route 76	4	9200	6.82%	55%	8.14%	132000	0.582	B	
Pomerado Road to Carmel Mountain Road[a]	4	9200	8.8%	69%	6.1%	209,000	1.33	F(1)	

Lanes = Number of lanes in one direction; Peak Capac = peak capacity in one direction

Peak Hr % = peak hour percentage per ratio of peak hour versus average daily traffic (per Caltrans Traffic Volumes)

Dir. Split = directional split percentage of peak hour traffic traveling in peak direction; Truck Factor = influence of heavy vehicles

ADT = average daily traffic; V/C = volume to capacity ratio per Caltrans District 11 methodology; LOS = Level of service A to F, including F(0) to F(3)

Calculation formula = ((ADT*PH%*Dir. Split)+Truck Factor) / Peak Capacity

Source: Katz, Okitsu & Associates, Maranatha School and Church Traffic Impacts Study, 2001; and Darnell & Associates, 2006

existing condition, all freeway ramps and I-15 operate at acceptable levels of service. In addition, existing conditions were also analyzed for I-15 freeway segments between Pomerado Road and Carmel Mountain Road based on the near-term condition (including traffic from Phase 1 of the Maranatha School development) described in the Katz, Okitsu & Associates Maranatha School and Church Traffic Impacts Study. That analysis showed that these operate at unacceptable F(0) of F(1) conditions.

4.5.1.3 Existing Road Service Conditions

[No changes made to this section.]

4.5.1.4 Accident Reports for SR 76

[The following is added to the end of this section.]

The 2006 Darnell traffic report includes an additional analysis of accident data on SR 76 based upon accident data for the years 2003 through 2005 provided by Caltrans. The new accident data indicates that actual fatality rates on SR 76 per million vehicle miles traveled are less than the statewide average over the most recent three years and less than the rates identified based upon accident data for the period from 1991 through 1998. The combined fatality plus injury rate is slightly higher than the statewide average, but less than previously reported based upon the 1991 through 1998 accident data. Total accidents per million vehicle miles on SR 76 for the most recent three year period are at 1.81 compared to 2.07 based upon the 1991 through 1998 accident data. However, the statewide average of accidents has also slightly declined from 1.47 in the 1991 through 1998 time period to 1.33 for the 2003 through 2005 time period.

The most recent accident data continues to document that the principal causes of accidents on SR 76 are alcohol related or caused by illegal driver violations and not by truck traffic on SR 76. Over the 2003 through 2005 time period, approximately 24% of accidents on SR 76 were alcohol related, approximately 70% were caused by illegal driver violations, and another 1% were attributable to the driver falling asleep. Collectively, the recent accident data indicates that 96% of all accidents on SR 76 are caused by alcohol or driver behavior. This remains consistent with accident data for SR 76 compiled for the period from 1991 through 1998 which also showed alcohol and driver behavior accounted for approximately 87% of all accidents on SR 76. Accident data compiled on SR 76 continues to show accidents are caused by driver behavior and not truck trips.

[No other changes to this section.]

4.5.1.5 School Bus Stops on SR 76

[No changes made to this section.]

4.5.2 SIGNIFICANCE CRITERIA

[Changes to this section are underlined.]

The County of San Diego has established a goal of maintaining LOS D on all roadways and intersections during the peak hours. The County has developed draft level of significance standards for direct project impacts on congested roadway segments. Under these standards, the project would have a direct impact on segments of SR 76 where this segment is already operating in a LOS E condition and the project adds 200 or more average daily trips to this segment. Therefore, a significant impact would occur if the project would reduce the level of service at an intersection or roadway segment to below LOS D during either the morning or afternoon peak hour. The project would have a direct impact on SR 76 requiring mitigation if the project adds at least 200 average daily trips to a segment of SR 76 operating at LOS E or worse.

For roadways in the City of San Diego, the project would have a direct impact if it caused an increase in the volume/capacity ratio of 0.02 or greater for segments operating at LOS E or worse. The project would result in a significant impact on state highways if average daily trips generated by the project would significantly increase congestion on a state highway operating at LOS E or worse.

For freeways, Caltrans has established a goal of maintaining an LOS D, but has not provided significance criteria. However, criteria developed by SANTEC (San Diego Traffic Engineers Council), which is in common usage in the County, treats a project as having a direct impact requiring mitigation if it causes an increase of more than 2% in freeway traffic on a segment operating at LOS E or worse.

4.5.3 POTENTIAL IMPACTS

4.5.3.1 Short-Term (Construction) Impacts

[No change is made to this section.]

4.5.3.2 Long-Term (Operational) Impacts and Evaluation of 2003 Tribal Traffic Study

[All of this section is new.]

The long-term operational impacts of the project assumes a worst case scenario which is the highest daily level of waste allowed, 5,000 tons per day, along with periodic construction. The solid waste permit for the project will actually limit the landfill to 1 million tons per year or an average of 3200 tons per day of waste. The total daily trips of the project will be limited by the solid waste permit to 2085 passenger car equivalent (PCE) trips per day and a total of 675 trucks per day from all sources including any recycled water trips. This was the total number of trips previously analyzed in the 2003 Draft EIR.

CMP Analysis

As noted previously, SR 76 and its intersections from Mission Avenue to SR 79 have been adopted in the Congestion Management Program (CMP) as a Regionally Significant Arterial (RSA). Currently the threshold for CMP analysis is 2400 maximum daily trips (ADT) or 200 peak hour trips. The project will generate approximately 2085 daily trips with 206 morning peak hour and 247 evening hour trips on SR 76 east of I-15 and is therefore subject to CMP analyses. The CMP standard for SR 76 is LOS D. The CMP analysis has been completed for the project utilizing LOS D as the acceptable standard for SR 76.

Project Trip Generation

Trip generation for landfills is unique to operations of the facility. In this case, the solid waste permit will limit the project to a total of 2085 PCE trips per day and a total of 675 trips per day from all sources including the trucking of recycled water. When the project reaches a total of 2085 PCE daily trips or 675 trucks per day from all sources, the project will be required to close down for that day. On days when more trips are utilized for recycled water, fewer trips will be

available from other sources. The project will be required to maintain a daily log of its total daily trips and daily truck trips and make computerized records of daily and PCE trips available to the Department of Environmental Health.

To ensure a worst-case analysis of project traffic impacts, the analysis has been completed based on the assumption that the project will accept 5000 tons of solid waste per day. However, the solid waste permit will limit the project to a total of 1 million tons of solid waste per year or an average of 3200 tons per day. Accordingly, the traffic impacts for the project contained in the analysis overstates the expected traffic impacts of the project on a daily basis over the course of a year.

Table 4.5-7 provides a summary of project trip generation for the maximum of 5000 tons per day (tpd). This equates to a total of 675 trips from all sources per day for waste disposal, construction, recycled water, and other trips. To account for the effects of heavy vehicles on the street system, trucks are converted to cars using a passenger car equivalent (PCE). The PCE is from Table 8-9 in the Highway Capacity Manual (HCM) and is determined using grade percentages and average speed surveys completed by Darnell & Associates on SR-76. Given the actual grades of less than 2% on SR 76 and surveyed average speeds of 37.85 mph, a PCE of 1.3 could be used. However, to be conservative, a PCE factor of 1.5 is used. The 625 trucks entering and exiting the site (for waste disposal, construction, and recycled water) (x2) and applying the 1.5 factor equates to 2025 cars. Employee vehicles account for an additional 40 trips per day and service/visitor vehicles account for an additional 20 trips to equal the 2085 daily trips. The 60 trips from employees and service/visitor vehicles are not heavy trucks and therefore, the PCE is not applied.

Table 4.5-7 provides a summary of the hourly total project trip generation for the maximum 5000 tpd and the average 3200 tpd. Based on the average 3200 tpd, the project would generate 1410 PCE trips per day with the 1.5 PCE factor. The traffic analysis evaluates expected traffic impacts from the project based upon the worst-case 5000 tpd scenario. It is anticipated that the project may not reach the maximum capacity of 1 million tons per year until the year 2015. At that time, it is expected that the project would generate 1410 PCE daily trips and not the 2085 PCE daily trips assumed in the traffic analysis. The 2085 daily trips would only occur, if at all, on a few peak days within the year. Based on the solid waste permit limitation of a maximum of 1 million tons per year, the number of peak days (5000 tpd) that could occur are limited. Thus, the traffic analysis is a worst-case scenario and overstates the expected daily project trips by approximately 675 PCE trips per day.

Project Trips Distribution

Project related traffic was distributed according to likely routes and destinations and based upon the fact that all recycled water would be trucked to the site using I-15 and SR 76 east of I-15. Based on the geographic location of the landfill and available arterials leading to the landfill site, 95% of the traffic is oriented west of the landfill site to and from I-15 and 5% is oriented east of the project site. Trip distribution percentages for the project have been slightly altered from the

TABLE 4.5-7
TRIP GENERATION FOR GREGORY CANYON

Maximum Waste Volume = 5000 tons per day
Average Waste Volume = 3200 tons per day
Maximum Volume Trucks = 675 trucks x 1.5 PCE x 2 trips/day = 2025 trips (625 maximum 8-ton refuse trucks plus construction and water)
Average Volume Trucks = 450 trucks x 1.5 PCE x 2 trips/day = 1350 trips
Number of employee vehicles = 20 per day x 2 trips/day = 40 trips
Number of Service/Visitor Vehicles = 10 per day x 2 trips/day = 20 trips

MAXIMUM WASTE VOLUME TRIP GENERATION

	Time of Day											
Vehicle Type	**7:00**	**8:00**	**9:00**	**10:00**	**11:00**	**12:00**	**1:00**	**2:00**	**3:00**	**4:00**	**5:00**	**Total**
Trucks [1]	82	141	202	183	243	202	183	243	243	183	120	**2025**
Employee	11	9	0	0	0	0	0	0	0	11	9	**40**
Service	0	2	4	4	4	0	2	4	0	0	0	**20**
Hourly Total	**93**	**152**	**206**	**187**	**247**	**202**	**185**	**247**	**243**	**194**	**129**	**2085**

AVERAGE WASTE VOLUME TRIP GENERATION

	Time of Day											
Vehicle Type	**7:00**	**8:00**	**9:00**	**10:00**	**11:00**	**12:00**	**1:00**	**2:00**	**3:00**	**4:00**	**5:00**	**Total**
Trucks [1]	54	94	135	122	162	135	122	162	162	122	80	**1350**
Employee	11	9	0	0	0	0	0	0	0	11	9	**40**
Service	0	2	4	4	4	0	2	4	0	0	0	**20**
Hourly Total	**65**	**105**	**139**	**126**	**166**	**135**	**124**	**166**	**162**	**133**	**89**	**1410**

Vehicles are shown as two-way (enter/exit) except employees which are shown as one way entering A.M./existing in P.M.
PCE = passenger car equivalent per HCM Table 8.9
[1] Trucks = Max trucks permitted is 675 (includes hauling, recycled water, removal of brine and leachate, and construction trucks)
Source: Darnell & Associates, 2006

prior traffic studies as a result of recycled water trips added since the last traffic study. Since all trips for recycled water will travel east to the landfill site on SR 76, the percentage of traffic traveling west along SR 76 and west of I-15 has been slightly reduced to reflect this change. Using known population factors within regional origins and destinations and recycled water trips, 77% of the traffic is expected to utilize the I-15 corridor to the south, 10% to the north and 8% west on SR 76 west of I-15. Exhibit 4.5-3 graphically depicts project traffic on the various area roadways based upon these distribution splits.

In contrast to previous traffic studies for the project, implementation of recycled water trucks totaling up to 267 PCE trips per day has slightly affected project distribution on SR-76 west of I-15. Recycled water for the project will now be delivered at Olivenhain's water facilities located west of I-15 and will travel east on SR 76 to the project site (see Exhibit 4.5-10 for locations of Olivenhain site and landfill site). None of these recycled truck trips will travel west on SR 76 after exiting I-15. These vehicles represent approximately 13% of overall traffic for the landfill site. Mathematically, by assigning the 267 known trips south/north on I-15, the remaining 1,818 trips (2,085 less 267) result in approximately 8% of the project total trips (or approximately 167 trips) utilizing SR-76 west of I-15.

As noted above, 13% of project trips, related to recycled water trucks, would use Camino del Norte/Camino del Sur and Maranatha Drive.

Traffic counts determined the typical morning peak hour to occur between 7:00 A.M. and 9:00 A.M. and the typical evening peak hour to occur 4:00 P.M. and 6:00 P.M. In contrast to this, the project generates its heaviest volumes at 11:00 A.M. and 2:00 P.M. as shown on Table 4.5-7.

Existing Plus Project Level of Service

To determine impacts associated with the project-related activities, maximum project traffic was added to existing conditions. The resulting traffic volumes are presented on Exhibit 4.5-4. Levels of service were calculated for this condition using the HCS methodology described previously in Section 4.5.1. Since the portion of SR 76 west of I-15 is currently operating in a LOS E condition without the project during the period from noon to 5:00 P.M. daily, project traffic on this segment was analyzed to determine whether project traffic exceeded the County's direct impact threshold of 200 average daily trips. The project generates a total of 167 average daily trips on the segment of SR 76 west of I-15 and accordingly does not trigger the County's threshold for direct impacts on this segment as prescribed by the County's level of significant standards for direct project impacts.

Table 4.5-8 summarizes peak hour volumes on SR 76 by hour for existing plus project traffic based upon the assumption the project receives 5,000 tons per day of waste. Table 4.5-8 indicates that portions of SR-76 east of I-15 would operate at a LOS E condition during the peak afternoon hours from 2:00 P.M. to 5:00 P.M. During the balance of the day, segments of SR 76

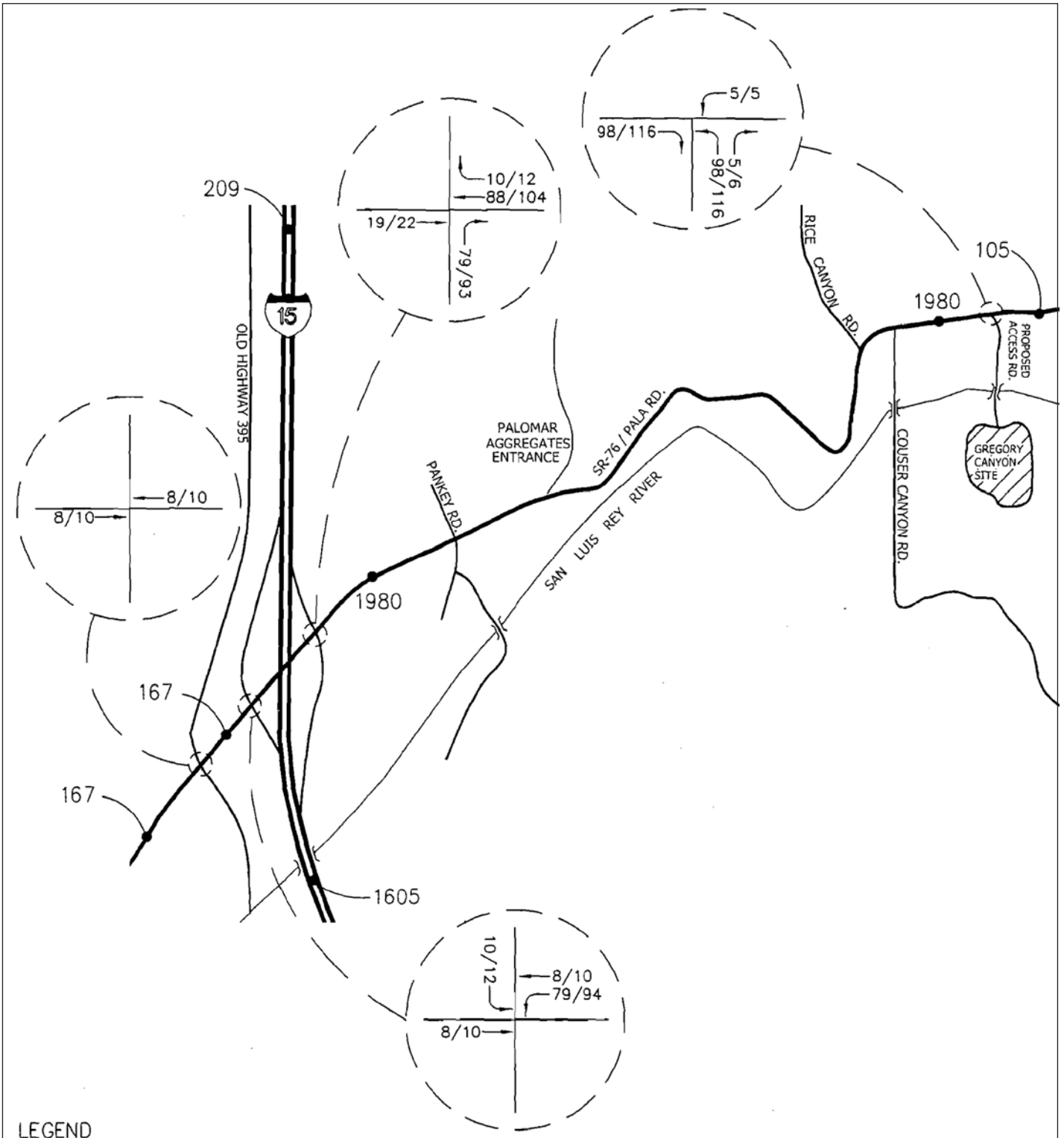
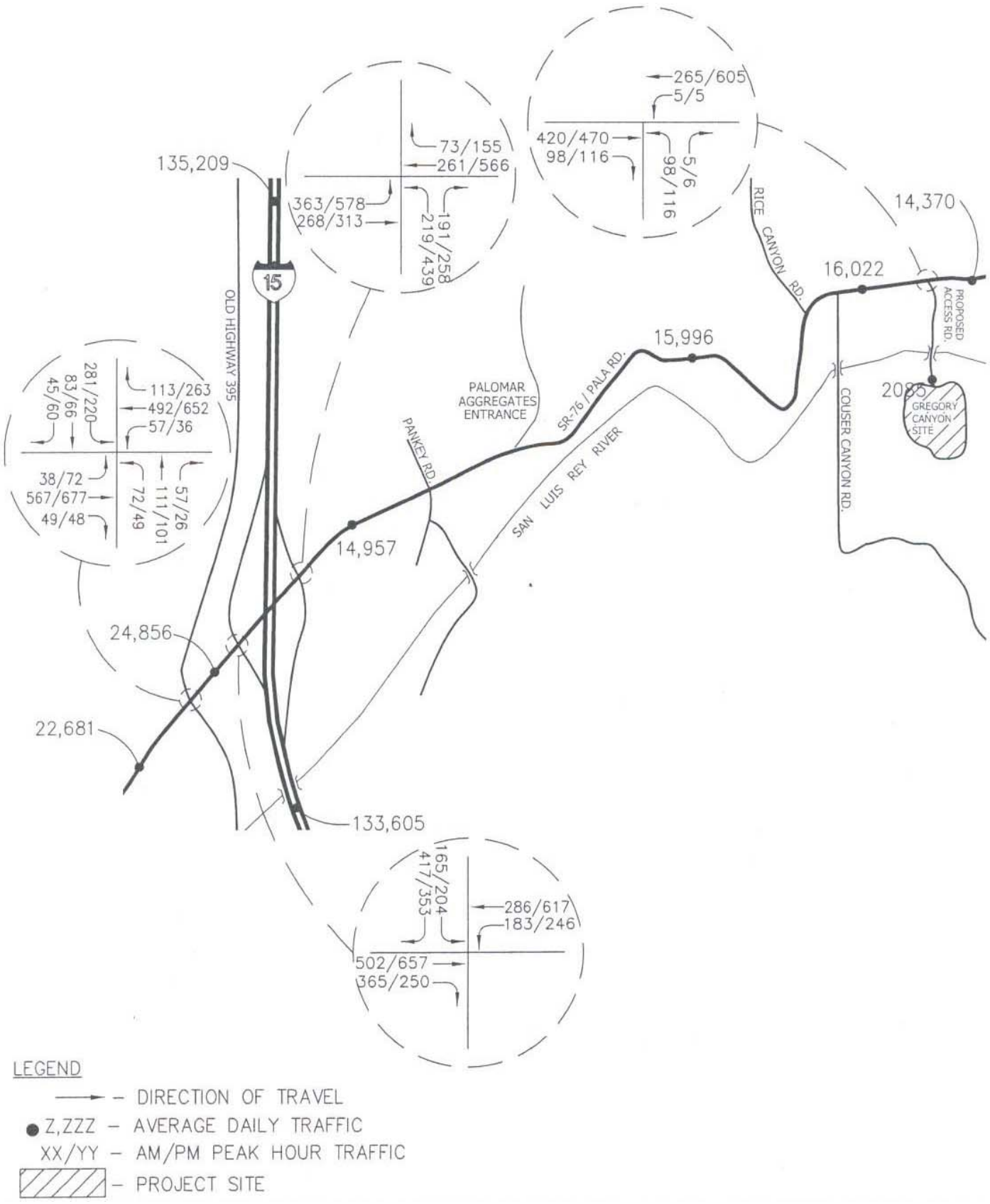


Exhibit 4.5-3
Project Generated Traffic Volumes and Distribution

Source: Darnell & Associates, Inc., 2006



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NOT TO SCALE

Exhibit 4.5-4
Existing Plus Project Traffic Volumes and Distribution

Source: Darnell & Associates, Inc., 2006

TABLE 4.5-8
SUMMARY OF PEAK HOUR VOLUMES ON STATE ROUTE 76 (BY HOUR)
EXISTING PLUS PROJECT CONDITION - 5,000 TPD

	5000 tpd	SR-76 Segment																			
	Project	West of 395				I-15/Pankey				Pankey/Couser				Couser/Project				East of Project			
Time of Day	Traffic	Existing	LOS	w/Proj	LOS	Existing	LOS	w/Proj	LOS	Existing	LOS	w/Proj	LOS	Existing	LOS	w/Proj	LOS	Existing	LOS	w/Proj	LOS
7:00 A.M.	88	1055	D	1067	D	608	C	696	D	600	C	688	C	617	C	705	D	627	C	635	C
8:00 A.M.	144	1129	D	1141	D	651	C	795	D	654	C	798	D	635	C	779	D	645	C	654	C
9:00 A.M.	196	1178	D	1194	D	679	C	875	D	655	C	851	D	670	C	866	D	681	C	691	C
10:00 A.M.	178	1296	D	1308	D	747	D	925	D	776	D	954	D	761	D	939	D	773	D	783	D
11:00 A.M.	235	1065	D	1078	D	614	C	849	D	702	D	937	D	779	D	1014	D	791	D	799	D
12:00 P.M.	192	**1381**	**E**	**1395**	**E**	796	D	988	D	874	D	1066	D	856	D	1048	D	870	D	879	D
1:00 P.M.	176	**1362**	**E**	**1377**	**E**	785	D	961	D	909	D	1085	D	906	D	1082	D	920	D	929	D
2:00 P.M.	235	**1707**	**E**	**1727**	**E**	984	D	1219	D	1085	D	**1320**	**E**	1074	D	1309	D	1091	D	1102	D
3:00 P.M.	231	**1815**	**E**	**1835**	**E**	1046	D	1277	D	1147	D	**1378**	**E**	1189	D	**1420**	**E**	1208	D	1219	D
4:00 P.M.	184	**1803**	**E**	**1821**	**E**	1039	D	1223	D	1189	D	**1373**	**E**	1115	D	1299	D	1133	D	1144	D
5:00 P.M.	122	**1546**	**E**	**1561**	**E**	891	D	1013	D	978	D	1100	D	937	D	1059	D	952	D	961	D
Column Totals	1981	15337		15504		8840		10821		9569		11550		9539		11520		9691		9796	

February 2005 Traffic Counts; Project Traffic of 1981 vehicles is 95% west oriented from 2085 total; (Note: traffic east of project is 5% or 105 trips; and west of 395 is 8% or 167 trips)

Peak Hour LOS D Maximum is **1316** Vehicles based on latest software version

Bold indicates volume exceeds maximum threshold

Source: Darnell & Associates, 2006

operate in an acceptable LOS D condition. During the peak hours from noon to 5:00 P.M., SR 76 west of 395 would operate at an LOS E condition with and without project traffic. Project traffic at 171 daily trips to the segment of SR 76 west of 395 is below the County's direct impact threshold of 200 average daily trips.

An analysis was also completed to determine how all segments of SR 76 east of I-15 operate if project trips are limited to 215 trips or 72 trucks from 2:00 P.M. to 3:00 P.M., 111 trips or 37 trucks from 3:00 P.M. to 4:00 P.M. and 111 trips or 37 trucks from 4:00 P.M. to 5:00 P.M. This analysis is shown on Table 4.5-9. As Table 4.5-9 indicates, if project traffic is limited to 215 trips from 2:00 P.M. to 3 P.M., 111 trips from 3:00 P.M. to 4:00 P.M. and 111 trips from 4:00 P.M. to 5:00 P.M., and these trips are reassigned to other hours of the day, all segments of SR 76 east of I-15 operate at an acceptable level of service.

The primary mechanism chosen to assure compliance with these limitations is an early warning system, whereby the landfill operator would notify waste-haulers to curtail deliveries as needed to maintain a LOS D or better once a specified percentage of the daily or hourly traffic limits is reached. The percentages chosen for the notice triggers were developed based on a conservative estimate of the number or commercial waste vehicles present on SR 76 east of I-15 at the time the notification is issued. This assures that no waste collection vehicle that begins the trip along SR 76 east of I-15 to the landfill is turned away (and required to travel back on SR 76 to another disposal facility) before its load of waste is discharged.

Tables 4.5-10a and 4.5-10b show operating characteristics of intersections and freeway ramps based on existing plus project traffic. All intersection and freeway ramps operate at an acceptable condition of LOS D or better for existing plus project traffic during peak morning and afternoon conditions.

The segment of SR 76 west of I-15 continues to operate in a LOS E condition with and without the project during the afternoon hours from noon to 5:00 P.M. However, project trips on this segment of SR 76 total 167 average daily trips under peak traffic conditions which is below the County's threshold of 200 daily trips triggering a direct project impact to this segment. Accordingly, although SR 76 west of I-15 operates at an unacceptable level of service with and without the project, the project does not create a direct impact on this segment under the County's significance standards requiring mitigation for this segment from the project. Nonetheless, the segment of SR 76 west of I-15 operates at an unacceptable level of service in its current condition and with project traffic considered.

Project-related traffic impacts related to recycled water trips on I-15 between Pomerado Road and Carmel Mountain Road, Camino del Norte/Camino del Sur and Maranatha Drive are discussed in Section 4.5.3.7.

Project Access/Internal Circulation

[No change has been made to this subsection.]

Project Impact on Road Surface Conditions

[No change has been made to this subsection.]

TABLE 4.5-9
SUMMARY OF PEAK HOUR VOLUMES ON STATE ROUTE 76 (BY HOUR)
REDISTRIBUTED - EXISTING PLUS PROJECT CONDITION - 5,000 TPD

				SR-76 Segment (Redistributed Project Traffic)																			
				West of 395				I-15/Pankey				Pankey/Couser				Couser/Project				East of Project			
Time	Proj Traffic	Redist. Proj Traffic	Proj Traffic Diff.	Existing	LOS	w/Proj	LOS	Existing	LOS	w/Proj	LOS	Existing	LOS	w/Proj	LOS	Existing	LOS	w/Proj	LOS	Existing	LOS	w/Proj	LOS
700	88	106	18	1055	D	1067	D	608	C	714	D	600	C	706	D	617	C	723	D	627	C	635	C
800	144	166	22	1129	D	1141	D	651	C	817	D	654	C	820	D	635	C	801	D	645	C	654	C
900	196	216	20	1178	D	1194	D	679	C	895	D	655	C	871	D	670	C	886	D	681	C	691	C
1000	178	206	28	1296	D	1308	D	747	D	953	D	776	D	982	D	761	D	967	D	773	D	783	D
1100	235	235	0	1065	D	1078	D	614	C	849	D	702	D	937	D	779	D	1014	D	791	D	799	D
1200	192	232	40	**1381**	**E**	**1395**	**E**	796	D	1028	D	874	D	1106	D	856	D	1088	D	870	D	879	D
1300	176	216	40	**1362**	**E**	**1377**	**E**	785	D	1001	D	909	D	1125	D	906	D	1122	D	920	D	929	D
1400	235	215	-20	**1707**	**E**	**1727**	**E**	984	D	1199	D	1085	D	1300	D	1074	D	1289	D	1091	D	1102	D
1500	231	111	-120	**1815**	**E**	**1835**	**E**	1046	D	1157	D	1147	D	1258	D	1189	D	1300	D	1208	D	1219	D
1600	184	111	-73	**1803**	**E**	**1821**	**E**	1039	D	1150	D	1189	D	1300	D	1115	D	1226	D	1133	D	1144	D
1700	122	167	45	**1546**	**E**	**1561**	**E**	891	D	1058	D	978	D	1145	D	937	D	1104	D	952	D	961	D
Totals	1981	1981	0	15337		15504		8840		10821		9569		11550		9539		11520		9691		9796	

February 2005 Traffic Counts; Project Traffic of 1981 vehicles is 95% west oriented from 2085 total; (Note: traffic east of project is 5% or 105 trips; west of 395 is 8% or 167 trips)

Peak Hour LOS D Maximum is **1316** Vehicles based on latest software version

Bold indicates volume exceeds maximum threshold

Source: Darnell & Associates, 2006

TABLE 4.5-10a
EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY

Intersection	Crit Mvmt.	Existing Conditions		Existing Plus Project					
		Delay sec/veh	LOS	Delay sec/veh	LOS	Δ Delay	Max Critical Movement	Proj Signif?	Proj. Impact
AM PEAK HOUR									
SR-76/Old Highway 395	Int.	29.2	C	29.3	C	0.1	8	N/A	None
SR-76/Interstate 15 South	Int.	20.1	C	21.0	C	0.9	79	N/A	None
SR-76/Interstate 15 North	Int.	21.1	C	22.3	C	1.2	88	N/A	None
SR-76/Project Access	WB	N/A		8.4	A		98	N/A	None
	NB			12.1	B				
PM PEAK HOUR									
SR-76/Old Highway 395	Int.	24.9	C	25.7	C	0.8	10	N/A	None
SR-76/Interstate 15 South	Int.	19.2	B	19.6	B	0.4	94	N/A	None
SR-76/Interstate 15 North	Int.	52.4	D	53.1	D	0.7	104	N/A	None
SR-76/Project Access	WB	N/A		8.6	A		116	N/A	None
	NB			15.4	C				

Delay is measured in seconds per vehicle; LOS=level of service; Δ Delay=change in delay;

Max Critical Movement = maximum vehicles in single critical movement

Delay and LOS calculated using SYNCHRO; Int.=Intersection; EB=eastbound, NB=northbound

Proj Signif? = Project significance based on County of San Diego's *Guidelines for Determining Significance*

Source: Darnell & Associates, 2006

TABLE 4.5-10b
SUMMARY OF EXISTING PLUS PROJECT RAMP OPERATION

Ramp ID	Existing Condition				Existing Plus Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Density	LOS	Density	LOS	Density	LOS	Density	LOS
SR-76/I-15 North On	19.2	B	19.9	B	19.2	B	20	B
SR-76/I-15 North Off	20.7	C	22.2	C	21.1	C	22.7	C
SR-76/I-15 South On	19.1	B	18.9	B	19.3	B	19.1	B
SR-76/I-15 South Off	22	C	21.9	C	22.1	C	21.9	C

Analysis performed with Highway Capacity Software (Merge/Diverge)

Density = Passenger Cars per plane per mile

LOS = Level of service defined by HCS output

Source: Darnell & Associates, 2006

Project Impact to Accident Rates on SR 76

[No change has been made to this subsection.]

Project Impact to School Bus Stops on SR 76

[No change has been made to this subsection.]

Tribal Traffic Study

The new traffic study completed by Darnell & Associates in 2006 evaluated the accuracy and reliability of traffic data contained in the March 2003 Tribal Traffic Study as previously ordered by Judge Anello. This review has included an evaluation of traffic data in the 2003 Tribal Traffic Study with data and evaluations contained in the 2006 traffic report completed by Darnell & Associates.

In March 2003 the County released a Tribal traffic study entitled "Traffic Needs Assessment of Tribal Development Projects In the San Diego Region" (Tribal Traffic Study). This traffic analysis was based upon traffic volumes that were obtained from the 2000 traffic flow map for the San Diego Metropolitan area prepared by SANDAG and the San Diego County Master Traffic Census prepared by the County Department of Public Works (Tribal Traffic Study p. 6). Estimations for casino operations were then added to these baseline conditions based upon the assumption that gaming facilities would result in 100 average daily trips for each 1000 square feet of gaming area and the further assumption that each hotel room would generate 3 trips per room. (*Id.* pp. 14, 18). The analysis assumed complete build-out of all Tribal projects and adjusted trip distribution assumptions in order to account for build-out of the County's Circulation Element roadway system. (*Id.* pp. 14, 21).

The 3 tribal projects used in analyzing traffic impacts to SR 76 in the Tribal Traffic Study were the Pala, Pauma and Rincon gaming and resort projects. This study assumed that the Pala Reservation would generate 7,550 daily trips, the Pauma Reservation would generate 4,000 daily trips, and the permanent Rincon Reservation facilities would generate 6,500 daily trips. (*Id.* pp. 19-20). The Tribal Traffic Study determined that SR 76 east of I-15 was operating at an acceptable LOS B condition under existing baseline conditions and determined that SR 76 would be operating at an acceptable LOS A through C condition when each of the Pala, Pauma and Rincon projects were added to baseline traffic. (Table E-1). However, the study concluded that portions of SR 76 would operate below LOS D based upon both near term cumulative and 2020 cumulative traffic conditions on SR 76. (*Id.*).

There are a number of factors that make the 2003 Tribal Traffic Study less reliable than the 2006 Darnell traffic study and it should not be relied upon to accurately determine existing traffic conditions on SR 76 or cumulative traffic conditions. The Tribal Traffic Study was based upon projected traffic conditions on SR 76 using a 2000 traffic flow map. By contrast, the 2006 Darnell traffic study is based upon actual counts taken in March 2005 of traffic conditions on SR 76. These more recent traffic counts are far more accurate in determining actual existing traffic conditions on SR 76 than the projections based upon 2000 traffic flow data contained in the Tribal Traffic Study. In projecting future casino traffic on SR 76, the Tribal Traffic Study made assumptions about trips generated by casino operations. The 2006 Darnell traffic study is based upon actual counts which includes existing traffic on SR 76 generated by the operational Pala, Pauma and Rincon gaming and resort projects. Accordingly, the actual count data taken by Darnell includes traffic generated by these operational casino projects. That is far more accurate than the assumptions made to support future projections of traffic on SR 76 contained in the

Tribal Traffic Study. In addition, the 2003 Tribal Traffic Study assumed ultimate buildout of the Pala, Pauma and Rincon gaming and resort projects. Ultimate buildout of these projects has not yet occurred but may occur over time as these projects are ultimately completed.

The Highway Capacity Manual (HCM) bases the evaluation of service levels on two-lane highways such as SR 76 on the number of vehicles per any given hour and not upon a general traffic load per day. The Tribal Traffic Study did not utilize the Highway Capacity Manual in determining levels of service on SR 76 based upon peak hourly conditions as prescribed in the HCM. The more recent Darnell traffic study properly utilizes criteria contained in the HCM in assessing the operational characteristics of SR 76.

The cumulative traffic conditions on SR 76 were evaluated in the Tribal Traffic Study based upon older Series 8 SANDAG projections. Subsequent to this study, SANDAG approved the more recent Series 9 and Series 10 SANDAG forecasts that incorporate more recent land use plans and development constraints into their modeling assumptions. The Series 8 projections contained in the Tribal Traffic Study are no longer reliable since SANDAG has now adopted more recent models to use in regional transportation planning and forecasting. The 2003 Tribal Traffic Study was not based upon a careful evaluation of projects in the pipeline like the 2006 Darnell traffic study and did not consider changing land use patterns caused by the County's current processing of General Plan 2020 that will significantly reduce the intensity of land use development in some of the non-urban areas of the County including areas surrounding SR 76. The cumulative traffic conditions contained in the 2006 Darnell traffic study are far more reliable, since they are based upon a very recent list of projects undergoing processing that would impact SR 76 and are based upon a 2030 cumulative analysis that considers changes currently being made as part of the County's 2020 General Plan process and based upon the more recent Series 10 SANDAG model. For all of these reasons, the 2006 Darnell traffic study is far more reliable and the Tribal Traffic Study should not be relied upon to accurately assess either existing or future cumulative traffic conditions on SR 76.

4.5.3.3 Cumulative Analysis

[All of this section is new.]

The 2003 Draft EIR for the project concluded that cumulative traffic impacts to SR 76 were significant and unmitigable. These cumulative traffic conditions were re-analyzed as part of the 2006 Darnell & Associates traffic study. Two cumulative scenario analyses have been completed for the project: (1) near term, identifying development that is approved or projected to occur in the area within a three-year time period and (2) Year 2030 build-out based upon the higher density map approved by the Board of Supervisors for the County's 2020 General Plan and the Series 10 SANDAG model.

Cumulative traffic impacts related to recycled water trips on I-15 between Pomerado Road and Carmel Mountain Road, Camino del Norte/Camino del Sur and Maranatha Drive are discussed in Section 4.5.3.7.

Existing Plus Other Development

Other known or potential projects which significantly affect the SR 76 corridor were identified and incorporated into the near-term cumulative analysis where appropriate. Research of County

records in March 2006 was utilized to identify pending projects for the near-term cumulative analysis. The major projects in the study are summarized in the 2006 Traffic Study in Appendix A.[5] A detailed list of these projects is contained in Appendix C of the 2006 Darnell traffic study.

The traffic volumes associated with these projects were then added to existing traffic to determine near term cumulative traffic conditions without the project as shown on Exhibit 4.5-5.

The County Board of Supervisors has approved a General Plan Amendment allowing submittal of a tentative map application for the proposed Warner Ranch development, located to the north of SR 76 approximately 1 mile east of the landfill access road. However, to date no application has been filed. For that reason, traffic from the Warner Ranch project has not been included in the list of cumulative projects or analyzed in the 2006 Darnell traffic study. However, this traffic would incrementally add to near term cumulative traffic on SR 76, which is already predicted to operate at LOS E (see Table 4.5-12c), and would incrementally increase the extent of the identified significant and unavoidable cumulative traffic impact on SR 76 (see Section 4.5.6).[6]

Existing Plus Other Development Plus Proposed Project

The proposed project traffic was added to the existing plus other development traffic as shown on Exhibit 4.5-6. As shown in Table 4.5-12a all intersections with the exception of the SR 76 and I-15 northbound intersection operate at acceptable levels of service. During peak afternoon traffic, the intersection of I-15 and SR 76 northbound continues to operate at an unacceptable level of service of LOS F with and without the project under near term operating conditions. As shown in Table 4.5-12b, all freeway ramps would continue to operate at acceptable levels of service with other proposed development in the area and project traffic. However, as shown in Table 4.5-12c, all segments of SR 76 east of I-15 and east of the landfill site would continue to operate at an unacceptable LOS E condition during the morning and afternoon peak hours similar to these traffic conditions without the project. SR 76 west of Highway 395 would also continue to operate at an unacceptable LOS E condition similar to the near term cumulative traffic conditions without the project. As shown in Table 4.5-12d, I-15 north of SR 76 and south of SR 76 would continue to operate at acceptable levels of service of LOS C or better under cumulative project conditions with project traffic.

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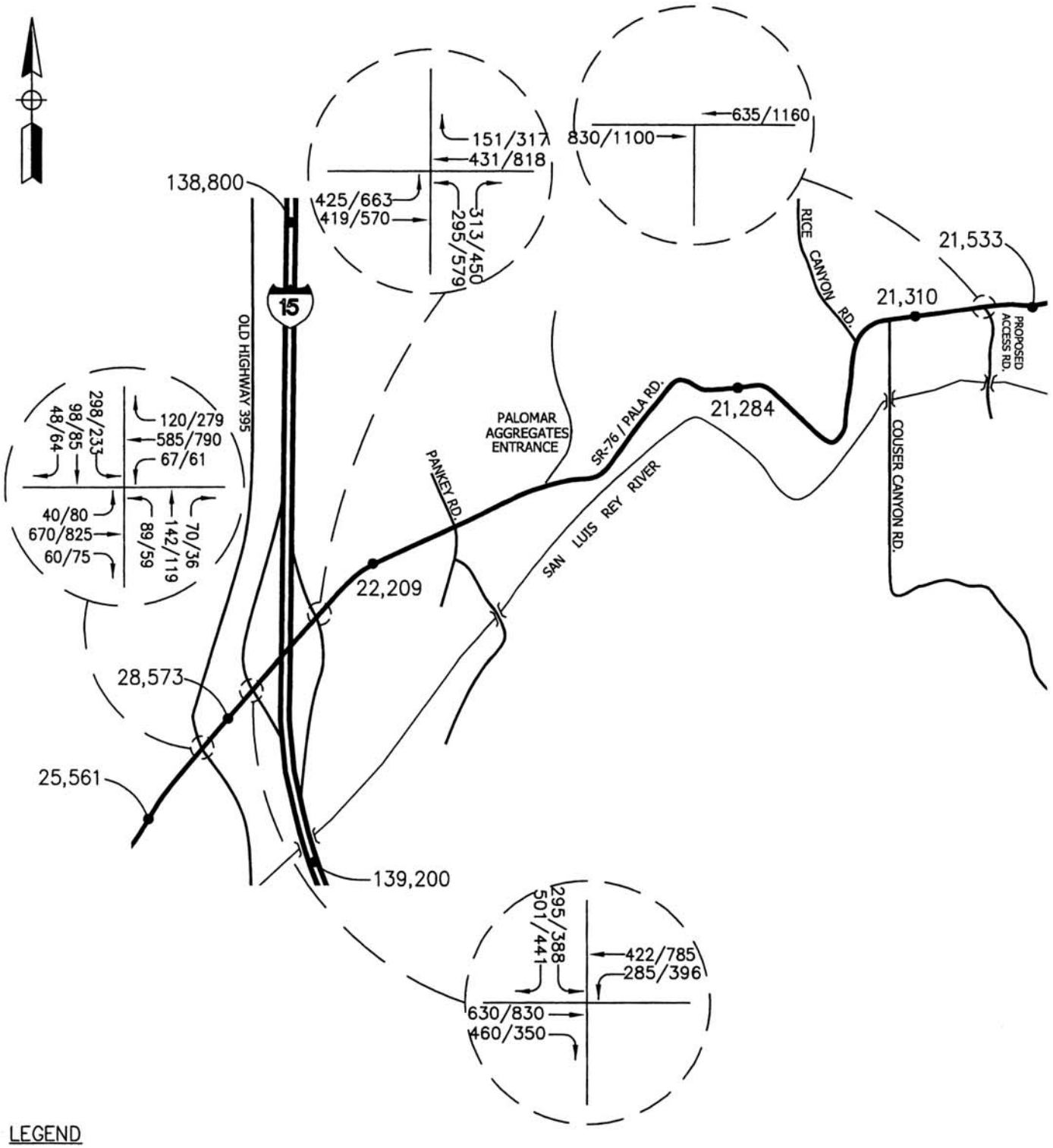
[5] *The near term cumulative analysis was revised and updated by Darnell & Associates in 2007 to incorporate information contained in public comments received on the Revised Partial Draft EIR. The Revised Traffic Study is provided in Appendix A of this Revised Final EIR.*

[6] *Likewise, the Warner Ranch project has not been analyzed in the 2006 Air Quality, Health Risk and Noise Technical Memorandum prepared by PCR Services, which is provided in Appendix D. However, the Warner Ranch project would incrementally increase air emissions and noise, and would incrementally increase the extent of the identified significant and unavoidable cumulative air quality and noise impacts, as identified in the 2003 Draft EIR as revised in the Revised Final EIR. In addition, it is possible that the landfill might be visible from some of the residences built as part of the Warner Ranch development. If that were the case, the Warner Ranch project would incrementally increase the extent of the identified significant and unavoidable aesthetic impacts to visual resources, visual character/quality, and landform quality noted in Section 4.13.5 of the 2003 Draft EIR.*

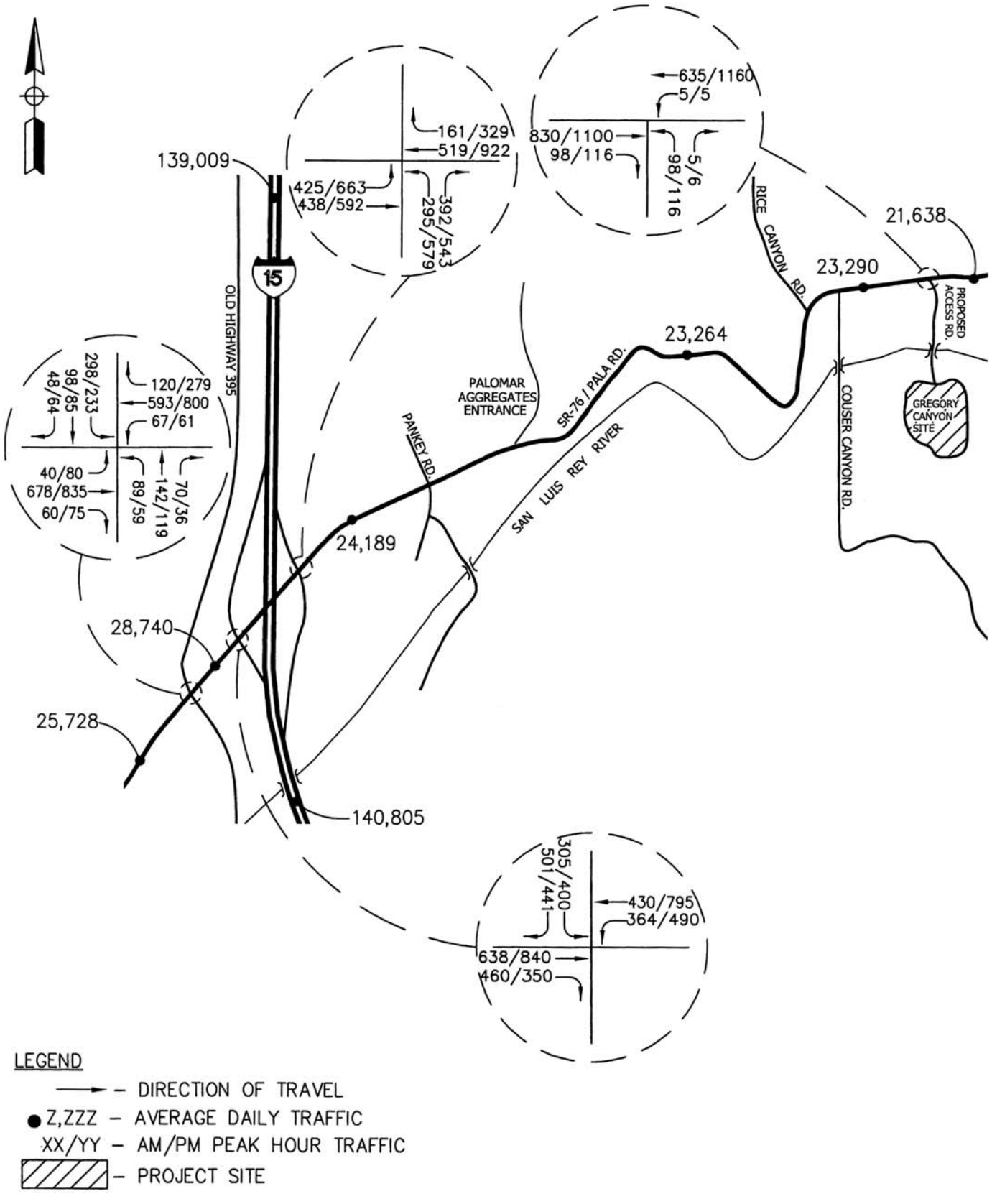


N

NOT TO SCALE

Exhibit 4.5-5
Existing Plus Other Development Traffic Volumes and Distribution

Source: Darnell & Associates, Inc., 2006



N

NOT TO SCALE

Source: Darnell & Associates, Inc., 2006

Exhibit 4.5-6
Existing Plus Other Development Plus Project Traffic Volumes and Distribution

TABLE 4.5-12A
NEAR TERM CUMULATIVE INTERSECTION LEVEL OF SERVICE SUMMARY

Intersection	Crit. Mvmt.	Existing (A) Delay sec/veh	LOS	Near Term (B) Delay sec/veh	LOS	Near Term+Proj (C) Delay sec/veh	LOS	Cuml Contrib. (C)-(A) Δ Delay	Cuml Traffic	Cuml Impact?	Project Contribution (C)-(B) Δ Delay	Proj Traffic	Proj Impact
AM PEAK HOUR													
SR-76/Old Highway 395	Int.	29.2	C	31.6	C	31.9	C	2.7	221	N/A	0.3	10	None
SR-76/Interstate 15 South	Int.	20.1	C	34.1	C	44.0	C	23.9	630	N/A	9.9	78	None
SR-76/Interstate 15 North	Int.	21.1	C	42.0	C	44.1	D	23.0	766	N/A	2.1	88	None
SR-76/Project Access	WB	N/A		N/A		10.3	B		739	N/A		98	None
	NB					20.9	C						
PM PEAK HOUR													
SR-76/Old Highway 395	Int.	24.9	C	30.4	C	33.7	C	8.8	320	N/A	3.3	12	None
SR-76/Interstate 15 South	Int.	19.2	B	47.2	D	53.8	D	34.6	805	N/A	6.6	92	None
SR-76/Interstate 15 North	Int.	52.4	D	**111.2**	**F**	**118.7**	**F**	**66.3**	**1156**	**Yes**	**7.5**	104	Cuml.
SR-76/Project Access	WB	N/A		N/A		11.2	B		1121	N/A		116	None
	NB					32.6	D						

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service; N/A=not applicable to LOS D or better
Cuml Contrib=Cumulative Contribution represents change over existing conditions including all projects plus proposed project
Project Contribution=incremental change associated with proposed project (Near Term with Project less Near Term without project)
Cuml Impact=Cumulative Impacts associated with the addition of all cumulative projects including proposed project
Project Impacts represent whether the project is a considerable portion of the total cumulative impacts
Delay and LOS calculated using SYNCHRO/HCS; Crit. Mvmt = Critical Movement; WB=westbound, NB=northbound, etc.
Project significance based on County thresholds
Source: Darnell & Associates, 2007

TABLE 4.5-12B
SUMMARY OF NEAR TERM CUMULATIVE RAMP OPERATION

Ramp ID	Near Term (No Project) AM Peak Density	LOS	Near Term (No Project) PM Peak Density	LOS	Near Term Plus Project AM Peak Density	LOS	Near Term Plus Project PM Peak Density	LOS
SR-76/I-15 North On	19.6	B	20.6	C	19.6	B	20.6	C
SR-76/I-15 North Off	24.5	C	27.1	C	25	C	27.6	C
SR-76/I-15 South On	19.8	B	19.8	B	20	B	20	B
SR-76/I-15 South Off	23.2	C	23.4	C	23.3	C	23.4	C

Analysis performed with Highway Capacity Software (Merge/Diverge)
Density = Passenger Cars per lane per mile
LOS = Level of service defined by HCS output
Source: Darnell & Associates, 2007

TABLE 4.5-12C
SUMMARY OF PEAK HOUR VOLUMES ON STATE ROUTE 76
REDISTRIBUTED - NEAR TERM CUMULATIVE CONDITION - 5,000 TPD

	SR-76 Segment (Redistributed Project Traffic)																			
	West of 395				I-15/Pankey				Pankey/Couser				Couser/Project				East of Project			
Time	Near Term	LOS	w/Proj	LOS	Near Term	LOS	w/Proj	LOS	Near Term	LOS	w/Proj	LOS	Near Term	LOS	w/Proj	LOS	Near Term	LOS	w/Proj	LOS
AM Peak	1452	E	1468	E	1463	E	1679	E	1480	E	1696	E	1468	E	1684	E	1474	E	1484	E
PM Peak	2047	E	2067	E	2188	E	2299	E	2346	E	2457	E	2346	E	2457	E	2365	E	2376	E

Source: February 2005 Traffic Counts; Project Traffic of 1982 vehicles is 95% west oriented from 2085 total

Peak Hour LOS D Maximum is **1316** Vehicles based on latest software version; LOS E Maximum is **2628** based on software

Source: Darnell & Associates, 2007

TABLE 4.5-12D
NEAR TERM FREEWAY SEGMENT LEVEL OF SERVICE

Interstate 15 Segment Limits	# Lanes	Peak Capac	Peak Hr. %	Dir. Split	Truck Factor	Near Term (No Project)			Near Term (Plus Project)				
						ADT	V/C	LOS	ADT	V/C	LOS	Incr. V/C	Sign?
North of State Route 76	4	9200	7.35%	55%	10.23%	138800	0.672	C	139009	0.673	C	0.001	No
South of State Route 76	4	9200	6.82%	55%	8.14%	139200	0.614	B	140805	0.621	B	0.007	No

Lanes = Number of lanes in one direction; Peak Capac = peak capacity in one direction

Peak Hr % = peak hour percentage per ratio of peak hour versus average daily traffic (per Caltrans Traffic Volumes)

Dir. Split = directional split percentage of peak hour traffic traveling in peak direction; Truck Factor = influence of heavy vehicles

ADT = average daily traffic; V/C = volume to capacity ratio per Caltrans District 11 methodology; LOS = Level of service A to F, including F(0) to F(3)

Sign? = significance? Yes or no; per City of San Diego thresholds

Calculation formula = ((ADT*PH%*Dir. Split)+Truck Factor) / Peak Capacity

Source: Darnell & Associates, 2007

Year 2030 Conditions

Year 2030 traffic conditions were generated based on the County of San Diego's 2020 General Plan which forecasts 2030 traffic using the higher density Board approved alternative land use map. The Board alternative map was chosen over the staff 2020 land use map because volumes in the staff approved 2020 map are significantly less than the Board alternative. The 2006 Darnell traffic study also evaluated cumulative traffic conditions in the year 2030 based upon the SANDAG Series 10 model. Between the landfill site and Pankey Road the Series 10 model and the Board alternative map are nearly identical. From Pankey Road to I-15, the SANDAG Series 10 model shows only 24,000 vehicles whereas the Board alternative map, which includes a number of proposed projects on Pankey Road, estimates 44,000 vehicles. The traffic study used the worst-case volumes contained in the Board alternative map in assessing cumulative traffic conditions in the year 2030. Intersection volumes were generated by factoring near term cumulative volumes by similar increases to the forecasted daily traffic. Two scenarios are assumed for 2030 traffic conditions. One scenario assumes no improvements are made to SR 76 and it remains as a two-lane highway. The second scenario assumes implementation of the General Plan Circulation Element which widens SR 76 to a four-lane roadway.

The County of San Diego has recently adopted an overall programmatic solution that addresses existing and projected future road deficiencies in the unincorporated portions of San Diego County. This program includes the adoption of a Transportation Impact Fee (TIF) to fund improvements to roadways necessary to mitigate potential cumulative impacts caused by traffic from future development. This program was based on a summary of projections which evaluated regional or area wide conditions contributing to cumulative transportation impacts. The SANDAG Regional Transportation Model was utilized to analyze projected build-out (Year 2030) development conditions on the existing circulation element roadway network throughout the unincorporated area of the County. Based on the results of the traffic modeling, funding necessary to construct transportation facilities that will mitigate cumulative impacts from new development was identified. Existing roadway deficiencies will be corrected from improvement projects funded by other public funding sources, such as TransNet, gas tax, and grants. Potential cumulative impacts to the region's freeways have been addressed in SANDAG's Regional Transportation Plan (RTP). This plan, which considers freeway build-out over the next 30 years, will use funds from TransNet, state and federal funding to improve freeways to projected level of service objectives in the RTP. The widening of SR 76 to four lanes has been included in this RTP.

Year 2030 traffic conditions on freeway ramps, I-15 and the SR 76 and I-15 intersections are shown on Tables 4.15-13a, 4.5-13b and 4.15-13c. As shown on these tables, several SR 76 and I-15 intersections and I-15 north and south of SR 76 operate at unacceptable levels of service in 2030 with or without the project.

Table 4.5-14 shows the SR 76 roadway segment analysis in the year 2030. As indicated in Table 4.5-14 all segments of SR 76 operate at LOS F in the year 2030 with and without the project.

TABLE 4.5-13A
YEAR 2030 PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY

Intersection	Crit Mvmt.	2030 (No Project) Delay sec/veh	2030 (No Project) LOS	Year 2030 (With Project) Delay sec/veh	Year 2030 (With Project) LOS	Δ Delay	Max Critical Movement	Proj Signif?	Proj. Impact
AM PEAK HOUR									
SR-76/Old Highway 395	Int.	58.3	E	59.2	E	0.9	8	Yes	Cumulative
SR-76/Interstate 15 South	Int.	108.8	F	118.8	F	10.0	79	Yes	Cumulative
SR-76/Interstate 15 North	Int.	77.5	E	100.0	F	22.5	88	Yes	Cumulative
SR-76/Project Access	WB NB	N/A		9.8 17.5	A C		98	N/A	None
PM PEAK HOUR									
SR-76/Old Highway 395	Int.	54.3	D	55.5	E	1.2	10	Yes	Cumulative
SR-76/Interstate 15 South	Int.	119.9	F	125.0	F	5.1	94	Yes	Cumulative
SR-76/Interstate 15 North	Int.	160.3	F	170.1	F	9.8	104	Yes	Cumulative
SR-76/Project Access	WB NB	N/A		10.3 26.1	B D		116	N/A	None

Delay is measured in seconds per vehicle; LOS=level of service; Δ Delay=change in delay;
Max Critical Movement = maximum vehicles in single critical movement
Delay and LOS calculated using SYNCHRO; Int.=Intersection; EB=eastbound, NB=northbound
Proj Signif? = Project significance based on County of San Diego's *Guidelines for Determining Significance*
Source: Darnell & Associates, 2006

TABLE 4.5-13B
SUMMARY OF YEAR 2030 RAMP OPERATION

Ramp ID	Year 2030 (No Project) AM Peak Density	AM Peak LOS	PM Peak Density	PM Peak LOS	Year 2030 (With Project) AM Peak Density	AM Peak LOS	PM Peak Density	PM Peak LOS
SR-76/I-15 North On	20.1	C	21.4	C	20.1	C	21.4	C
SR-76/I-15 North Off	24.7	C	27.3	C	25.1	C	27.8	C
SR-76/I-15 South On	20.2	C	20.2	C	20.4	C	20.4	C
SR-76/I-15 South Off	26	C	25.8	C	26	C	25.8	C

Analysis performed with Highway Capacity Software (Merge/Diverge)
Density = Passenger Cars per lane per mile
LOS = Level of service defined by HCS output
Source: Darnell & Associates, 2006

TABLE 4.5-13C
YEAR 2030 FREEWAY SEGMENT LEVEL OF SERVICE

Interstate 15 Segment Limits	# Lanes	Peak Capac	Peak Hr. %	Dir. Split	Truck Factor	Future (no project)			Future (with project)				
						ADT	V/C	LOS	ADT	V/C	LOS	Incr. V/C	Sign?
North of State Route 76	4	9200	7.35%	55%	10.23%	231000	1.119	F(0)	231209	1.120	F(0)	0.001	No
South of State Route 76	4	9200	6.82%	55%	8.14%	225000	0.992	E	226605	0.999	E	0.007	No

Lanes = Number of lanes in one direction; Peak Capac = peak capacity in one direction

Peak Hr % = peak hour percentage per ratio of peak hour versus average daily traffic (per Caltrans Traffic Volumes)

Dir. Split = directional split percentage of peak hour traffic traveling in peak direction; Truck Factor = influence of heavy vehicles

ADT = average daily traffic; V/C = volume to capacity ratio per Caltrans District 11 methodology; LOS = Level of service A to F, including F(0) to F(3)

Sign? = significance? Yes or no; per City of San Diego thresholds

Calculation formula = ((ADT*PH%*Dir. Split)+Truck Factor) / Peak Capacity

Source: Darnell & Associates, 2006

TABLE 4.5-14
YEAR 2030 ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

Roadway Segment	Maximum Capacity	Year 2030		Year 2030 Plus Project				
		ADT	LOS	Proj Traffic	ADT	LOS	Significant	Impact
SR-76: west of Hwy 395	16200	31760	F	167	31927	F	Yes	Cumulative
SR-76: Hwy 395/I-15	34200	38000	F	167	38167	F	Yes	Cumulative
SR-76: I-15/Pankey	16200	42110	F	1980	44090	F	Yes	Cumulative
SR-76: Pankey/Palomar	16200	24040	F	1980	26020	F	Yes	Cumulative
SR-76: Palomar/Couser	16200	24040	F	1980	26020	F	Yes	Cumulative
SR-76: Couser/Gregory Cyn	16200	18580	F	1980	20560	F	Yes	Cumulative
SR-76: east of Gregory Cyn	16200	18580	F	105	18685	F	Yes	Cumulative

ADT=Average daily traffic; LOS=level of service

Project significance/impact based on County of San Diego's *Guidelines for Determining Significance*

Maximum Capacity per County of San Diego Public Road Standards

Source: Darnell & Associates, 2006

4.5.3.4 General Plan Analysis

[All of this section is new.]

The cumulative impact analysis contained in the 2006 Darnell & Associates traffic study evaluates the future condition of intersections, freeway ramps, I-15 and SR 76 based upon the County of San Diego's 2020 General Plan using the land use map recently approved by the Board of Supervisors. The results of this analysis are discussed in Section 4.5.3.3 above.

4.5.3.5 Site Closure Impacts

[No change is made to this section.]

4.5.3.6 First San Diego Aqueduct Relocation Option

[No change is made to this section.]

4.5.3.7 Recycled Water Trips

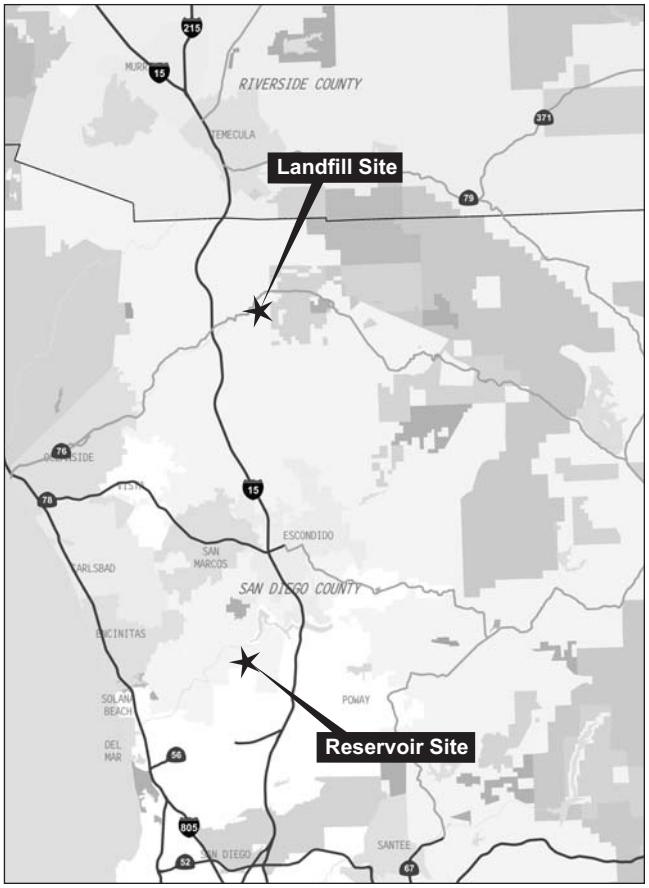
[All of this section is new.]

One source of water available to serve the project is recycled water purchased from Olivenhain Municipal Water District and trucked to the landfill site. Please see Section 4.15 for a more detailed discussion of these water supply issues. All water needed for project construction and operation could be recycled water purchased from Olivenhain and trucked to the landfill site. This water would be delivered to project trucks at Olivenhain's Santa Fe Valley Reservoir and Pump Station site located near the intersection of Artesian Road and Maranatha Drive west of I-15 (the "Reservoir Site"). The location and a schematic of the Reservoir Site are depicted in Exhibit 4.5-10.

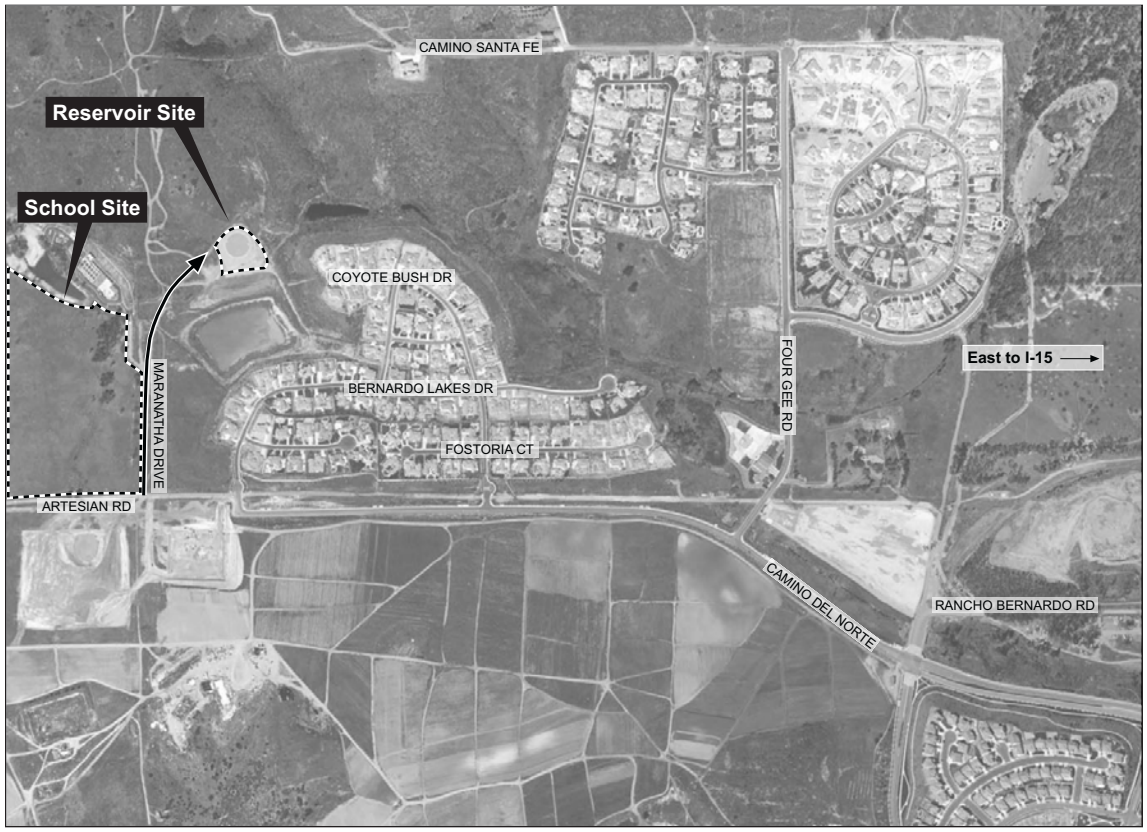
Water demand during operation will be highest when landfill operation occurs simultaneously with periodic construction to create new cells. During these periods, the estimated maximum water usage would be about 205,000 gallons per day (gpd). This translates into 89 one-way and 178 two-way truck trips to the site for recycled water during peak demand periods assuming that no water is available from on-site bedrock wells. Based upon a PCE conversion factor of 1.5, this results in approximately 267 daily trips to the landfill site for recycled water on peak demand days assuming all project water is trucked recycled water.

This analysis evaluates traffic associated with recycled water based on a worst-case scenario. Testing of the bedrock wells on site indicates that they have the ability to safely provide approximately 38,880 gallons per day of water during project construction and operation for the life of the project. This reduces the needed supply of recycled water during peak operations to about 166,120 gallons per day. This equates to 144 two-way daily truck trips for recycled water and 217 daily trips using the PCE conversion factor of 1.5. Peak recycled water use will occur only intermittently when new cells are being created in combination with ongoing project operations. During normal project operations, very little if any recycled water will be needed to serve the project since bedrock wells on site are capable of accommodating the 30,000 to 40,000 gallons per day required for project operations.

Total project trips from all sources including recycled water will be limited to a total of 2,085 PCE trips per day and 675 truck trips from all sources. When the project reaches a total of 2,085 PCE trips in any day or 675 trips from all sources, project facilities will be shut down. The traffic analysis contained in Section 4.5.3.2 includes recycled water trips in the analysis of direct and cumulative project traffic impacts. As noted in Section 4.5.3.2 with a limit on project trips during the peak afternoon hours from 2:00 P.M. to 5:00 P.M. adequate levels of service are maintained on all segments of SR-76 east of I-15 and all intersections, freeway ramps and I-15.



Regional Location Map



Aerial of Reservoir Site

PCR

N

0 .5 Miles

Scale in approximate miles

Source: Google Earth and Thomas Guide, 2006; Modified by PCR, 2007

Exhibit 4.5-10
Proximity of Landfill and Reservior Sites and Aerial of Reservoir Site

Although SR 76 west of I-15 operates in a LOS E condition during the afternoon hours of noon to 5:00 P.M. the project does not create a direct impact on the segment requiring mitigation since project daily trips on this segment are below the County's significance threshold of 200 average daily trips. Cumulative traffic impacts are significant and unmitigable in the near term and in the year 2030.

Traffic Impacts

The 2006 Darnell traffic study evaluated traffic impacts on Maranatha Drive, Camino del Norte/Camino del Sur and I-15. Trucks for delivery of recycled water would use I-15 and then Camino del Norte which transitions to Camino del Sur now known as Artesian Road and then turn right on Maranatha Drive to access Olivenhain's Reservoir Site. During peak recycled water demand days, this would result in 267 daily trips using Maranatha Drive for the pickup and delivery of recycled water which equates to approximately 25 trips per hour using the PCE factor of 1.5 or 8 trucks per hour. However, since recycled water trips will be prohibited from 6:45 A.M. to 8:15 A.M. and 2:30 P.M. to 4:15 P.M. on days when the school is in session to avoid potential impacts with Maranatha school traffic, approximately 12 recycled trucks will occur per hour equating to 36 PCE trips based on a PCE of 1.5 (12 x 2 x 1.5 = 36).

In order to assure that drivers will utilize the above-described routes, a project design feature will require that drivers use only the following roads: Maranatha Drive, Camino del Norte (Camino del Sur) between Maranatha Drive and I-15, I-15 between Camino del Norte and SR 76, and SR 76 east of I-15 to the landfill access road.

Traffic Impacts on Maranatha Road

Olivenhain's Reservoir Site where the recycled water will be delivered to project trucks is located on the east side of Maranatha Drive. A new school known as the Maranatha School is operating on the west side of Maranatha Drive. A major use permit for this school was approved by the County of San Diego on February 11, 2004. The major use permit permits a Christian school and church consisting of classroom buildings, a chapel and various buildings on a 22.5 acre site located on the west side of Maranatha Drive. The major use permit permits a maximum of 2000 students for grades kindergarten through high school. Phase I of the school will accommodate 900 students for kindergarten through high school. Phase II build-out projected in the year 2020 permits an additional 1100 students for a total of 2000 students.

Conditions of approval imposed by the County of San Diego on the Maranatha School project require the dedication of Maranatha Drive as a public road with a right-of-way width of 60 feet plus slope rights and drainage easements. The conditions of approval for the Maranatha School also required the widening and paving of Maranatha Drive to 40 feet of paved width and 60 feet of graded width.

A traffic study completed for the Maranatha School and church project by Katz, Okitsu & Associates indicates the project will generate 2141 daily trips in the near term and 4430 daily trips in the build-out condition projected in the year 2020. Access to the school is provided on Maranatha Drive and assumes 100% of project traffic will utilize Maranatha Drive. In addition to the required roadway improvements to Maranatha Drive for 40 feet of pavement and 60 feet of

graded width, the conditions of approval of the project require the installation of a traffic signal at the intersection of Maranatha Drive and Camino del Sur to the satisfaction of the County Director of Public Works and the City Engineer of the City of San Diego.

Sources of water available to the project include groundwater on the project site outside the Pala Basin derived from percolating groundwater through fractured bedrock and recycled water purchased from and delivered by Olivenhain. The maximum expected daily project demand for water is 205,000 gallons during peak periods that need water for both construction and operation of the project. On-site wells derived from percolating groundwater have the ability to supply approximately 38,880 gallons a day of this demand. However, in order to assess project traffic on Maranatha Drive based upon worst-case conditions, it has been assumed that all 205,000 gallons per day of water needed for the project is purchased and delivered as recycled water from Olivenhain with these truck trips utilizing Maranatha Drive for pickup and delivery.

Based on peak daily project water demand of 205,000 gallons loaded on 2300-gallon trucks results in 89 worst-case recycled trips utilizing Maranatha Drive on a daily basis. Utilizing the passenger car equivalent (PCE) factor of 1.5 and 2-way trips results in approximately 267 daily PCE trips utilizing Maranatha Drive for the delivery of recycled water assuming that all water provided to the project is recycled water. To avoid any potential safety impacts to students, parents, or teachers at the Maranatha school, recycled water trips using Maranatha Drive will be prohibited during the period from when school opens from 6:45 A.M. to 8:15 A.M. and at the end of the school day from 2:30 P.M. to 4:15 P.M. on days when the school is in session. During the remaining 9 hours of the project operations, hourly truck traffic would be approximately 10 trucks per hour. With 2-way trips and a PCE conversion factor of 1.5, this equates to approximately 36 PCE trips per hour. An additional 20 2-way trips are expected per day for personnel of Olivenhain and the Rancho Santa Fe CSD to access and utilize their respective facilities adjacent to Maranatha Drive. This results in total maximum daily traffic demand on Maranatha Drive of 4717 daily trips in the buildout condition. (4430 trips for the Maranatha school project + 267 peak daily trips for pickup and delivery of recycled water + 20 additional daily trips for public agency personnel).

As noted previously, the conditions of approval on the Maranatha School and church project require the widening of Maranatha Drive to 40 feet of paved surface on 60 feet of graded width. It is presently anticipated that these road improvements will be completed within the next 6 months.[7] Maximum daily trips on Maranatha Drive for the Maranatha school and church project, recycled water trips for the project and public agency personnel is 4717 daily trips. This equates to LOS C traffic flow conditions on Maranatha Drive under worst-case expected traffic conditions at build out of the Maranatha school project and assuming no percolating groundwater is used to serve the landfill project. With the improvements required on Maranatha Drive for the Maranatha school and church project, Maranatha Drive is able to accommodate peak traffic demand expected and will maintain adequate service levels under County road standards. The addition of recycled water trips for the project in the 2020 build out condition does not create a deficit condition and no additional roadway improvements or widening is required on Maranatha Drive.

[7] *These improvements have been completed since the circulation of the Revised Partial Draft EIR.*

To improve safety on Maranatha Drive, non-regulatory signage will be included to caution drivers about school activities and the presence of children if not provided by the school. The solid waste permit will also include conditions prohibiting the use of Maranatha Drive for recycled water trucks from 6:45 A.M. to 8:15 A.M. and 2:30 P.M. to 4:15 P.M. on days when the school is in session.

Therefore, recycled truck trips on Maranatha Drive will not result in any significant traffic or traffic safety impacts.

Traffic Impacts on Camino del Sur, Camino del Norte and I-15

The 2006 Darnell traffic study evaluated traffic impacts on Camino del Norte/Camino del Sur between Maranatha Drive and I-15, and on I-15 between Pomerado Road and Carmel Mountain Road. Currently, Camino del Sur and Camino del Norte are under construction to build these roadways to their ultimate roadway classifications. Camino del Sur is presently being constructed to 4-lane major standards and Camino del Norte is being improved to 6-land prime arterial standards. Additionally, Caltrans is currently implementing improvements to the I-15 corridor and interchange ramps at Camino del Norte as part of the I-15 managed lanes project. The managed lanes program involves increasing freeway capacity and transit opportunities through the I-15 corridor. Managed lanes are being constructed on I-15 with moveable barriers to accommodate the specific traffic demands throughout the day. For example, the moveable barrier may configure the 4 lanes with 3 southbound and 1 northbound in order to accommodate the morning commute and then reverse this configuration for the afternoon commute. Construction is also planned for auxiliary and added lanes where traffic congestion regularly occurs along the I-15 corridor. These lanes will add capacity at bottleneck locations and facilitate entering and exiting the freeway allowing the corridor to operate optimally. The segment of these improvements that includes Camino del Norte are scheduled for completion in 2007 or 2008.

For the purposes of identifying levels of service and traffic densities in the project vicinity, the Maranatha School and Church Traffic Impact Study prepared by Katz, Okitsu & Associates in 2001 was utilized. Since Camino del Norte, Camino del Sur, I-15 and the I-15 interchange ramps are currently under construction for ultimate general plan classifications, the traffic analysis focused on the 2020 buildout condition to demonstrate worst case traffic volumes on these road segments with the addition of project trips.

Future buildout roadway segment traffic densities on Camino del Norte, Camino del Sur and Maranatha Drive are shown on Table 4.5-15. As shown on Table 4.5-15, all roadway segments operate at LOS C or better with or without the project at 2020 buildout. The City of San Diego requires traffic analyses of all intersections within the City's jurisdiction where the project contributes 50 or more peak hour trips in any direction. The recycled water trucks generate a maximum of 36 peak hour passenger car equivalent (PCE) trips (2-way) and, therefore, does not meet significance criteria for City or County jurisdictions and is considered to be an insignificant portion of future traffic volumes on segments of Camino del Norte and Camino del Sur located in the City of San Diego.

TABLE 4.5-15
BUILDOUT ROADWAY SEGMENT LEVEL OF SERVICE WITH AND WITHOUT THE PROJECT IN THE VICINITY OF THE RESERVOIR SITE

ROADWAY SEGMENT	CLASS	MAXIMUM CAPACITY	BUILDOUT			BUILDOUT PLUS PROJECT					
			ADT	LOS	V/C	PROJ. TRAFFIC	ADT	LOS	V/C	V/C INCR.	SIGNIF?
Camino del Norte:											
1-15 SB/Bernardo Center [a]	6-Prime	60000	48300	C	0.805	267	48567	C	0.809	0.004	No
Bernard Ctr/Cam San Bernardo [a]	6-Prime	60000	44000	C	0.733	267	44267	C	0.738	0.004	No
Cam San Bernardo/Dove C [b]	6-Prime	57000	25400	B	0.446	267	25667	B	0.450	0.005	No
Dove Canyon/4S Parkway [b]	6-Prime	57000	28700	B	0.504	267	28967	B	0.508	0.005	No
4S P/Rancho Bernardo Rd [b]	4-Major	37000	25800	C	0.697	267	26067	C	0.705	0.007	No
Camino del Sur:											
Rancho Bernardo/Four Gee [a]	4-Major	40000	25600	C	0.640	267	25867	C	0.647	0.007	No
Four Gee/Maranatha [a]	4-Major	40000	22800	C	0.570	267	23067	C	0.577	0.007	No
Maranatha/West Loop Road [a]	4-Major	40000	8300	A	0.208	0	8300	A	0.208	0.000	No
Maranatha Drive:											
North of Camino del Norte [b]	2-Collector	16200	4450	C	0.275	267	4717	C	0.291	0.016	No

[a] City of San Diego jurisdiction
[b] County of San Diego jurisdiction

ADT=Average daily traffic; LOS=level of service; V/C=volume to capacity ratio

V/C Incr. = increase to volume to capacity ratio due to project

Maximum Capacity per County of San Diego Public Road Standards or City of San Diego where applicable

Signif?=significance yes or no, based on City or County standards where applicable

Source: Darnell & Associates, 2006

Intersection operation for the 2020 buildout condition was obtained from the 2001 Katz, Okitsu & Associates traffic study completed for the Maranatha School and Church project. As identified in this approved study, all intersections along the recycled water route operate at LOS D or better at buildout. The project does not meet minimum City or County thresholds for impacts (less than 50 trips in a single direction for the City and less than 20 critical movement trips within the County). Therefore, the project is considered to be an insignificant portion of the buildout traffic volumes at intersections along the recycled water truck route.

Information regarding existing conditions on the I-15 between Pomerado Road and Carmel Mountain Road was obtained based on the near term condition described in the 2001 Katz, Okitsu & Associates traffic study completed for the Maranatha School and Church project. That segment currently operates at an unacceptable LOS F. Total project trips related to recycled water would account for approximately 0.14% of daily traffic volumes on I-15 north of Camino del Norte, and no volume south of Camino del Norte.[8] Project traffic would, therefore, result in less than a 2% increase in existing traffic volumes on I-15. Nonetheless, project traffic would

[8] *Even if all 1,610 trips on I-15 south of SR 76 (see Exhibit 4.5-3) were assumed to pass through the Pomerado Road to Carmel Mountain road segment, it would only account for approximately 0.86% of daily traffic volumes, well below the direct impact threshold of 2%.*

add incrementally to the existing failing LOS F condition on I-15, and for this reason is treated for purposes of the Revised Final EIR as a significant and unavoidable traffic impact.

In addition, a freeway segment analysis was conducted by Darnell for I-15 from Pomerado Road to Carmel Mountain Road, assuming the worst-case 2020 buildout condition, as shown in Table 4.5-16. This analysis indicates that I-15 near Camino del Norte would operate at an unacceptable LOS F with and without the project. Total project trips related to recycled water would account for approximately 0.1% of daily traffic volumes on I-15 north of Camino del Norte, and no volume south of Camino del Norte.[9] Project traffic would, therefore, result in less than a 2% increase in expected future traffic volumes on I-15. Nonetheless, project traffic would add incrementally to the failing LOS F condition on I-15 at buildout, which is treated as a cumulatively significant and unavoidable traffic impact. Cumulative traffic on I-15 in the year 2020 would operate at an unacceptable LOS F condition with and without the project.

Accordingly, recycled water truck trips would not have a significant impact on Camino del Norte or Camino del Sur. While project traffic does not result in a direct impact to I-15 in the existing or future conditions since project traffic is less than 2% of traffic volumes on I-15, project traffic does incrementally add to the existing and future failing conditions on I-15. This is treated for purposes of the Final EIR as a significant and unavoidable traffic impact on I-15 based upon both exiting conditions and cumulative conditions.

4.5.5 MITIGATION MEASURES AND PROJECT DESIGN FEATURES

[Changes to this section are underlined.]

Proposition C

[No changes made to this section.]

Project Design Features

- SR 76 will be improved at the access road as shown in Exhibit 3-6 to provide adequate width for the eastbound deceleration lane and a westbound turn lane and to improve sight distance per Caltrans requirements. The improvements, which are approximately 1700 linear feet, will realign SR 76 to the south of the existing alignment and will widen the roadway to 52 to 64 feet.

- Non-regulatory signs will be posted on Maranatha Drive cautioning drivers about the school activities and the presence of children, if not installed by the school.

- Construction traffic to complete the improvements at the Reservoir Site and recycled water trucks will be prohibited from using Maranatha Drive from 6:45 A.M. to 8:15 A.M. and from 2:30 P.M. to 4:15 P.M. daily on days when the Maranatha School is in session.

[9] *Even if all 1,610 trips on I-15 south of SR 76 (see Exhibit 4.5-3) were assumed to pass through the Pomerado Road to Carmel Mountain road segment, it would only account for approximately 0.6% of daily traffic volumes, well below the direct impact threshold of 2%.*

TABLE 4.5-16
BUILDOUT FREEWAY SEGMENT LEVEL OF SERVICE

Interstate 15 Segment Limits	# Lanes	Peak Capac	Peak Hr. %	Dir. Split	Truck Factor	Buildout (no project) ADT	Buildout (no project) V/C	Buildout (no project) LOS	Buildout (with project) ADT	Buildout (with project) V/C	Buildout (with project) LOS	Incr. V/C	Sign?
Pomerado Rd/Rancho Bernardo	4	9200	8.70%	58%	9.20%	252100	1.510	F(3)	253705	1.520	F(3)	0.010	No
Rancho Bernardo/Bernardo Ctr	4	9200	8.80%	59%	9.20%	248500	1.531	F(3)	250105	1.541	F(3)	0.010	No
Bernardo Ctr/Camino del Norte	4	9200	8.80%	59%	9.20%	246000	1.516	F(3)	247605	1.526	F(3)	0.010	No
Camino del Norte/Carmel Mtn	4	9200	8.80%	61%	9.20%	249200	1.588	F(3)	250805	1.598	F(3)	0.010	No

Lanes = Number of lanes in one direction; Peak Capac = peak capacity in one direction

Peak Hr % = peak hour percentage per ratio of peak hour versus average daily traffic (per Caltrans Traffic Volumes)

Dir. Split = directional split percentage of peak hour traffic traveling in peak direction; Truck Factor = influence of heavy vehicles

ADT = average daily traffic; V/C = volume to capacity ratio per Caltrans District 11 methodology; LOS = Level of service A to F, including F(0) to F(3)

Sign? = significance? Yes or no; per City of San Diego thresholds

Calculation formula = ((ADT*PH%*Dir. Split)+Truck Factor) / Peak Capacity

Source: Darnell & Associates, 2006

- The installation of a traffic signal at the intersection of SR-76 and the landfill access road subject to the approval of Caltrans.

- Recycled water truck drivers may only utilize Maranatha Drive, Camino del Norte/Camino del Sur between Maranatha Drive and I-15, I-15 between Camino del Norte and SR-76 and SR-76 east of I-15 and the landfill access road.

Impacts and Mitigation Measures

This section includes only those mitigation measures that are new or have been revised based on the analysis contained in this section. In addition to the mitigation measure contained in Proposition C, the following more specific mitigation measures have been developed to reduce potential traffic impacts identified in the environmental analysis from project implementation.

Impact 4.5-2: *If total project traffic exceeds 2085 PCE trips per day or 675 total trips from all sources, segments of SR 76 east of I-15 would exceed the acceptable LOS D criteria and the project would have a direct impact.*

MM 4.5-2: Total project traffic from all sources on any day shall not exceed 2,085 PCE trips or maximum of 675 trucks from all sources. The project shall maintain computerized daily records of total truck trips per day and total project traffic from all sources. These records shall be available for review by the Department of Environmental Health during operational hours. When the project traffic equals 2,085 PCE trips or 675 trucks in any day, the landfill shall be shut down for the balance of that day. The facility will notify the LEA prior to closure. Once 95% of the maximum daily traffic limit is reached, the landfill operator shall immediately notify

commercial waste haulers to curtail waste deliveries, pursuant to the contract arrangements described in MM 4.5-3, as needed to assure compliance with the maximum daily traffic limits. Notwithstanding the above, the landfill operator may not refuse acceptance of any waste collection vehicle that was traveling on SR 76 east of I-15 at the time notice was given.

Impact 4.5-3: *With the addition of project peak hour traffic between the hours of 2:00 P.M. and 5:00 P.M., SR 76 east of I-15 would exceed the acceptable LOS D criteria and the project would have a direct impact.*

MM 4.5-3: Project traffic shall be limited to the following total trips:

TIME	TOTAL TRIPS
2:00 P.M. – 3:00 P.M.	215 PCE trips or 72 trucks
3:00 P.M. – 4:00 P.M.	111 PCE trips or 37 trucks
4:00 P.M. – 5:00 P.M.	111 PCE trips or 37 trucks

These hourly restrictions shall terminate when SR 76 is widened to four lanes between I-15 and the landfill access road.

Each contract for waste delivery at the landfill shall notify the customer of the peak hour traffic restrictions, shall require that the customer cooperate in good faith in scheduling deliveries to adhere to peak hour restrictions, and shall implement a notification system whereby the customer would be directed to use alternative disposal facilities as needed to assure compliance with the peak hour traffic restrictions.

Compliance with peak hour traffic restrictions shall be monitored on the inbound lane of the landfill access road at a location as near as feasible to SR 76. Vehicle trips will be counted manually or, if feasible, electronically, and where appropriate converted into PCE. If traffic counts are obtained or compiled electronically, and if feasible, traffic count data shall be made available to the Department of Environmental Health at its offices on a real-time basis. The landfill operator shall report traffic count information to the Department of Environmental Health weekly in writing.

Once 75% of the peak hourly restriction is reached, the landfill operator shall immediately notify commercial waste haulers to curtail waste deliveries, pursuant to the contract arrangements described above, as needed to assure compliance with the peak hour traffic restrictions. Notwithstanding the above, the landfill operator may not refuse acceptance of any waste collection vehicle that was traveling on SR 76 east of I-15 at the time notice was given.

Impact 4.5-4: *Even though the project does not have a direct impact requiring mitigation under County Guidelines or SANTEC criteria, SR 76 west of I-15 and I-15 between Carmel Mountain Road and Pomerado Road operate in an unacceptable LOS E or F condition with and without project traffic.*

MM 4.5-4: At the commencement of operation, the project applicant shall pay the County's Transportation Impact Fee to fund its fair share of improvements to address cumulative impacts. The Regional Transportation Plan (RTP) adopted by SANDAG includes freeway build-out over the next 30 years including the necessary improvements to SR 76 and its intersections with Highway 395 and I-15. The project will receive a credit against this fee for the value of monetary and non-monetary contributions to improvements of SR 76 undertaken by the project as a project design feature or mitigation in accordance with and consistent with Proposition C and County policies and procedures.

Impact 4.5-6: *The project contributes to near term and 2030 cumulative impacts on SR-76 that would cause SR 76 to operate below the acceptable LOS D standard. By the year 2030, the project contributes to cumulative traffic conditions that would cause all segments of SR 76 to operate at unacceptable levels of service and that would cause the intersections of SR 76 and Old Highway 395, SR 76 and Interstate 15 south, and SR 76 and Interstate 15 north to operate at unacceptable levels of service.*

MM 4.5-6a: At the commencement of operation, the project applicant shall pay the County's Transportation Impact Fee to fund its fair share of cumulative impacts to SR 76 and the intersections subject to the credits described in Mitigation Measure 4.5-4.

MM 4.5-6b: The Project Applicant shall make an irrevocable offer of dedication for right-of-way to 108 feet in width within the Project boundary for the widening of SR 76 to four lanes for the County of San Diego Circulation Element, including a designated bike route.

Impact 4.5-7: *Recycled water trucks could impact the structural integrity of Maranatha Drive.*

MM 4.5-7: The project shall conduct a structural integrity test on the Maranatha Drive pavement to determine ultimate load bearing of the roadway. If necessary, the project shall provide the required pavement overlay to support the heavy vehicle loads that would occur on Maranatha Drive. Any necessary repaving or construction along Maranatha Drive shall be done outside of the operation of the school (i.e., weekends or school breaks) so as to not disrupt school activities.

4.5.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

[This section is new.]

Implementation of the project design features and mitigation measures identified above will eliminate or reduce the potential project level traffic impacts on Maranatha Drive, Camino del Norte/Camino del Sur, the segments of SR 76 east of I-15 and all intersections, ramps, and I-15 north and south of SR 76 to a level of insignificance. However, the segment of SR 76 west of I-15 operates in an unacceptable LOS E condition with and without the project traffic. Although the project is not required to mitigate this impact to SR 76 west of I-15 based upon the County's significance criteria, the project incrementally adds traffic to the existing unacceptable level of service which is treated as a significant and unavoidable project level impact for purposes of this Revised Final EIR. In addition, the segment of I-15 between Pomerado Road and Carmel Mountain Road operates in an unacceptable LOS F condition with and without the project traffic. Although the project is not required to mitigate this impact to I-15 based upon the County's significance criteria, the project would incrementally add traffic to the existing unacceptable level of service which is treated as a significant and unavoidable project level impact for purposes of this Revised Final EIR

To mitigate cumulative traffic impacts, the project will be required to pay the County's Transportation Impact Fee (TIF) to fund its fair share of improvements, subject to the credits described in mitigation measures 4.5-4 and 4.5-6a. The Regional Transportation Plan (RTP) adopted by SANDAG includes freeway build-out over the next 30 years and the necessary improvements to SR 76 and its intersections with Highway 395 and I-15. Cumulative traffic impacts in the near term, the 2020 buildout condition, and the year 2030 on I-15, SR 76 or these intersections are significant and unavoidable. Given the uncertainty of the implementation of these future improvements, cumulative traffic impacts in both the near term, the 2020 buildout condition and in the year 2030 are considered significant and unavoidable.

4.6 NOISE AND VIBRATION

This section contains the following revisions to the 2003 Draft EIR:

- *Contains a new analysis of existing roadway noise levels based upon a new traffic study completed by Darnell & Associates and a new noise study completed by PCR.*
- *Contains a new analysis of long-term (operational) traffic noise impacts based upon the new traffic study completed by Darnell & Associates and the new noise study completed by PCR.*
- *Reanalyzes project traffic noise impacts to wildlife habitat based upon new traffic, noise and biology studies.*

[Changes to this section are shown in underline.]

This section presents an evaluation of the noise environment in the vicinity of the proposed Gregory Canyon Landfill, including a discussion of noise measurement scales, noise regulations, existing noise conditions in and near the project site, potential short-term noise increases due to construction of the proposed landfill and ancillary facilities, and potential long-term noise increases due to the operation of the landfill, including the use of trucked recycled water. This section is a summary of the "Noise Assessment for the Proposed Gregory Canyon Landfill" prepared by Mestre Greve Associates in 1999, an addendum prepared by PCR Services Corporation in 2002, ambient noise measurements conducted in November 2000 by PCR Services Corporation, the 2006 Traffic Study completed by Darnell & Associates and the 2006 updated noise analysis completed by PCR Services Corporation. The 1999, 2000, and 2002 noise technical reports are provided in Appendix J of the 2003 Draft EIR.

In addition, this section contains a summary of a vibration technical report that was prepared by Ogden Environmental and Energy Services in 1996 which addresses existing vibratory site conditions, as well as potential impacts to the First San Diego Aqueduct from construction blasting activities at the proposed Gregory Canyon Landfill site. The Ogden report has been supplemented by additional vibration impact modeling conducted by Investigative Science and Engineering (ISE, December 1998), to determine the level of impact on nearby residences and the SDG&E transmission facilities. This report is contained in Appendix J of the 2003 Draft EIR. The 2006 Traffic Study (revised 2007) completed by Darnell & Associates has been appended to this Revised Final EIR as Appendix A and the 2006 noise analysis (revised 2007) completed by PCR Services Corporation has been appended as Appendix D.

Finally, this section contains a summary of indirect traffic noise impacts to biological resources from traffic along SR 76 beginning at I-15 and then to the east through the project site.

The Traffic Study completed by Darnell & Associates is included in this Revised Final EIR as Appendix A. The revised biological technical report completed by URS is provided as Appendix B, and the noise analysis completed by PCR Services Corporation is included as Appendix D.

4.6.1 EXISTING SETTING

4.6.1.1 Community Noise Measurement Scales

[No change is made to this section.]

4.6.1.2 Noise Regulations

[No change is made to the introductory paragraph.]

San Diego County Noise Ordinance

[The last paragraph of this section is new.]

Section 36.410 of the San Diego County Code addresses noise from short-term construction activity. The ordinance allows the operation of construction equipment between the hours of 7:00 A.M. and 7:00 P.M., Monday through Saturday, excluding holidays listed in Section 36.410. Per Section 36.410, the exception for Sunday activities for construction work is for persons working on their own residences and does not include contractors. In addition, average construction equipment noise levels must not exceed 75 dBA between the hours of 7:00 A.M. and 7:00 P.M. at or beyond the property line of any property upon which a legal dwelling unit is located.

[No other changes are made to this section.]

San Diego County General Plan, Noise Element

[No change is made to this section.]

Wildlife Habitat Protection Regulations

[No change is made to this section.]

4.6.1.3 Existing Noise Levels

Ambient Noise Levels

[No change is made to this section.]

Estimated Existing Roadway Noise Levels

[All of this section is new.]

PCR Services Corporation reanalyzed existing traffic noise levels on SR 76 utilizing the updated traffic report completed by Darnell & Associates in 2006. The 2006 PCR Services Corporation report is included as Appendix D to this Revised Final EIR. Estimates of existing roadway noise levels in terms of CNEL were computed for the roadways that would serve the project site based upon the 2006 Darnell traffic report and are shown on Table 4.6-3. The values do not take into

TABLE 4.6-3
ESTIMATED EXISTING TRAFFIC NOISE LEVELS[a]

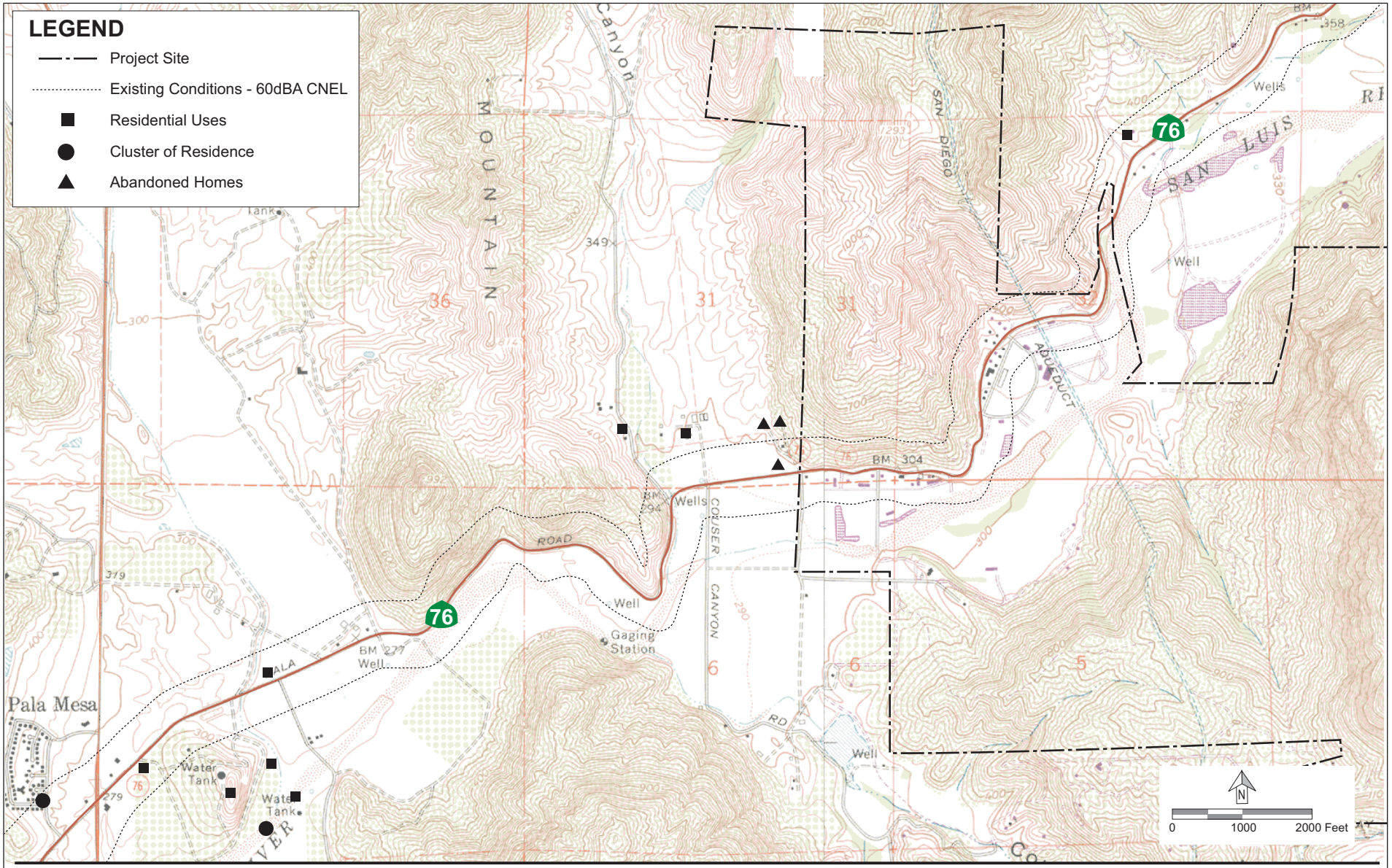
HIGHWAY/ROAD SEGMENT	ESTIMATED EXISTING NOISE LEVELS @ 100 FT FROM RIGHT-OF-WAY	ESTIMATED DISTANCE TO CNEL CONTOUR FROM RIGHT-OF-WAY (FEET)[b]		
	(CNEL dBA)	70 CNEL	65 CNEL	60 CNEL
SR 76[c]				
West of Highway 395	71.7	135	307	679
East of Highway 395	72.1	144	328	723
West of I-15	72.1	144	328	723
I-15 to Pankey Rd.	69.3	89	208	466
Pankey Road to Rice Canyon Rd.	69.3	89	208	466
Rice Canyon Rd. to Couser Canyon Rd.	69.3	89	208	466
Couser Canyon Rd. to access road	69.7	94	220	492
East of access road	69.7	95	223	497
West of Pala Temecula Rd.	69.7	95	223	497
Interstate 15[d]				
North of SR 76	76.8	340	767	1,687
South of SR 76	77.3	370	831	1,826
Old Highway 395[e,f]				
North of SR 76	67.7	71	152	328
South of SR 76	64.1	RW	87	187

[a] Noise calculations based on traffic data from Darnell & Associates, 2006.
[b] The existing noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels.
[c] Right-of-way width equals 32 feet and is based on existing conditions
[d] Right-of-way width equals 98 feet and is based on existing conditions
[e] Right-of-way width equals 52 feet and is based on existing conditions
[f] No project traffic occurs on this roadway segment. Therefore, traffic noise levels along this segment are provided from Table 4.6-3 of the 2003 Draft EIR.

Source: PCR Services Corporation, 2006

account the possible effects of existing noise barriers or topography. Table 4.6-3 shows the distances from the right of way of the road to the 60, 65, and 70 CNEL contours. The table indicates that the area along SR 76 west of Highway 395 has an estimated existing noise level without the project in excess of 70 CNEL. The area along SR 76 east of Highway 395 has an estimated existing noise level without the project in excess of 69 CNEL. The area along I-15 north and south of SR 76 has existing noise levels without the project in excess of 75 CNEL. These existing noise levels exceed the County Noise Element limits of 60 CNEL without the project.

Exhibit 4.6-2 illustrates the approximate location of the existing 60 CNEL contour along SR 76 between the proposed project access road and I-15. A site visit was conducted in March 2006 to



NOTE: 1) Noise contours are based on an attenuation rate of 4.5 dB per doubling of distance. Additional noise attenuation from buildings, foliage, and local topography are not included.

2) The existing residences on the project site are not shown since they would be removed as part of project implementation.

PCR

Exhibit 4.6-2
Existing 60dBA CNEL

Source: USGS Quadrangle & PCR Services Corporation, 2006

verify the location and number of residences.[10] As shown on Exhibit 4.6-2, there is a cluster of residences located within the 60 CNEL contour of SR 76 between I-15 extending east of the project site. This is an existing condition not caused by the proposed project. Based on estimated noise levels from existing traffic volumes, these homes are currently exposed to noise levels that exceed the County's Noise Element limit.

4.6.1.4 Vibration Technical Background

[No change is made to this section.]

4.6.1.5 Existing Vibratory Conditions

[No change is made to this section.]

4.6.2 SIGNIFICANCE CRITERIA

[No change is made to this section.]

4.6.3 POTENTIAL IMPACTS

4.6.3.1 Short-Term and Long-Term Construction Noise Impacts

[Changes to this section are underlined.]

As discussed in Chapter 3, Project Description, construction of the proposed landfill would be an ongoing process; it would consist of both "short-term" and "long-term" components. Initial construction includes: construction of the access road and bridge; construction of modifications to SR 76 at the access road entrance; construction of the ancillary and recycled water facilities; the initial blasting and excavation for the first phase of the landfill footprint; and the first stage of the waste containment system. Initial construction of the project is expected to take about 9 to 12 months, with the first phase of blasting for the landfill footprint taking place over approximately 6 months (controlled blasts occurring roughly every 3 weeks during that time).

On-going or long-term construction would include the subsequent periods of constructing the landfill footprint. Each of these subsequent periods is estimated to take 6 to 8 months, depending on the rate of refuge inflow. Furthermore, the time period between each phase of construction could be from 1 to 5 years. During each phase, blasting could occur over the majority of the landfill footprint; and like the initial phase, it is estimated to take approximately 6 months, with controlled blasts occurring roughly every 3 weeks during these periods.

Construction Assumptions

[Changes to this section are underlined.]

Excavation activities would have the greatest potential for generating off-site noise impacts in areas adjacent to the project site. The equipment used to excavate the site and crush rock, as well

[10] *Site visit by PCR Services Corporation staff in March 2006.*

as the trucks used to import liner material or haul the rock off-site for sale,[11] could produce adverse noise levels. Peak noise levels from these combined operations would range from 70 to 95 dBA at a distance of 50 feet (Harris 1979). This type of noise usually drops off at a rate of 6 dBA for each doubling of the distance from the source. Therefore, at 100 feet, the peak construction equipment noise level would range between 64 and 89 dBA; at 200 feet, the peak construction noise level would range from 58 and 83 dBA; and at 400 feet, the peak construction noise level would range between 52 and 77 dBA. For most types of construction equipment, the L_{eq} noise levels would range between 5 and 15 dBA below the peak noise levels noted above.

According to Herzog, there could be up to 13 pieces of heavy equipment and operation during any one construction period; 3 loaders, 2 graders/scrapers, 3 excavators, 3 dozers, and 2 compactors (Herzog 1998). This equipment would be sufficient to accommodate the double composite liner system and recycled water facilities. Based on these "worst-case" numbers and the specified types of equipment, and the estimated peak noise levels generated by this equipment, the L_{eq} noise level produced by construction activities on the project site is estimated to be approximately 78.5 dBA at a distance of 200 feet.

The project description has been revised to include a double composite liner with an additional drainage layer and an additional HDPE geomembrane. The ancillary facilities would include facilities necessary to serve recycled water for the project that include a 20,000 gallon recycled water storage tank, a distribution pipe, and a fill pipe. Noise impacts associated with these additional construction activities at the landfill site were evaluated by PCR Services Corporation as part of its updated noise analysis. The initial construction for the project discussed in Section 4.6.3.1 includes the construction of the access road, bridge, ancillary facilities, the excavation of the landfill footprint, and the installation of the waste containment system for Phase I. The initial construction period is estimated to be 9 to 12 months.

Pieces of equipment assigned to Phase I were conservatively assumed to operate the entire workday and would also be available for the additional double composite liner system and recycled water facility improvements at the project site. As an example, a crane used for unloading materials for Phase I construction could also be used for unloading equipment and materials for installation of the double composite liner and construction of the facilities necessary to serve recycled water for the project. Also, the double composite liner would largely include installation of premanufactured materials and would not result in the use of additional equipment. The construction noise analysis presented in the 2003 Draft EIR was based on Construction Engineering Research Laboratory (CERL) data from public works projects and, therefore, changes in specific activities would not change the construction noise level at a referenced distance. In addition, the analysis in the 2003 Draft EIR evaluated noise impacts based on the shortest distance between construction activities and sensitive receptors. As the additional improvements would be within the same footprint as the initial construction period activities (distance to closest receptor would not change) and the initial construction period reflects a conservative estimate of construction equipment and is sufficient to account for the

[11] *A Major Use Permit is required for the exportation or sale of aggregate material and will be obtained if necessary. However, the noise analysis assumes the exportation of rock since this represents a worst-case scenario.*

proposed improvements, potential construction noise levels provided in the 2003 Draft EIR would not change.

Habitat creation or enhancement activities would continue to be implemented in consultation with the project biologist. In addition, the increase in acreage that will be created or enhanced in accordance with the revised Wetland Mitigation and Habitat Enhancement Plan (see MM 4.9-18) would not increase the amount or intensity of work on any construction day, given the need to protect existing biological resources from noise, but rather would extend the time required to complete the work. As a result, potential construction noise levels provided in the 2003 Draft EIR would not change.

Short-Term Construction Noise Impacts

[No change is made to this section.]

Long-Term Construction Noise Impacts

[No change is made to this section.]

4.6.3.2 Long-Term (Operational) Traffic Noise Impacts

[All of this section is new.]

Long-term (operational) traffic noise impacts have been reanalyzed based upon the 2006 Darnell & Associates traffic report and the 2006 noise assessment of PCR. Operation of the proposed landfill would generate additional traffic on public roadways serving the landfill, and could, therefore increase noise levels along these roadways. For the purpose of this impact analysis, the "worst-case" traffic estimates included in the Darnell & Associates 2006 traffic report were used to analyze traffic-related noise impacts associated with the project and cumulative traffic conditions on SR 76.

The noise analysis completed by PCR in 2006 includes an evaluation of project noise impacts and cumulative noise impacts on SR 76, I-15 north and south of SR 76 and Old Highway 395. Table 4.6-5 shows the estimated change in roadway noise levels generated by project traffic alone and by project traffic in combination with future developments in the area.

Column 2 of Table 4.6-5 shows the project-generated traffic would result in estimated CNEL noise level increases over existing noise levels on SR 76 ranging from 0.0 to 0.6 dBA in both the near-term and year 2030 scenarios. In community noise assessments, noise level increases greater than 3 dBA are often considered significant, while changes less than 1 dBA are not discernable to local receptors. While in laboratory testing situations humans are able to detect noise level changes of slightly less than 1 dBA, in a community situation this is not generally true because noise exposure is over a long period of time and changes in noise levels occur over years. Because community noise environments are not immediate comparisons of noise levels, oftentimes a 3 dBA noise increase is considered as a significant threshold for human perception

TABLE 4.6 -5
ESTIMATED TRAFFIC NOISE LEVEL INCREASES ON PUBLIC ROADWAYS
(NEAR-TERM AND YEAR 2030)[a]

HIGHWAY/ROAD SEGMENT	INCREMENTAL NOISE INCREASE DUE SOLELY TO THE LANDFILL (CNEL, dBA) (NEAR-TERM/ YEAR 2030)	INCREMENTAL NOISE INCREASE DUE TO THE LANDFILL AND CUMULATIVE DEVELOPMENT[a] (CNEL, dBA) (NEAR-TERM/ YEAR 2030)	PERCENTAGE OF INCREMENTAL NOISE INCREASE DUE TO THE LANDFILL[a] (CNEL, dBA) (NEAR-TERM/ YEAR 2030)
SR 76			
West of Highway 395	0.1/0.0	0.6/1.5	9%/3%
East of Highway 395	0.1/0.0	0.6/1.5	9%/3%
West of I-15	0.0/0.0	0.7/1.9	7%/2%
I-15 to Pankey Road	0.6/0.3	2.9/5.4	19%/6%
Pankey Road to Rice Canyon Road.	0.6/0.5	2.7/3.2	21%/16%
Rice Canyon Rd. to Couser Canyon Rd.	0.6/0.2	2.7/2.9	21%/8%
Couser Canyon Road to access road	0.6/0.6	2.3/1.8	25%/34%
East of access Road	0.0/0.0	1.8/1.2	2%/3%
West of Pala Temecula Road	0.0/0.0	1.8/1.2	2%/3%
Interstate 15			
North of SR 76	N/A/0.0	N/A/2.5	N/A/<1%
South of SR 76	N/A/0.0	N/A/2.3	N/A/<1%
Old Highway 395[b]			
North of SR 76	N/A/0.2	N/A/4.6	N/A/4%
South of SR 76	N/A/0.2	N/A/8.3	N/A/2%

[a] Noise calculations based on near-term and cumulative traffic data from Darnell & Associates, 2007. Near-term conditions include existing conditions plus other known or potential projects and the project.

[b] No project traffic occurs on this roadway segment. Therefore, traffic noise levels along this segment are provided from Table 4.6-3 of the 2003 Draft EIR.

Source: PCR Services Corporation, 2007

of noise increases.[12] However, since the SR 76 corridor is an existing degraded noise environment with noise levels exceeding 60 CNEL at a cluster of existing residences already exposed to these noise levels and the project would increase these noise levels, the project would have a significant noise impact to a cluster of residences located within the 60 CNEL contours on SR 76 as discussed in the 2003 Draft EIR.

A comparison of the estimated 60 CNEL contours under the existing and existing plus project conditions shows that the proposed project would not increase the number of residences that would be exposed to exterior noise levels in excess of 60 CNEL. The residences that are already located within the 60 CNEL contour on SR 76 as shown on Exhibit 4.6-2 would continue to be

[12] *While a 3 dBA incremental change in noise is often used for evaluating traffic noise, the threshold used in the 2003 Draft EIR represents a more conservative approach.*

exposed to adverse noise impacts under existing, existing plus project, and cumulative traffic conditions. Exhibit 4.6-5 shows existing residences adversely affected by both existing plus project and cumulative traffic on SR 76.

As noted in the 2003 Draft EIR, potential mitigation for the project traffic noise impacts to these existing residences would be the installation of a barrier such as a fence, masonry wall, earth berm, or vegetation along SR 76 to reduce noise levels caused by project-generated traffic. Given the orientation of the residences and their proximity to SR 76, a 5-foot masonry wall installed in the in the right-of-way would be the most effective sound barrier to mitigate the project's increase in noise levels to this cluster of residences. A total of approximately 730 linear feet of sound wall would be required, with a break in the wall to maintain the common driveway for this cluster of residences. The installation of this sound wall would reduce noise levels by approximately 3 dBA and would mitigate project-generated traffic noise of 0.6 dBA to the impacted residences to a level of insignificance. However, since the applicant does not own the property and the property owner objects to a sound wall, implementation of this mitigation measure is not considered feasible.[13] Therefore, because the project traffic would increase the noise levels in an already degraded environment, the project would have a significant noise impact on the cluster of residences. This conclusion is consistent with conclusions reached in the 2003 Draft EIR.

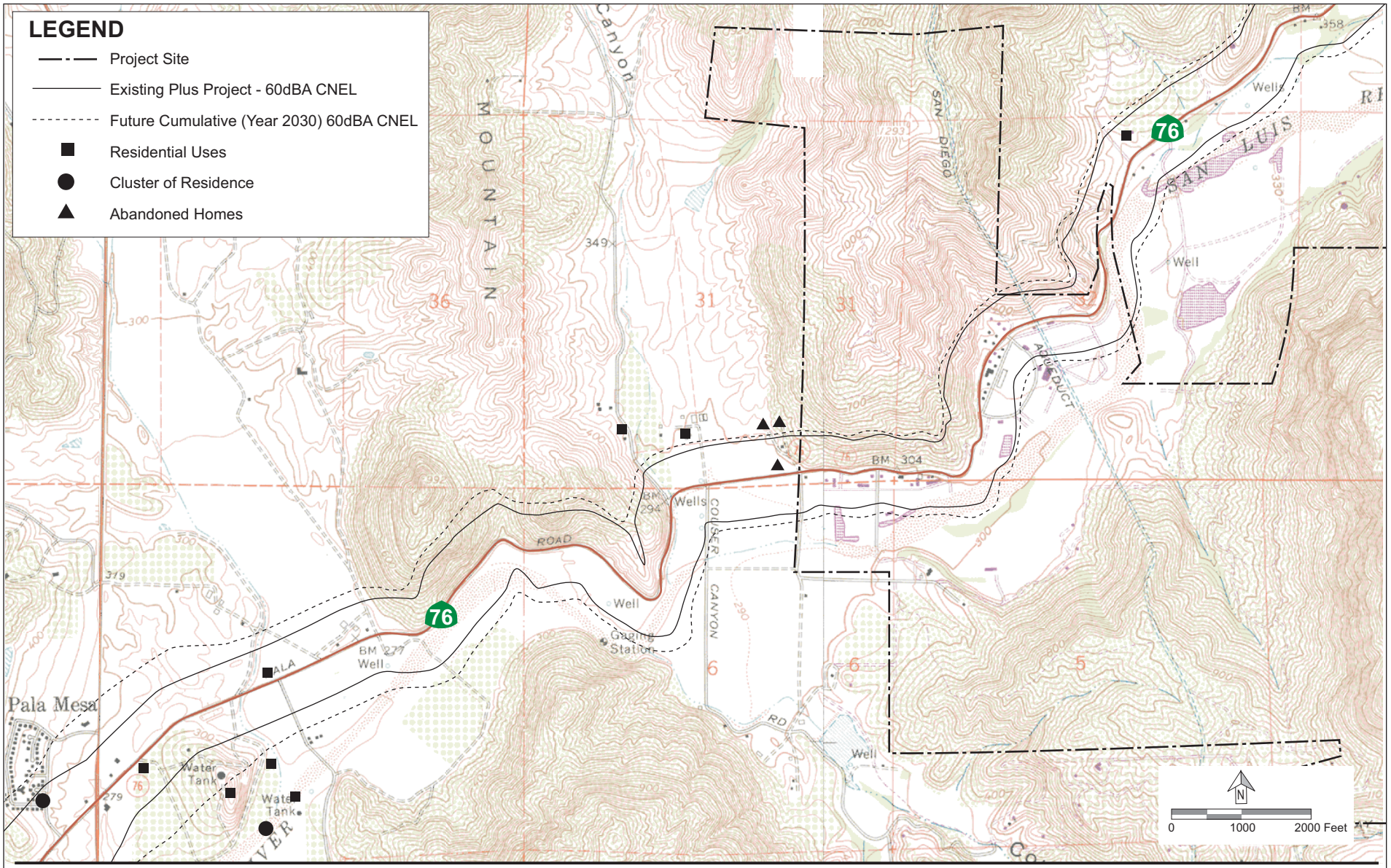
Column 3 of Table 4.6-5 shows the incremental changes in future roadway noise compared to existing noise levels that are attributable to the project in combination with traffic from cumulative development in the area. Cumulative noise increases to segments of SR 76 range from 0.6 to 2.9 in the near-term and from 1.2 to 5.4 dBA in the 2030 scenarios.

Table 4.6-6 presents the cumulative future noise levels with the proposed project at 100 feet from the right of way of each of the roadways, as well as estimated distances to the 60, 65 and 70 CNEL contours. Exhibit 4.6-5 illustrates the approximate location of the 60 CNEL contour for the cumulative project condition. These projections do not take into account any barriers or topography that may reduce noise levels.

Column 2 of Table 4.6-6 shows that future cumulative noise levels along SR 76, I-15, and Old Highway 395 would be in excess of 70 CNEL. Only Rice Canyon Road north of SR 76, Couser Canyon Road south of SR 76 and Pala Temecula Road north of SR 76 would experience noise levels below the 60 CNEL standard.

Although the majority of the noise on most of the area roads would come from other traffic sources, the proposed project would contribute to the cumulative noise levels along all the roadways that serve the project. The 60 CNEL contour along SR 76 from west of I-15 to east of the proposed access road ranges from 601 to 1088 feet from the right-of-way (Table 4.6-6). As noted in the 2003 DEIR, there are a cluster of exiting residences that would be located

[13] *Personal communication between the applicant and William Pankey, February 2007.*



NOTE: 1) Noise contours are based on an attenuation rate of 4.5 dB per doubling of distance. Additional noise attenuation from buildings, foliage, and local topography are not included.

2) The existing residences on the project site are not shown since they would be removed as part of project implementation.

Source: USGS Quadrangle & PCR Services Corporation, 2006

PCR

Exhibit 4.6-5
Existing Plus Project and Future Cumulative (Year 2030) 60dBA CNEL

TABLE 4.6-6
ESTIMATED FUTURE CUMULATIVE TRAFFIC-RELATED NOISE LEVELS WITH THE PROPOSED PROJECT

HIGHWAY/ROAD SEGMENT	ESTIMATED FUTURE CUMULATIVE NOISE LEVELS @ 100 FT FROM RIGHT-OF-WAY (CNEL, DBA)	ESTIMATED DISTANCE TO CNEL CONTOUR FROM RIGHT-OF-WAY (FEET)[a]		
		70 CNEL	65 CNEL	60 CNEL
SR 76				
West of Highway 395	73.2	174	393	864
East of Highway 395	74.0	198	444	974
West of I-15	74.0	198	444	974
East of I-15	74.7	223	497	1088
Pankey Road to Rice Canyon Road	72.5	154	349	770
Rice Canyon Road to Couser Canyon Road	72.2	147	334	736
Couser Canyon Road to Access Road	71.5	130	298	660
East of Access Road	70.9	118	271	601
West of Pala Temecula Road	70.9	118	271	601
Interstate 15				
North of SR 76	79.1	500	1,113	2,432
South of SR 76	79.6	542	1,203	2,626
Old Highway 395[b]				
North of SR 76	72.4	143	309	666
South of SR 76	72.4	143	309	666
Landfill Access Road				
South of SR 76	65.8	52	112	242
Rice Canyon Road[b]				
North of SR 76	58.3	RW	RW	77
Couser Canyon Road[b]				
South of SR 76	53.5	RW	RW	RW
Pala Temecula Road[b]				
North of SR 76	56.5	RW	RW	59

[a] The estimated noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. In addition, all CNEL contour distances were calculated based on the existing right-of-way for the individual roadway segment. This methodology allows for a direct comparison of potential noise impacts.

[b] No project traffic occurs on this roadway segment. Therefore, traffic noise levels along this segment are provided from Table 4.6-3 of the 2003 Draft EIR.

Source: PCR Services Corporation, 2006

within the future cumulative 60 CNEL contour of SR 76 in year 2030 between I-15 and the western property boundary. These residences would be adversely impacted by cumulative traffic noise. Future noise levels are likely to increase slowly over the years rather than immediately. This problem is a regional problem due to the existing, approved and future development throughout the region, and would occur with or without the project.

The peak hour L_{eq} noise levels are provided in Table 4.6-7 to assess indirect impacts to biological resources from project-generated traffic. The peak hour L_{eq} is currently as high as 70.8 dBA at a distance of approximately 100 feet from the right-of-way of SR 76 without the project. Areas closer to the roadway would be exposed to peak hour traffic noise levels greater than 70 dBA. Distances from the roadway right-of-way to the 70, 65, and 60 dBA contours are listed on Table 4.6-7.

The existing plus project generated peak hour L_{eq} is also provided in Table 4.6-7. In the existing plus project scenario, the peak hour L_{eq} would be as high as 72.0 dBA at a distance of 100 feet on either side of the roadway right-of-way. The project would increase the traffic noise levels by 0.1 to 1.2 dBA on various segments of SR 76. The impacts from traffic noise to biological resources and recommended mitigation measures are provided in Section 4.9 Biological Resources.

Noise Impacts to Maranatha School and Along Recycled Water Haul Route

During intermittent periods when project operations are occurring simultaneously with the creation of new cells, approximately 89 recycled water trucks will utilize Maranatha Drive over the 11 hours of daily project operations. However, to avoid any potential safety impacts to student, parents, or teachers at the Maranatha School, recycled water trips using Maranatha Drive will be prohibited during the period when school opens from 6:45 A.M. to 8:15 A.M. and at the end of the school day from 2:30 P.M. to 4:15 P.M. on days when the school is in session. During the remaining 7.5 hours of project operations, hourly truck traffic would be approximately 12 trucks per hour. Roadway noise impacts along Maranatha Drive were evaluated based on the Federal Highway Administration (FHWA) roadway traffic noise prediction model (RD-77-108). Based upon peak daily traffic expected on Maranatha Drive, morning and afternoon school peak hour traffic noise along Maranatha Drive would be approximately 59.4 dBA L_{eq} and 57.3 dBA L_{eq}. Traffic noise on Maranatha Drive during the school non-peak hours which will include recycled water trips would be approximately 58.0 dBA L_{eq} (PCR, 2007). The equivalent 24-hour noise level would be 55.9 dBA CNEL.

The County of San Diego has established noise standards for new residential developments impacted by transportation noise sources like roadways. The noise standards are 60 CNEL for private outdoor living areas (e.g., rear yards) and 45 CNEL for indoor noise sensitive areas. The Noise Element of the San Diego County General Plan provides an acceptable interior noise level for school classrooms as a one-hour average sound level of 50 dBA. Considering a 20 dB reduction in interior noise levels from exterior sources for typical building construction with windows closed,[14] the average interior residential and classroom noise level would be approximately 39.4 dBA L_{eq} during the school A.M. peak hour and 38.0 dBA L_{eq} during a non-peak hour. Outdoor noise levels would be below 60 dBA L_{eq} at all times. Since the hourly L_{eq} values are less than the applicable standards, CNEL noise levels would also be well below those standards. In comparison to the County's standards, no significant traffic noise impacts would occur to the school or nearby residential uses and no mitigation measures for operational noise would be required along Maranatha Drive.

[14] *California Department of Transportation, Technical Supplement to the Traffic Noise Analysis Protocol, 1998.*

As noted in the 2006 PCR study, based on estimated noise levels from existing traffic volumes, homes in close proximity to Camino del Norte and Camino del Sur are currently exposed to noise levels that exceed the County's Noise Element limit. The incremental increase on Camino del Sur and Camino del Norte would be a maximum of 0.1 dBA from project-generated trips. Project-generated traffic would extend the existing 60 CNEL contour outward from four to six feet along the recycled water haul route. Future near-term cumulative traffic would extend the existing 60 CNEL outward a maximum of 61 feet along the haul route. Because community noise environments are not immediate comparisons of noise levels, oftentimes a 3 dBA noise increase is considered as a significance threshold for human perception of noise increase. The incremental noise increase from recycled water trips falls well below that significance threshold. However, since CNEL noise levels along Camino del Sur, Camino del Norte, and I-15 exceed 60 CNEL at existing residences and the project would increase the noise level, the project would have both project-related and cumulative significant and unavoidable impacts to residents along these roadway segments.

4.6.3.3 Long-Term Landfill (Operational Noise Impacts)

[Changes to this section are underlined.]

Facilities Area

[No change is made to this section.]

Recycling Drop-Off Noise

[No change is made to this section.]

Borrow/Stockpile Area Operation

[No change is made to this section.]

Landfill Working Face

[No change is made to this section.]

Rock Crushing/Tire Shredding Operations

[No change is made to this section.]

Total Combined Landfill Noise at the Nearest Residential Property Lines

[No change is made to this section.]

Total Combined Landfill Noise Affecting The Wildlife Habitat

[Changes to the last paragraph of this section are underlined.]

TABLE 4.6-7
PEAK HOUR L_{EQ} AND TRAFFIC NOISE CONTOUR DISTANCES
EXISTING AND YEAR 2030 WITH AND WITHOUT THE PROJECT[a]

ROADWAY	SEGMENT	PEAK HOUR L_{EQ} @ 100 FEET, DBA	APPROXIMATE DISTANCE TO PEAK HOUR L_{EQ} CONTOUR FROM RIGHT OF WAY OF ROADWAY (FEET) [b]		
			70 DBA	65 DBA	60 DBA
FUTURE YEAR 2030 WITH PROJECT					
SR 76	I-15 to Pankey Rd	76.0	274	608	1,326
	Pankey Rd to Rice Cyn Rd	73.9	194	435	954
	Rice Cyn Rd to Couser Cyn Rd	73.9	194	435	954
	Couser Cyn Rd to Access Rd	73.0	166	376	827
	East of Access Rd	72.1	143	326	719
FUTURE YEAR 2030 WITHOUT PROJECT					
SR 76	I-15 to Pankey Rd	75.5	254	565	1,235
	Pankey Rd to Rice Cyn Rd	73.1	170	384	845
	Rice Cyn Rd to Couser Cyn Rd	73.1	170	384	845
	Couser Cyn Rd to Access Rd	72.0	141	321	710
	East of Access Rd	72.0	142	323	712
EXISTING PLUS PROJECT					
SR 76	I-15 to Pankey Rd	71.8	1365	310	686
	Pankey Rd to Rice Cyn Rd	71.8	136	310	686
	Rice Cyn Rd to Couser Cyn Rd	71.8	136	310	686
	Couser Cyn Rd to Access Rd	72.0	142	323	713
	East of Access Rd	70.9	117	270	600
EXISTING					
SR 76	I-15 to Pankey Rd	70.4	108	250	556
	Pankey Rd to Rice Cyn Rd	70.4	108	250	556
	Rice Cyn Rd to Couser Cyn Rd	70.4	108	250	556
	Couser Cyn Rd to Access Rd	70.8	115	264	586
	East of Access Rd	70.8	116	267	593

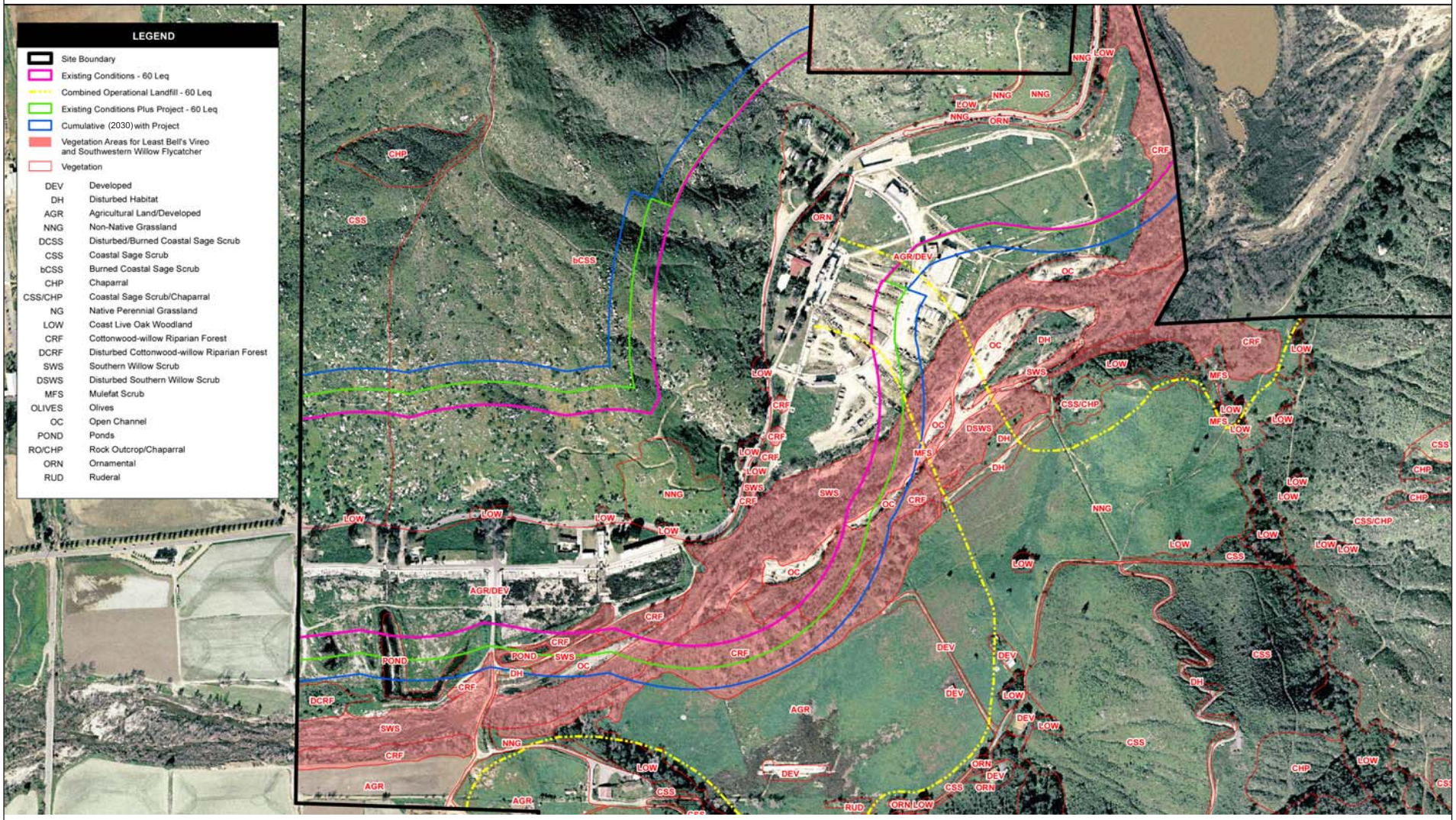
[a] Noise calculations based on traffic data from Darnell & Associates, 2006.

[b] All CNEL contour distances were calculated based on the existing right-of-way for the individual roadway segment. This methodology allows for a direct comparison of potential noise impacts.

Source: PCR Services Corporation, 2006

The total combined landfill noise affecting wildlife habitat has been reexamined by URS based upon the updated noise report completed by PCR Services Corporation. Exhibit 4.6-6 indicates the approximate location of the 60 L_{eq} contour for the total combined landfill noise affecting wildlife habitat based upon these updated studies. The analysis of noise impacts on wildlife habitat and recommended mitigation measures to reduce these noise levels to a level of insignificance are contained in Section 4.9.3.1 of the Revised Partial Draft EIR.

[No other changes are made to this section.]



N

250 0 250 500 Feet

SCALE: 1" = 500' (1:6,000)

Exhibit 4.6-6
Total Combined Landfill Noise Affecting Wildlife Habitat

Sources: AirPhoto USA (aerial, 2005), HELIX (Project Boundary, 1999), PCR (Noise Information), URS (Vegetation, 2005)

Estimated Total Combined Landfill CNEL Noise Levels

[No change is made to this section.]

4.6.3.4 Blasting Vibration Impacts

[No change is made to this section.]

4.6.3.5 Site Closure Impacts

[No change is made to this section.]

4.6.3.6 Relocation of the First San Diego Aqueduct Project Option

[No change is made to this section.]

4.6.4 MITIGATION MEASURES AND PROJECT DESIGN FEATURES

[No change is made to this section.]

4.6.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

[Changes to this section are underlined.]

The project's design and the mitigation measures identified in Section 4.6.4 would reduce the construction and operational noise and vibration impacts to adjacent sensitive receptors to a level of less than significant, with the exception of noise from project-generated traffic. The existing noise levels at a cluster of residences located along SR 76 exceed the County's standard of 60 CNEL without the project. Project-generated traffic would increase noise levels by 0.0 to 0.6 dBA. While sound walls could reduce the project's contribution of noise levels to a level of insignificance, because the sound wall would need to be installed on property that is not owned by the applicant and the property owner objects to the installation of a sound wall, the mitigation measure is considered infeasible. Therefore, because the site is within a corridor that has noise levels that exceed the County standard and the project would contribute to a degraded noise environment and mitigation measures are not assured, the project would result in a significant and unmitigable noise impact from traffic.

In addition, cumulative noise impacts would occur, with or without the project implementation, because the cluster of homes located along SR 76 would be within the near-term and year 2030 60 CNEL noise contour. While sound walls could reduce the project's cumulative contributions at these locations to a level of insignificance, because the applicant does not own the property and it is not known if residents may object to a sound wall, the mitigation is considered infeasible. However, a mitigation measure has been provided that the applicant contribute a fair share contribution for the construction of a sound wall if Caltrans determines that such a wall is feasible to install in the right-of-way for the future widening for SR 76. While this measure could be considered a fair share contribution under CEQA Guidelines 15130(a)(3), given the uncertainty of its implementation, this section concludes that the project would contribute to a

cumulative traffic noise impact to these residences on SR 76. Accordingly, the project would result in a significant and an unmitigable noise impact from both project traffic and cumulative traffic to all residences located within the 60 CNEL noise contours on SR 76.

Furthermore, noise levels along Camino del Sur, Camino del Norte, and I-15, which constitutes a portion of the haul route for recycled water trucks between the reservoir site and the landfill site, exceed 60 CNEL at existing residences. While the incremental noise increase from recycled water trips would fall well below the significance threshold, since CNEL noise levels along Camino del Sur, Camino del Norte, and I-15 exceed 60 CNEL at existing residences and the project would increase the noise level, the project would have both project-related and cumulative significant and unavoidable impacts to residents along these roadway segments.

4.9 BIOLOGICAL RESOURCES

This section contains the following revisions to the 2003 Draft EIR:

- *Contains a new analysis of project traffic noise impacts to wildlife resources*
- *Reanalyzes project impacts to upland arroyo toad habitat and project impacts to vegetation communities based on a 2006 biological technical report prepared by URS*
- *Revises mitigation measures for biologic impacts to comply with Section 5R of Proposition C and the updated biological technical report.*

[Changes to this section are underlined.]

This section describes the existing biological resources for the landfill site, the potential impacts resulting from development of the landfill and, recycled water and ancillary facilities, and mitigation measures proposed to minimize significant impacts. This section is summarized from the biological technical report prepared by HELIX Environmental Planning, Inc. (HELIX 2002) that is provided in Appendix L of the 2003 Draft EIR and the 2006 (revised 2007) Biological Technical Report of URS attached to this Revised Final EIR as Appendix B. This section also incorporates the findings from the Year 2000 biological surveys for threatened and endangered species and subsequent focused planning surveys including recent surveys completed by URS. The 2006 Biological Technical Report, which includes the updated and modified Wetland Mitigation and Habitat Enhancement Plan, is provided in Appendix B of the Revised Final EIR.

4.9.1 EXISTING SETTING

[No change is made to this section.]

4.9.2 SIGNIFICANCE CRITERIA

[No change is made to this section.]

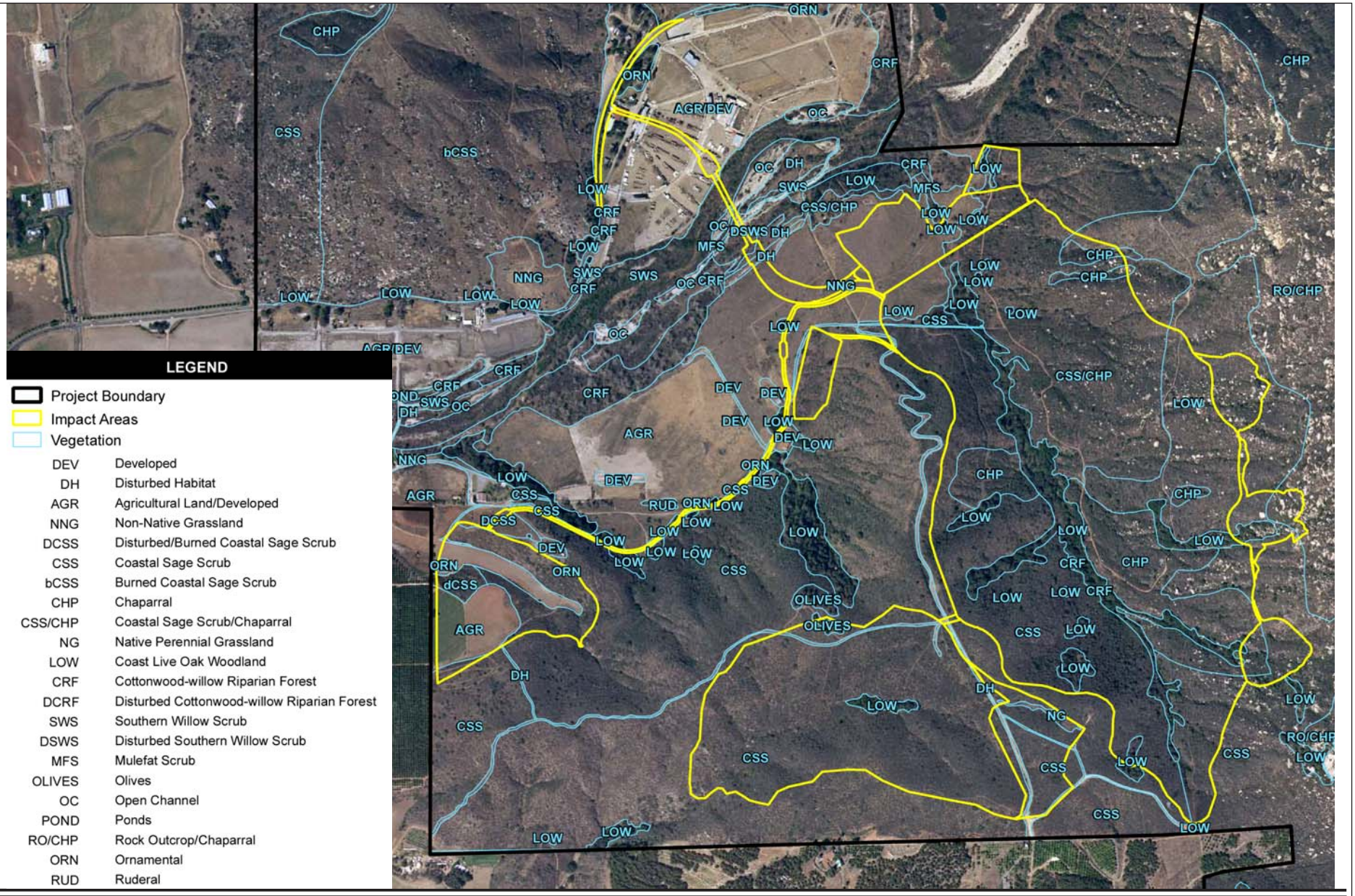
4.9.3 POTENTIAL IMPACTS

4.9.3.1 Direct/Indirect Impacts

Sensitive Vegetation Communities

[Changes to this section are underlined.]

The following sensitive resources would be significantly impacted by the landfill project: 170.8 acres of coastal sage scrub, 51.5 acres of coastal sage scrub/chaparral, 1.7 acres of disturbed coastal sage scrub, 22.6 acres of coast live oak woodland, 27.4 acres of chaparral, 0.6 acres of native perennial grassland, 15.8 acres of non-native grassland, 0.4 acres of southern willow scrub, 0.4 acres of disturbed southern willow scrub, 0.2 acres of cottonwood-willow riparian forests, and 0.2 acre of open channel (Table 4.9-8). The areas of impact to vegetation resources are depicted in Exhibit 4.9-3. Exhibits 4.9-3a and 4.9-3b contained in the 2003 Draft EIR have been replaced with Exhibit 4.9-3 of the Revised Final EIR



N

500 0 500 Feet

SCALE: 1" = 1000' (1:12,000)

Exhibit 4.9-3
Vegetation Impacts Map

Sources: Lenska (aerial, 2002), Herzog (2004 Bridge design), Nolte & Associates (bridge grading, 2005), URS (Vegetation, 2005)

Direct significant impacts to sensitive vegetation communities from San Diego Gas & Electric access road improvements are currently estimated at 0.5 acre. The vegetation community affected would be coastal sage scrub.

Non-sensitive Vegetation Communities and Developed Land

Implementation of the landfill project would result in the direct loss of 0.3 acres of olives and 0.4 acres of ornamentals. None of these remaining vegetation communities is under immediate threat from development, is considered critical habitat for federally- or state- listed species, nor receives agency protection. Therefore, impacts to these communities would be adverse but not significant.

In addition, the following non-sensitive vegetation communities and developed land would be directly impacted by the landfill project: disturbed habitat and agricultural land. These lands contribute very little to the biological diversity of the region and received no agency protection. Therefore, direct and indirect impacts to these lands would be less than significant.

Table 4.9-4 contained in the 2003 Draft EIR has now been replaced with Table 4.9-8 of the Revised Final EIR.

[No other changes are made to this section.]

Areas Subject to ACOE and CDFG Jurisdiction

[The last paragraph of this section is new.]

The U.S. Army Corps of Engineers (2004) confirmed a jurisdictional delineation of waters of the United States, including potential wetlands, within the potential project impact areas, that was prepared by URS (2004). Jurisdictional waters of the U.S. bounded by an Ordinary High Water Mark (OHWM) and adjacent wetlands only occur along the San Luis Rey River within or near project impact areas. Impacts on jurisdictional waters of the U.S. and jurisdictional waters of the State that are defined by an OHWM will only occur within the landfill project area as a result of constructing the bridge crossing of the San Luis Rey River from the permanent discharge of dredged or fill materials in 0.002 acres of riparian wetland and the temporary disturbance of 0.368 acres of riparian wetland (the 0.368 acres of temporary impact area will be revegetated upon completion of the bridge).

Columns 2 and 3 of Table 4.9.5 of the 2003 Draft EIR are no longer to be considered in assessing impacts to areas subject to ACOE jurisdiction.

[No other changes to this section.]

Plant Species

[Changes to this section are underlined.]

Locations of sensitive plant communities in relation to project features are shown in Exhibit 4.9-3. The approximate number of individuals is used for assessing the overall magnitude of an impact rather than for describing the precise population size.

Rainbow Manzanita

[No change is made to this section.]

Engelmann Oak

[No change is made to this section.]

Prostrate Spineflower

[No change is made to this section.]

Animal Species

[A new second paragraph to this section is added.]

As noted in Table 3-6 of the 2003 Draft EIR, the project would be required to obtain one or more permits authorizing the take of federal or state endangered or threatened species. This authorization would be obtained through a combination of the following permits or actions: a consultation by the U.S. Fish & Wildlife Service under Section 7 of the Federal Endangered Species Act or a permit issued by the U.S. Fish & Wildlife Service under Section 10 of the Federal Endangered Species Act; a Streambed Alteration Agreement entered into with the California Department of Fish and Game under Section 1600 et seq. of the California Fish and Game Code; a permit issued by the California Department of Fish and Game under Section 2081 of the California Endangered Species Act; and a County Habitat Loss Permit.

[No other changes to this section.]

Arroyo Southwestern Toad

[All of this section is new although some of the discussion appeared in this section of the 2003 Draft EIR.]

Direct impacts potentially resulting in direct loss of individual arroyo toads and/or arroyo toad habitat could occur in association with construction of the landfill and related facilities; and construction of the access road/bridge. The final biological technical report completed by Helix in 2002 which combined survey data gathered since 1989 did not report arroyo toads as occurring further than approximately 0.5 miles from the San Luis Rey River. Arroyo toad surveys completed by URS in 2005 did not detect arroyo toads in the uplands beyond the San Luis Rey River floodplain. Project impacts to upland arroyo toad habitat are discussed in detail in Section 4.9.3.6.

Direct impacts resulting in the loss of approximately 0.368 acres of toad riparian breeding habitat would occur from construction of the bridge. Only 0.002 acre of this would be permanent impact due to the bridge pilings. These impacts would be significant.

An updated analysis of project impacts on upland arroyo toad habitat completed by URS in 2006 indicates that project impacts on potentially suitable arroyo toad upland habitat based on NRCS soil data is 17.5 acres. However, many portions of this 17.5 acres actually are unsuitable for arroyo toad burrowing because of local soils conditions, and the 17.5 acres is an overestimate of actual suitable arroyo toad upland habitat impacts. The updated analysis completed by URS indicates that the project will impact 10.5 acres of suitable arroyo toad upland habitat. Although URS has determined that the project would actually impact approximately 10.5 acres of suitable upland arroyo toad habitat, this Revised Final EIR has conservatively assumed an impact to 17.5 acres in establishing mitigation measures for the project. This issue is discussed in more detail in Section 4.9.3.6.

Traffic on the access road, haul road to Borrow/Stockpile Area A and the low-flow crossing (used only during initial construction) could cause new (access road) and increased (haul road and low-flow crossing) road kill. The potential loss of individual toads from road kill would be significant.

In addition, direct loss of individual toads could occur in association with proposed landfill project mitigation measures to create, restore and/or enhance riparian habitats and riparian/upland transition habitats on the landfill site. However, such restoration activities would positively affect the San Luis Rey River and the species that depend on it, including the arroyo toad. The USFWS (1999c) has indicated that in the Final Recovery Plan for the arroyo toad species the short-term negative affects to individual toads from such activities may be offset by the long-term positive affects of implementing a habitat enhancement program. Simply removing grazing within toad habitat (such as is part of initial landfill project construction) has been associated with dramatic recovery of an arroyo toad population (USFWS 1999c). The USFWS (1999c) has identified the elimination of grazing within arroyo toad habitat as a recovery task for the species. Therefore, although significant impacts to the arroyo toad could occur from habitat creation and restoration activities, the overall benefit to the species would outweigh the potential loss of individual toads and would mitigate the potential impacts to a level of insignificance.

Water quality in the San Luis Rey River is a potential long-term issue for the landfill project that could indirectly affect the arroyo southwestern toad. However, during initial landfill construction, the manure associated with the Verboom Dairy would be removed, greatly improving the water quality of the river. In addition, the landfill has been designed to inhibit the formation of leachate by eliminating groundwater intrusion of the refuse prism and using surface water control features and practices to minimize the infiltration of precipitation that could enter the prism and become leachate.

The landfill would include a subdrain system beneath the double composite landfill liner to divert groundwater away from the liner by gravity flow to the mouth of Gregory Canyon. It would also include a leachate collection and removal system on top of the composite liner and a

secondary leak detection and collection layer that will collect and convey any generated leachate by gravity flow in the double-wall collection tanks located on the facilities area. Surface water drainage facilities would also be installed to divert and convey stormwater flows and precipitation in a controlled manner to minimize erosion and to inhibit potential infiltration of this water into the refuse disposal area. The effectiveness of all of these project features would be regularly examined with subdrain system monitoring, groundwater monitoring, surface water monitoring, and leachate monitoring. The project's potential affects on water quality are described in more detail in Section 4.3, Hydrology, Section 4.4, Surface Hydrology and in Section 4.15, Public Services and Utilities. With all of these systems in place, potential impacts to water quality in the San Luis Rey River and to the arroyo toad would be less than significant.

Night lighting would be limited to that used for security purposes at the facilities area and would be low impact, focused, and shielded. Night lighting would not used along the access road or bridge. Therefore, potential indirect impacts to the toad from night lighting would be less than significant.

Another potential indirect impact to the arroyo southwestern toad would be the attraction of nuisance animal species to the landfill that could increase rates of toad predation and decrease the toad population. However, impacts from the potential attraction of most nuisance species would be less than significant with implementation of the project's vector control plan and placement of daily cover. Impacts from some species could occur, however, from the riprap associated with the access road bridge, as this riprap could harbor predators of the arroyo toad (USFWS 1999c). This impact would potentially be significant.

The Argentine ant (*Linepithema humile*, previously known as *Iridomyrmex humilis*) could be brought to the landfill site via the incoming waste stream. Wild Argentine ants are known to reduce native ant populations (Ward 1987, Human and Gordon 1996), and native ants are a food source of amphibians, it is not known if these ants are a direct threat to the arroyo southwestern toad (USFWS 1999c). Argentine ants are generally found in riparian areas and areas near permanently flowing water (Ward 1987; Holway 1995), both of which are already present on the landfill site. It is likely that Argentine ants have been introduced to and spread downstream of the site by past floods of the San Luis Rey River. Therefore, the landfill operation would not result in the first introduction of the species to the site. Since Argentine ants do not thrive in dry areas, this species would remain in relatively close proximity to the river and would not spread into xeric upland habitats on site. Since sources of permanently flowing water would not occur from the project, impacts from the Argentine ant due to the project would be less than significant.

Upland Reptiles

[No change is made to this section.]

Golden Eagle

[No change is made to this section.]

Other Raptors

[No change is made to this section.]

Least Bell's Vireo

[Changes to the first paragraph of this section are underlined.]

The landfill project would directly impact riparian vegetation, including 0.4 acres of southern willow scrub and 0.4 acres of disturbed southern willow scrub that serve as breeding and foraging habitat for the least Bell's vireo. Direct impacts to vireo habitat during the breeding season would be significant.

[No other changes made to this section.]

Construction Activity Noise

[No change is made to this section.]

Increased Traffic Noise

[All of this section is new, although some of the discussion appeared in this section of the 2003 Draft EIR.]

To address indirect impacts from traffic generated noise associated with landfill operations, noise modeling was conducted by PCR, in its 2006 technical report to identify the location of the existing 60 dB(A) L_{eq} noise contour for Highway 76 with the project traffic accounted for. PCR calculated noise for the access road across the San Luis Rey River. With the addition of project traffic to the existing highway, the distance that the existing 60 dB(A) L_{eq} noise contour would shift on site as a result of project traffic is approximately 127 feet west of the access road and 7 feet east of the access road. Please see Table 4.6-6 for the noise contour distances. The area of on-site indirect noise impacts is depicted on Exhibit 4.6-6. Impacts to on-site wildlife habitat affected by project noise exceeding 60 dB(A) L_{eq} were evaluated in the 2006 biological technical report. This project-related increase in noise impacts from Highway 76 would significantly impact 7.1 acres of vireo and flycatcher habitat on the landfill site consisting of 3.1 acres of cottonwood-willow riparian forest and 4.0 acres of southern willow scrub.

There is also potential vireo and flycatcher habitat off site, along SR 76 between I-15 and the project site, to be impacted by traffic noise levels produced by the project. Similar to the on site riparian habitat, habitat within the San Luis Rey River west of the site is designated critical habitat for the vireo and has been mapped as southern riparian forest by the County. Much of the area adjacent to SR 76 has been modified by agricultural fields and citrus groves. However, riparian habitat is situated within 50 feet of the roadway along two sections of the river (I.E., one mile east of I-15 and adjacent to the hairpin curve). Currently, the riparian habitat adjacent to the highway is exposed to noise levels greater than 60 dB(A) L_{eq} within 556 to 593 feet of the highway. In the existing plus project condition, noise levels due to project-generated traffic would expand the 60 dB(A) L_{eq} noise contour further into the riparian habitat off site by an

additional 130 feet from the highway. Please see Table 4.6-6 for the noise contour distances. The area of off-site indirect noise impacts is depicted on Exhibit 4.6-6. The 2006 biological technical report has evaluated biological habitat impacted by project noise levels greater than 60 dB(A) L_{eq} along SR 76 between I-15 and the project site. Approximately 12.9 acres of potential vireo and flycatcher breeding habitat would be impacted off site by indirect noise impacts associated with the landfill traffic traveling between I-15 and the project site. Therefore, the project's indirect noise impact to off-site habitat would be considered a significant impact.

Collectively, traffic-generated noise impacts both on and off the project site would impact a total of 20.0 acres of vireo and flycatcher habitat. This impact can be mitigated through the on-site creation or enhancement of 17.1 acres of vireo and flycatcher habitat and the off-site acquisition of 2.9 acres of vireo and flycatcher habitat (see MM 4.9-14). On-site creation or enhancement would take place in accordance with the procedures and standards set forth in the Wetland Mitigation and Habitat Enhancement Plan included in Appendix L of the 2003 Draft EIR. The Habitat Enhancement Plan has been updated and modified as set forth in Chapter 5 of the 2006 biological technical report.

In the future, noise levels produced by traffic along SR 76 would increase as traffic increases due to the future (cumulative) development in the area. Therefore, the project would contribute to potential indirect noise impacts to vireo and flycatcher habitat in conjunction with other projects proposed in the project area. Please see Table 4.6-7 for the noise contour distances. The area of cumulative noise impacts is depicted on Exhibit 4.6-6. The cumulative impact would be fully mitigated through the on-site creation and off-site acquisition of vireo habitat (see MM 4.9-14) and the implementation of the Wetland Mitigation and Habitat Enhancement Plan to improve the San Luis Rey River watershed on site (see MM 4.9-18). The Wetland Mitigation and Habitat Enhancement Plan would restore or enhance areas that currently contain degraded riparian habitat or are lacking natural habitat with higher quality riparian habitat that is buffered from the highway by upland plantings. Implementation of the plan would also provide increased habitat opportunities within the river corridor for southwestern willow flycatchers and vireo. Refer to Section 5.2.9.5 of the 2003 Draft EIR for additional discussion on the Wetland Mitigation and Habitat Enhancement Plan.

The Wetland Mitigation and Habitat Enhancement Plan has been updated and modified as set forth in Chapter 5 of the 2006 biological technical report. Among other things, the extent of creation or enhancement has been increased from 88 acres of upland areas and 13 acres of riparian areas to 131.4 acres of upland areas and 81.2 acres of riparian areas, for a total of 212.6 acres.

Alternatively, if the Court determines that Proposition C does not allow the use of on-site habitat creation or enhancement for purposes of mitigation, mitigation for indirect noise impacts to least Bell's vireo and southwestern willow flycatcher would be accomplished through the acquisition of 20.0 acres of off-site habitat. The 2006 biological technical report has determined that ample habitat is available within the local region of the project site as well as San Diego County to provide for preservation of the entire 20.0 acres of mitigation off-site through existing mitigation banks or newly purchased lands.

Daily Equipment Operation Noise

[No changes made to this section.]

4.9.3.2 Indirect Impacts

[No changes made to this section.]

4.9.3.3 Consistency with Natural Communities Conservation Plan

[Changes to this section are underlined.]

A special rule under Section 4(d) of the federal Endangered Species Act authorizes incidental take of the coastal California gnatcatcher in conjunction with an approved plan under the California Natural Communities Conservation Plan (NCCP) Program. This program was initiated under the NCCP Act of 1991 in an attempt to develop regional open space planning efforts designed to protect native plants and animals and their habitats in regional preserve systems. All coastal sage scrub within an area enrolled in the NCCP (in this case, the County) is considered occupied by the gnatcatcher. The 4(d) Rule requires the development of a mitigation plan to offset project impacts that meet certain criteria. A habitat loss permit application must be filed, and to be approved, the findings must be made based on the information obtained pursuant to Section 4.1.2 of the November 1993 NCCP Process Guidelines.

Based on those findings, the loss of 171.3 acres of coastal sage scrub and 51.5 acres of coastal sage scrub/chaparral combined with the losses of coastal sage scrub within San Diego County outside the Multiple Species Conservation Program (MSCP) as of May 2006 (999.05 acres), would not exceed the 5 percent allowable loss of coastal sage scrub. The long-term conservation potential of the sage scrub habitat in the project area is intermediate and the project site does not support a core population of the coastal California gnatcatcher (five or more pairs). In addition, the habitat loss associated with the project would not preclude connectivity between areas of high habitat value. The habitat loss would not have an impact on regional biological resource planning or prevent the preparation of the subregional NCCP. In fact, the project would contribute critical habitat acreage to the County's MSCP. The loss of 222.8 acres of coastal sage scrub and coastal sage scrub/chaparral habitats would not appreciably reduce the likelihood of the survival and recovery of listed species in the wild because approximately 68 percent of these habitats on site would be preserved and an additional 63.6 acres would be created on-site as part of the Wetland Mitigation and Habitat Enhancement Plan. In addition, the loss of coastal sage scrub and coastal sage scrub/chaparral habitat will not appreciably reduce the likelihood of the survival and recovery of listed species in the wild because only one individual gnatcatcher was observed on one occasion in an impact area during 10 years of surveys. The proposed loss of coastal sage scrub and coastal sage scrub/chaparral would only result from the lawful approval of a Habitat Loss Permit or the completion of a Section 7 consultation with or receipt of a Section 10(a) permit from the USFWS in accordance with the Federal Endangered Species Act. Additional detail on this rationale is provided in the 2002 biological technical report contained in Appendix L of the 2003 Draft EIR.

4.9.3.4 Site Closure Impacts

[No changes made to this section.]

4.9.3.5 First San Diego Aqueduct Relocation Option

[No changes made to this section.]

4.9.3.6 Supplemental Analysis of Project Impacts Upon Upland Arroyo Toad Habitat

[All of this section is new.]

Project impacts upon upland arroyo toad habitat have been reexamined by URS based upon both prior biological technical studies completed for the project and based upon new arroyo toad surveys completed by URS in 2005. The final biological technical report (Helix 2002) determined that the project could result in the loss of approximately 306 acres of potential toad upland habitat based upon the assumption that any upland habitat disturbance within 2.0 kilometers of the river channel on site would be significant but also concluded that when suitable arroyo toad upland habitats were considered, the potential loss of toad upland habitat used for burrowing would be reduced to approximately 32 acres. Given this apparent discrepancy between potentially impacted arroyo toad upland habitat and suitable arroyo toad upland habitat impacted by the project, URS was requested to reevaluate project impacts to suitable upland arroyo toad habitat based upon both prior biological technical reports for the project and new arroyo toad surveys completed by URS in 2005.

The final biological technical report completed by Helix in 2002 which combines survey data gathered since 1989 does not report arroyo toads as occurring farther than approximately 0.5 miles from the San Luis Rey River. Data from prior biological technical studies for the project indicate that the arroyo toad habitat is generally confined to areas that contain fine sand in the following soil types: Tujunga sand [TuB], Visalia sand loams [VaA and VaB] and Fallbrook sandy loam [FaD2]. Surveys conducted by URS in 2005 did not detect arroyo toads in the uplands beyond the San Luis Rey River flood plain as shown in Table 4.9-6 below. These surveys indicated that arroyo toads are distributed within the 0.5 miles of the San Luis Rey River where appropriate soils for their habitat are present but not in other areas of the project site.

Exhibit 4.9-5 identifies suitable habitat for arroyo toads and shows the location of arroyo toads identified on the project site from the URS surveys.

The soils present in the uplands beyond the greater San Luis River floodplain are not suitable for arroyo toad burrowing. Arroyo toads burrow into fine sands to avoid desiccation and predation. According to the NRCS soils map, the soil types present in the majority of these uplands include Acid igneous rock (AcG), Las Posas stony fine sandy loam, 30 to 65 percent slopes (LrG), Cieneba-Fallbrook rocky sandy loams (CnG2), Cieneba coarse sandy loam, 30 to 65 percent slopes, eroded (C1G2), and Cieneba very rock coarse sandy loam, 30 to 75 percent slopes (CmrG). The soil type descriptions indicate these are generally shallow soils in steep areas with a hard texture and numerous rock outcrops (NRCS 1973), which is representative of conditions onsite. URS surveys in the southern portion of the project area generally confirm the NRCS soil

TABLE 4.9-6
RESULTS OF URS 2005 ARROYO TOAD SURVEYS WITHIN THE GREGORY CANYON PROJECT AREA

Survey Date	16-Mar-05	6-Apr-05	2-May-05	17-May-05
Time Onsite	1950-2200	2120-2340	2100-2330	2040-2130
Survey Conditions	57-52°F clear, winds 0-1 mph	60-57°F, clear, winds 0-1 mph	62-60°F, Overcast, winds 0-2 mph	64°F, clear, winds 0-2 mph
No. of Arroyo Toads Detected*	4	11 to 15**	3	2
Location***	San Luis Rey River	San Luis Rey River	San Luis Rey River	San Luis Rey River

*Includes arroyo toads directly observed and detected aurally.
**A range is provided because an exact number could not be determined based on aural detection.
***Locations of observed toads plotted on Figure 3-1 of the 2006 biological technical report

Source: URS, 2005

descriptions, and observed that dense chaparral and coastal sage scrub vegetation dominates the project area. Mammal burrows were observed in these areas, and "although California toads [*Bufo boreas halophilus*] will use small mammal burrows in areas where soils are compacted, arroyo toads apparently will not." (W.E. Haas *et al. in litt.* 1998, as referenced in USFWS 1999). Therefore, the soil types present in the uplands beyond the greater San Luis Rey River floodplain should not be considered potential arroyo toad upland habitat because these areas are not suitable for burrowing.

URS conducted a GIS analysis to confirm, if possible, the 32 acres of impacts on suitable arroyo toad upland habitat stated in the 2002 Helix Final Biological Technical Report using the assumptions from the Final Biological Technical Report. The entire project impact footprint exists within two kilometers from the San Luis Rey River. The riparian habitat boundary (i.e., arroyo toad non-upland habitat) associated with the San Luis Rey River was mapped within the property using a 2002 aerial photo. This riparian habitat boundary was excluded from the URS suitable arroyo toad upland habitat acreage total. In addition to the aerial photo, property boundary, and riparian habitat boundary, the NRCS soils map (1973) for the project area, and the current project impact footprint were overlaid within the GIS layout. Areas of suitable arroyo toad upland habitat impacts were measured where the project footprint intersects with the suitable arroyo toad soil types as mentioned in the Draft EIR and Final Biological Technical Report (i.e., Tujunga sand [TuB], Visalia sand loams [VaA and VaB] and Fallbrook sandy loam [FaD2]) outside of the riparian habitat boundary. The sum of these areas totals 17.5 acres of suitable arroyo toad upland habitat impacts (Table 4.9-7). Exhibit 4.9-5 shows the location of these areas.

As shown in Exhibit 4.9-5, the mapped riparian habitat boundary contains little project impact acreage. The impact on potentially suitable arroyo toad upland habitat based on NRCS soil data

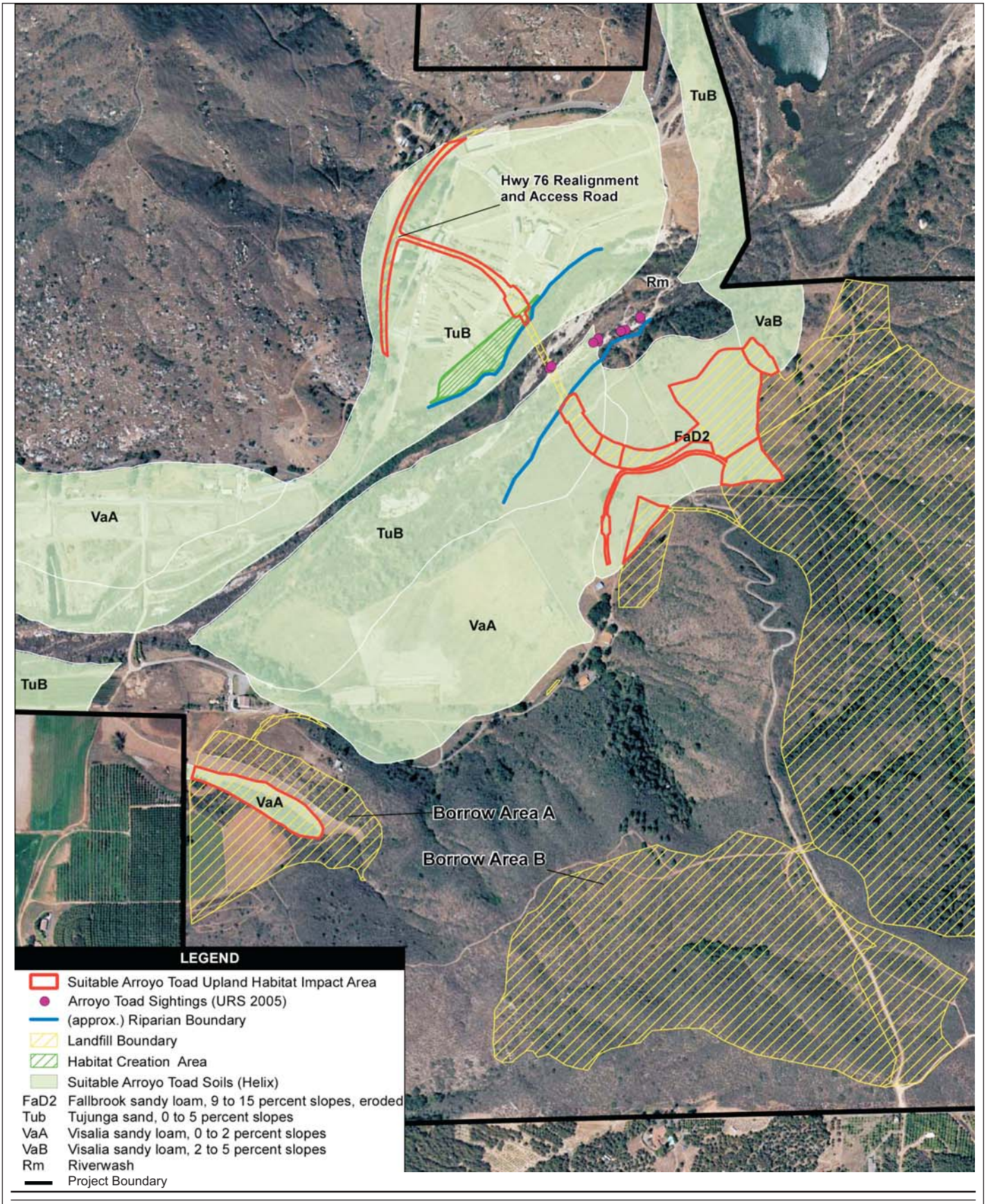


Exhibit 4.9-5
Arroyo Toad
Habitat, Sightings, Soils and
Habitat Creation Area

Sources: Lenska (aerial, 2002), SANDAG (soils),
Herzog (2004 Bridge design), Nolte & Associates (bridge grading, 2005)

is 17.5 acres. However, many portions of this 17.5 acres actually are unsuitable for arroyo toad burrowing because of local soils conditions, and the 17.5 acres is an overestimate of actual suitable arroyo toad upland habitat impacts. Unsuitable areas included in the analysis are existing paved and dirt roads and other developed areas that will be affected by the project. Specifically, a portion of State Route 76 will be realigned, and an access road through the Lucio Dairy and associated buildings will be constructed. These are developed areas that exist within the soil type shown in Table 4.9-7, and they are not suitable for arroyo toad burrowing (Exhibit 4.9-5).

TABLE 4.9-7
ACREAGE OF SUITABLE ARROYO TOAD SOIL TYPES BASED ON NRCS MAPPING WITHIN THE PROJECT IMPACT FOOTPRINT, EXCLUDING RIPARIAN HABITAT

Soil type	Soil Code	Acres
Fallbrook sandy loam, 9 to 15 percent slopes, eroded	FaD2	9.9
Tujunga sand, 0 to 5 percent slopes	TuB	3.5
Visalia sandy loam, 0 to 2 percent slopes	VaA	3.5
Visalia sandy loam, 2 to 5 percent slopes	VaB	0.6
Total:		**17.5**

Source: URS, 2006

Another area included in this analysis that is unsuitable arroyo toad upland habitat is found in Borrow Area A in the western portion of the project site (Exhibit 4.9-5). According to the NRCS soil map, a portion of Borrow Area supports Visalia sandy loam, 0 to 2% slopes (VaA), among other non-suitable arroyo toad soil types. Based on field observations in December 2005, Borrow Area A is highly disturbed from prior agricultural use. Topographically, the VaA area exists in a shallow swale that slopes west-northwest toward the San Luis Rey River flood plain. Adjacent to the swale are steeper hills supporting coastal sage scrub to the north, east, and southeast, with agriculture to the west. As of the December 2005 visit by URS, the area supported dense ruderal vegetation and the ground showed evidence of historic mechanical plowing or disking. The soils were hard, and high in fine silt in this area, and generally did not reflect the soil type description for Visalia sandy loam. Therefore, the majority of this area is not suitable as arroyo toad upland habitat based on the degree of disturbance and the fact that the native soils mapped here have been substantially modified by historic agricultural uses.

Much of the suitable arroyo toad upland habitat as indicated by the soils in Table 4.9-7 is dominated by non-native grassland and ruderal vegetation communities. These vegetation communities are generally considered unsuitable for arroyo toads because the dense grasses and ruderal species may provide a barrier to arroyo toad movement and their roots may make burrowing difficult. According to the data compiled from prior biological technical studies, it appears that the majority of the arroyo toads detected in the uplands (i.e., outside the riparian habitat) were observed on roads. In the experience of URS, arroyo toads will preferentially

move along roads and paths devoid of vegetation during their nocturnal activity period, but cannot burrow into the roads or paths unless the soils are substantially loose and soft with appropriate grain size. The existing roads on the project site are generally hard-packed soil that is not suitable for burrowing by arroyo toads.

Therefore, the 17.5 acres of potentially suitable arroyo toad upland habitat determine based on the NRCS soils maps is an overestimate of actual impacts on arroyo toads. Since the developed areas and a portion of Borrow Area A are not suitable arroyo toad upland habitat, URS has determined the project will actually impact approximately 10.5 acres of suitable arroyo toad upland habitat. The analysis is consistent with guidance published in the USFWS recovery plan for the arroyo toad (1999). Although the 2006 biological technical report has determined that the project would actually impact approximately 10.5 acres of suitable upland arroyo toad habitat, the Revised Final EIR has conservatively assumed an impact to 17.5 acres in establishing mitigation measures for the project.

The 2006 biological technical report has determined that this impact to 17.5 acres of upland arroyo toad habitat can be mitigated to a level of insignificance by on-site habitat enhancement or creation of 88 acres of upland arroyo toad habitat. This provides a mitigation ratio in excess of 5:1. On-site creation or enhancement would take place in accordance with the procedures and standards set forth in the Wetland Mitigation and Habitat Enhancement Plan included in Appendix L of the 2003 Draft EIR. The Wetland Mitigation and Habitat Enhancement Plan has been updated and modified as set forth in Chapter 5 of the 2006 biological technical report.

Alternatively, if the Court determines that Proposition C does not allow the use of on-site habitat creation or enhancement for purposes of mitigation, mitigation for the project would be accomplished through the purchase of 88 acres of off-site upland arroyo toad habitat. The 2006 biological technical report has determined that ample upland arroyo toad habitat is available within the local region of the project site as well as San Diego County to provide for preservation of the entire 88 acres of mitigation off site through existing mitigation banks or newly purchased lands.

4.9.3.7 Supplemental Analysis of Impacts to Vegetation Communities

[All of this section is new.]

The vegetation communities delineated on the landfill site depicted in the 2003 Draft EIR and the 2002 final biological technical report from Helix were reviewed by URS. The vegetation community delineation provided in the 2003 Draft EIR and the 2002 final biological technical report was transposed onto a recent aerial photograph of the project site (2002) using GIS. A 1:3600 (1"=300 ft) scaled version of this GIS map was then used by URS to verify the vegetation community delineation in the field. A final product was produced and vegetation community acreage calculations were updated based on this GIS-based vegetation map and the field verifications completed by URS biologists.

The recent biological work completed by URS confirms the accuracy of prior biological studies determining that the project will impact a total of 308.6 acres of various vegetation communities located on the project site. The more accurate GIS-based vegetation map and field work

completed by URS slightly modified impacts to various vegetation communities within the total impacted area of 308.6 acres. The mitigation ratios utilized in the 2003 Draft EIR and biological surveys were then used by URS to determine total mitigation acreage for each type of impacted vegetation on the project site. Vegetation types impacted on the project site, the mitigation-ratio, and the total mitigation acreage for each vegetation type are shown on Table 4.9-8 below. The areas of vegetation impacts are depicted on Exhibit 4.9-3.

TABLE 4.9-8
VEGETATION IMPACTS AND MITIGATION REQUIREMENTS

VEGETATION TYPE	ACREAGE OF IMPACTS	MITIGATION RATIO	MITIGATION ACREAGE
Agricultural Land	9.9		0.0
Agriculture/Developed	2.5		0.0
Chaparral	27.4	0.5	13.7
Rock Outcrop/Chaparral	1.6		0.0
Coastal Sage Scrub/Chaparral	51.5	2	103.0
Coastal Sage Scrub	170.8	2	341.6
Burned Coastal Sage Scrub	0.0	2	0.0
Disturbed Coastal Sage Scrub	1.7	2	3.4
Coast Live Oak Woodland	22.6	3	67.8
Southern Willow Scrub	0.4 [a]	4	1.6
Cottonwood-willow Riparian Forest	0.2	4	0.8
Disturbed Southern Willow Scrub	0.4 [a]	4	1.6
Open Channel	0.2 [a]		0.0
Native Perennial Grassland	0.6	3	1.8
Non-Native Grassland	15.8	0.5	7.9
Olives	0.3		0.0
Ornamental	0.4		0.0
Disturbed Habitat	2.3		0.0
Total	**308.6**	**NA**	**543.2**

[a] Revised impact and mitigation acreages based on most recent analysis of vegetative impacts conducted following completion of Revised Partial Draft EIR.
Source: URS, 2006

As indicated in Table 4.9-8, a total of approximately 543.2 acres of mitigation is required for project impacts to vegetation communities on site in the form of either creation, enhancement, or preservation off-site based upon the mitigation ratios contained in the 2003 Draft EIR and in the recent biological work of URS. The largest mitigation requirement will be for coastal sage scrub, disturbed coastal sage scrub, and coastal sage scrub/chaparral vegetation communities which results in the need for approximately 448 acres of these vegetation communities for mitigation. Impacts on coast live oak woodland will result in the need for approximately 67.8

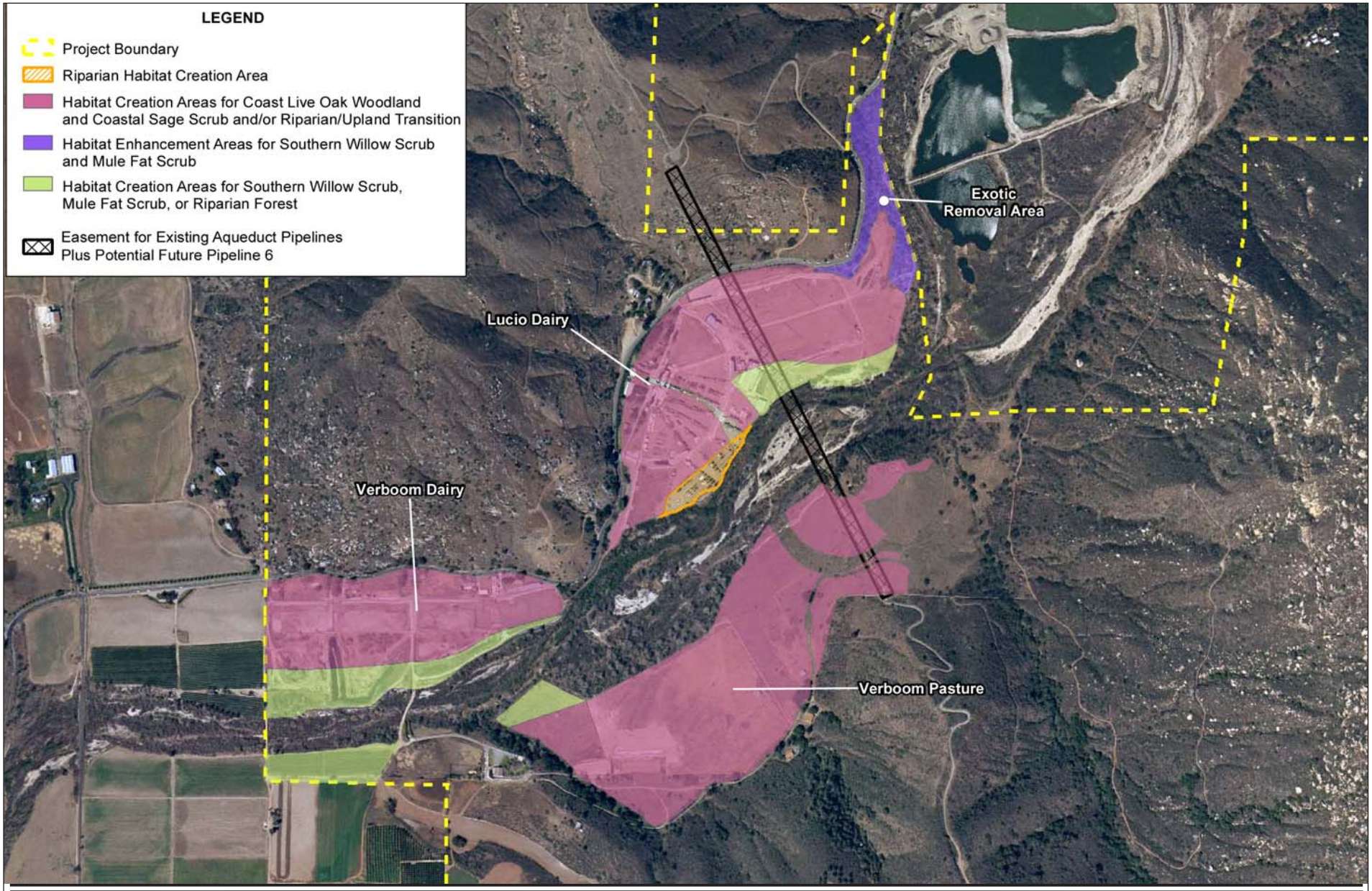


Exhibit 4.9-6
Conceptual Mitigation Areas

Sources: AirPhoto USA (aerial, 2002), Nolte & Associates (Riparian Habitat Creation Area, 2005)

acres of mitigation of this vegetation community type. Impacts on native perennial grassland will require approximately 1.8 acres of mitigation. Impacts on riparian forest and scrub vegetation communities will require approximately 4.0 acres of mitigation. Impacts on chaparral would require approximately 13.7 acres of mitigation. Impacts on non-native grasslands would require approximately 7.9 acres of mitigation.

The recent biological work completed by URS included an evaluation of potential habitat creation and enhancement areas located on the landfill site. From its GIS maps and fieldwork, URS identified 212.6 acres of potential mitigation areas located on site. This area excludes the easements for Pipelines Nos. 1 and 2, and proposed Pipeline No. 6. These available areas for habitat creation or habitat enhancement are shown on Exhibit 4.9-6. These creation and enhancement areas on site are consistent with historic vegetation communities that probably existed on site prior to farming operations that occurred on the project site.

The habitat creation and enhancement areas are generally located along the north side of the San Luis Rey River in areas that are currently developed and contain highly disturbed lands that were part of the old dairy operations on site or lands on the south side of the San Luis Rey River that were part of cattle grazing. These areas are shown on Exhibit 4.9-6 as habitat creation areas for coast live oak woodland and coastal sage scrub and/or for riparian transitional habitat. Of the 212.6 acres on site available for mitigation (outside of the pipeline easements), 155.5 acres is available for habitat creation on-site.

Of the 155.5 acres available for habitat creation on site, southern willow scrub and mule fat scrub could be created on 24.1 acres. 131.4 acres could be available for creation of mixed coast live oak woodland and coastal sage scrub, other types of transitional communities characteristic of 10-to 100-year floodplains, or a combination thereof.[15] Vegetation communities common within 10-to 100-year floodplains in the region include coastal sage scrub, coast live oak woodland, riparian forest with cottonwood (*Populus fremontii*), sycamore (*Platanus racemosa*), and morexeric willow (*Salix spp.*) trees, riparian shrub communities, and native perennial grasslands. All of the 67.8 acres of coast live oak woodland and 63.6 acres of coastal sage scrub required for mitigation could occur on-site. All of the 4.0 acres of cottonwood-willow riparian forest, southern willow scrub, disturbed southern willow scrub and/or mule fat scrub required for mitigation would occur on-site.

There are an additional 57.1 acres available on site for enhancement of southern willow scrub and mule fat scrub habitat. 7.1 acres of this 57.1 acres is available in an area described in the 2003 Draft EIR as the enhancement area. Existing habitat in this area is disturbed southern willow scrub and mule fat scrub that would be enhanced by exotic species removal, and that could serve as mitigation for southern willow scrub and disturbed southern willow scrub. The remaining 50 acres of the 57.1 acres of mitigation acreage on site is within the overall active river floodway. This is an area where exotic species control could be offered as enhancement.

On-site creation or enhancement would take place in accordance with the procedures and standards set forth in the Habitat Enhancement Plan included in Appendix L of the 2003 Draft

[15] *In order to provide clarity, the mitigations for the project will divide these 131.4 acres into 67.8 acres for coast live oak woodland and 63.6 acres for coastal sage scrub (see Section 4.9.4).*

EIR. The Habitat Enhancement Plan has been updated and modified as set forth in Chapter 5 of the URS biological technical report.

Mitigation for project impacts in the acreage amount set forth in Table 4.9-8 could be accomplished through mitigation of 135.4 acres on site[16] and 407.8 acres off site[17] (see MM 4.9-1a through MM 4.9-1g). Alternatively, if the Court determines that Proposition C does not allow the use of on-site habitat creation or enhancement for purposes of mitigation, mitigation for the project could be accomplished through the purchase of 543.2 acres of off-site vegetative habitat. The 2006 biological technical report has determined that ample vegetation habitat is available within the local region of the project site as well as San Diego County to provide for preservation of the entire 543.2 acres of mitigation off site through existing mitigation banks or newly purchased lands. In addition, Table 5.2-3 of the 2003 Draft EIR indicates that there are vast amounts of undeveloped acreage for each type of vegetation habitat required for mitigation, even assuming that all 543.2 acres would be mitigated through off-site acquisition.

Above and beyond the 135.4 acres that could be used for mitigation on-site, the updated and modified Wetland Mitigation and Habitat Enhancement Plan would provide for on-site habitat creation or enhancement over the entire 212.6 acres where such actions are feasible (outside of the pipeline easements). This requirement is independent of the requirement to mitigate for specific vegetation impacts.

4.9.4 MITIGATION MEASURES AND PROJECT DESIGN FEATURES

[No changes made to this section.]

Proposition C

[No changes made to this section.]

Project Design Features

[No changes made to this section.]

Impacts and Mitigation Measures

[Changes to this section are underlined.]

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[16] *On-site locations for habitat creations or enhancement are identified in the Revised Final EIR in Exhibit 4.9-6, Conceptual Mitigation Areas. Mitigation Measure 4.9-18 requires that on-site habitat creation and enhancement would be subject to submittal and approval by the County of a Habitat Resource Management Plan*

[17] *Current County policy does not require identification of mitigation areas prior to certification of the EIR. However, the Revised Final EIR contains a new requirement that the project will submit for County review and approval a Habitat Resource Management Plan. Mitigation areas would need to be identified to the County prior to the time impacts occur as part of the Habitat Resource Management Plan. The County has informal guidelines for the selection of mitigation sites that would be followed. Those guidelines specify that where possible mitigation lands be located within the same eco-region. The County would also require the project's continued conformance with applicable requirements of the Natural Communities Conservation Plan (NCCP).*

The final order and judgment issued by the Honorable Michael Anello on January 20, 2006 ruled that any open space offered as mitigation to significant impacts resulting from the project needed to be included as additional mitigation to Proposition C's requirement that not less than 1313 acres of the project site be dedicated as open space. Accordingly, the Court required that mitigation measures for biological resources be modified as necessary to comply with Section 5R of Proposition C. Accordingly, mitigation measures required to mitigate biological impacts of the project have now been revised to comply with Section 5R of Proposition C as required by the Court. Project impacts to upland arroyo toad habitat and vegetation communities have been re-evaluated by URS based upon a new biological technical report completed in 2006. In response to the ruling of Judge Anello and the 2006 biological technical report of URS, the following mitigation measures contained in the biological resources section of the 2003 Draft EIR have been modified as follows:

General Measure

[No changes made to Mitigation Measure 4.9a.]

[Mitigation Measure 4.9b is new.]

MM 4.9b In the event any final judgment is entered in San Diego Superior Court Case No. GIN038227 determining that the creation or enhancement of habitat on the landfill site within the 1313 acres of dedicated open space provided by Proposition C violates any provision of Proposition C, or cannot be relied upon as mitigation for purposes of compliance with CEQA because of Proposition C, then any of these mitigation measures permitting the creation or enhancement of habitat on-site shall be construed to mandate off-site acquisition of this habitat. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to off-site dedicated open space. Provided the off-site acquisition is consistent with that approved plan, the off-site acquisition may occur anywhere within the unincorporated area of San Diego County. A conservation easement shall be placed across the mitigation area to permanently protect the resources.

Vegetation Communities

[All of this section is new.]

Impact 4.9-1: *The following sensitive resources would be significantly impacted by the landfill project and related activities: 170.8 acres of coastal sage scrub, 1.7 acres of disturbed coastal sage scrub, 51.5 acres of coastal sage scrub/chaparral, 22.6 acres of coastal live oak woodland, 27.4 acres of chaparral, 15.8 acres of non-native grassland, 0.6 acres of native perennial grassland, 0.8 acres of southern willow scrub or disturbed*

southern willow scrub, 0.2 acres of open channel and 0.2 acres of cottonwood willow riparian forest.

MM 4.9-1a: Impacts to 170.8 acres of coastal sage scrub, 1.7 acres of disturbed coastal sage scrub, and 51.5 acres of coastal sage scrub/chaparral shall be mitigated at a minimum ratio of 2:1 through on-site creation or enhancement of 63.6 acres of coastal sage scrub habitat or coastal sage scrub/chaparral habitat, and the off-site acquisition of 384.4 acres of coastal sage scrub or coastal sage scrub/chaparral habitat. The final amounts of mitigation of these habitats shall be a total of 448 acres with at least 345 acres of coastal sage scrub and 103 acres of either coastal sage scrub or coastal sage scrub/chaparral habitat. The on-site creation or enhancement of this resource shall be in a dedicated open space area. Off-site acquisitions may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the coastal sage scrub habitat on site or as determined in consultation with the resource agencies.

MM 4.9-1b: Impacts to 22.6 acres of coast live woodland shall be mitigated at a minimum ratio of 3:1 by the on-site creation of 67.8 acres of coast live oak woodland. The on-site creation or enhancement of this resource shall be in a dedicated open space area. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs coast live oak woodland or as determined in consultation with the resource agencies.

MM 4.9-1c: Impacts to 0.6 acres of native perennial grassland shall be mitigated at a minimum ratio of 3:1 through off-site acquisition of 1.8 acres of native perennial grassland. The off-site acquisition may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with

the first construction that disturbs the native perennial grassland on site or as determined in consultation with the appropriate agencies.

MM 4.9-1d: Impacts to 0.4 acres of southern willow scrub and 0.4 acres of disturbed southern willow scrub shall be mitigated at a minimum ratio of 4:1 by the on-site creation or enhancement of 3.2 acres of southern willow scrub habitat. On-site creation or enhancement shall be in an area dedicated as open space. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the southern willow scrub or as determined in consultation with the resource agencies.

MM 4.9-1e: Impacts to 0.2 acre of open channel shall be mitigated through implementation of the Wetland Mitigation and Habitat Enhancement Plan described in MM 4.9-18 to restore habitat in the San Luis Rey River watershed on site.

MM 4.9-1f: Impacts to 0.2 acres of cottonwood willow riparian forest shall be mitigated at a minimum ratio of 4:1 by the on-site creation or enhancement of 0.8 acres of cottonwood willow riparian forest. On-site creation or enhancement shall be in an area dedicated as open space. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the cottonwood-willow riparian forest on site or as determined in consultation with the appropriate agencies.

MM 4.9-1g: Impacts to 27.4 acres of chaparral and 15.8 acres of non-native grassland shall be mitigated at a minimum ratio of 0.5:1 through off-site acquisition of 13.7 acres of chaparral and 7.9 acres of non-native grassland. Off-site acquisitions may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the chaparral or non-native grassland habitat on site or as determined in consultation with the resource agencies.

[Mitigation Measure 4.9-1f renumbered to 4.9-1h. No change to measure.]

Plant Species

[Changes to this section are underlined.]

Impact 4.9-2: *A total of 25 Engelmann oaks would be directly impacted as a result of the project. Since 100% of the population would be impacted, this impact would be significant.*

MM 4.9-2: A 3:1 minimum replacement acreage (based on canopy area) of Engelmann oak trees shall be created by on-site creation or enhancement of this replacement acreage within the same area designated for creation or enhancement of coast live oak woodland, if possible. Otherwise, a separate acquisition of Engelmann oak trees at 3:1 minimum replacement acreage shall be required. Any on-site creation or enhancement shall be in an area dedicated as open space. Off-site acquisitions may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. This acreage shall then be subtracted from the coast live oak woodland mitigation requirement (MM 4.9-1b) to avoid duplicate mitigation. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs Engelmann oak or as determined in consultation with the resource agencies

Animal Species

[Changes to this section are underlined.]

Impact 4.9-3: *The loss of approximately 0.002 acre of arroyo southwestern toad riparian breeding habitat from construction of the bridge would be significant.*

MM 4.9-3a: In addition to the riparian habitat creation or enhancement described in MM4.9-1d and f, implementation of the Wetland Mitigation and Habitat Enhancement Program described in MM 4.9-18 shall be undertaken to mitigate impacts to arroyo southwestern toad riparian breeding habitat.

MM 4.9-3b: The removal of toad riparian breeding habitat from riparian vegetation clearing and channel excavation for the bridge shall occur from October through December to minimize potential impacts to breeding adults (including potential sedimentation impacts to toad eggs) and dispersing juveniles.

Impact 4.9-4: *The project would result in the loss of approximately 17.5 acres of suitable arroyo southwestern toad upland habitat on the project site.*

MM 4.9-4: Impacts to the 17.5 acres of suitable arroyo southwestern toad upland habitat on site impacted by the project shall be mitigated through on site creation or enhancement of 88 acres of arroyo toad habitat. The on-site creation or enhancement of this resource shall be in a dedicated open space area. The implementation of the mitigation shall be prior to or concurrent with the first construction that impacts the upland arroyo toad habitat on site or as determined in consultation with the resource agencies.

[No changes to Impacts and Mitigation Measures 4.9-5 through 4.9-10.]

Impact 4.9-11: *Direct impacts to least Bell's vireo and southwestern willow fly catcher habitat including 0.8 acres of southern willow scrub or disturbed southern willow scrub during the breeding season would be significant.*

MM 4.9-11a: Removal of any riparian habitat shall only occur from October through December to avoid the breeding seasons of these bird species and to minimize potential impacts to the arroyo southwestern toad.

MM 4.9-11b: Impacts to vireo and flycatcher habitat shall be mitigated through riparian habitat creation as described under MM 4.9-1d. The Wetland Mitigation and Habitat Enhancement Plan described under MM 4.9-18 would also benefit these species.

MM 4.9-11c: The project applicant shall provide funding for cowbird trapping along the San Luis Rey River on the project site for a period of five years from initial landfill operation.

[No changes to Impacts and Mitigation Measures 4.9-12 through 4.9-13.]

Impact 4.9-14: *A total of 20.0 acres of vireo and flycatcher habitat would be significantly impacted by traffic noise caused by the project.*

MM 4.9-14: Indirect impacts to a total of 20.0 acres of vireo and flycatcher habitat caused by project traffic noise shall be mitigated through on-site creation or enhancement of 17.1 acres of vireo and flycatcher habitat, and the off-site acquisition of 2.9 acres of vireo and flycatcher habitat. On-site and off-site mitigation areas would not be affected by noise levels of 60 dB (A) L_{eq} or greater as a result of project-generated or cumulative traffic. Any on-site creation or enhancement shall be in area dedicated as open space. Any off-site acquisition may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or mitigation credits from a habitat manager, mitigation bank or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County

requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with construction that impacts vireo or flycatcher habitat or as otherwise determined in consultation with the resource agencies.

[No changes to Impacts and Mitigation Measure 4.9-15.]

General Indirect Impacts

[No changes made to this section.]

Cumulative Impacts

[Changes to this section are underlined.]

Impact 4.9-18: *Loss of habitats, habitat fragmentation, decreased water quality, night lighting, human activity, and the introduction of non-native plant species are cumulatively significant impacts to which the project would contribute. In addition, during the life of the landfill, cumulatively significant indirect traffic noise impacts that could affect the breeding success of endangered bird species inhabiting this portion of the river could occur. Finally, landfill operations and cell construction could be on-going throughout the Pipeline No. 6 construction period and could lead to periodic cumulative impacts.*

MM 4.9-18: The project applicant shall implement a habitat enhancement plan to improve the San Luis Rey River watershed on site as described below and within the enhancement area shown in Exhibit 4.9-6 of the Revised Final EIR in accordance with the Wetland Mitigation and Habitat Enhancement Plan set forth in Appendix L, as updated and modified.

Beyond the mitigation obligation associated with compensating for direct and indirect project impacts to vegetation communities, the project applicant for the Gregory Canyon Landfill shall be required to implement a habitat enhancement program for improvements to the San Luis Rey River watershed. In addition to the proposed open space dedication (1,313 acres), the project applicant shall create or enhance 131.4 acres of upland areas and 81.2 acres of riparian areas within the portion of the San Luis Rey River corridor contained on site (Exhibit 4.9-6). The restoration would likely be phased and would not occur all at one time.

The habitat enhancement program shall focus on the restoration of riparian and upland habitats within the San Luis Rey River floodplain on site, in the areas indicated on Exhibit 4.9-6, above and beyond the project's direct mitigation obligations for vegetation community impacts. The San Luis Rey River has been identified as one of the most easily restorable rivers in southern California (ACOE 1981). This portion of the

program shall consist of the restoration of lost and/or damaged habitat and water quality caused by the long-term agricultural use of the property and the removal of highly invasive, exotic plant species. The project applicant is proposing to remove the existing Verboom dairy operations and most structures and all equipment associated with the Verboom and Lucio dairies from the site in concert with the initial construction of the landfill. Under this enhancement program, man-made berms and weed seed banks in the river's watershed shall be excavated to restore more historic river flows and invasive, non-native plant species would be replaced with native plantings. The excavation shall be focused on bringing the ground elevations down to a level that would connect the areas hydrologically with the existing groundwater system and to create a series of terraces that taper into the existing upland habitat. The excavation would be done in a manner that would prevent adverse effects on upstream and downstream properties. All upland and drier riparian areas shall be planted with tree species known from the site and hand-seeded to initiate native plant re-establishment. Weed control and monitoring shall be implemented regularly during the first five years of the project to prevent the re-establishment of non-native plant species. The goal of the restoration shall be to provide breeding and upland habitat for endangered species and widen the vegetative buffer around the riparian corridor present on site.

The dedicated open space on-site, including the restored river corridor, shall be managed with a financial contribution provided by the project applicant. The project applicant shall work with the USFWS and the CDFG to identify a qualified conservancy or other non-profit organization to be responsible for implementing long-term management activities for the restored river. The type of management activities shall depend upon the condition of the site, the resources present, and the funds available to manage those resources. Management activities shall include restriction of vehicular and human access through the installation of fencing and signs, control of exotic species [e.g., brown-headed cowbirds and giant reed (*Arundo donax)*], control of illegal dumping and monitoring endangered species populations. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to on-site dedicated open space, or created or enhanced habitat areas.

First San Diego Aqueduct Relocation Option

[No changes made to this section.]

General Measure

[No changes made to Impacts and Mitigation Measures 4.9a and 4.9-19a.

[Changes to Mitigation Measures 4.9-19b and 4.9-19c are shown in underline.]

MM 4.9-19b: Impacts to coastal sage scrub shall be mitigated at a minimum ratio of 2:1 through off-site acquisition of 19.0 acres of coastal sage scrub. The off-site acquisition may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to on-site dedicated open space, or created or enhanced habitat areas.

MM 4.9-19c: Coast live oak woodland shall be mitigated at a 3:1 ratio by the off-site acquisition of 2.4 acres of existing coast live oak woodland of like quality. The off-site acquisition shall occur in an unincorporated area of San Diego County. A conservation easement shall be placed across the off-site mitigation area to permanently protect the resource. If possible, individual oak trees shall be salvaged from the impact area and transplanted to appropriate open space habitat on the landfill site. The implementation of this mitigation shall be prior to or concurrent with construction or as otherwise determined in consultation with the County.

[No changes to Impacts and Mitigations 4.9-19d through 4.9-19j.]

Reservoir Site

Impact 4.9-20: *Improvements at the Reservoir Site could result in impacts to the coastal California gnatcatcher if the improvements were to occur during the breeding season (February 15 through August 31).*

MM 4.9-20: If project construction activities for the improvements of the Reservoir Site are scheduled to occur during the breeding season for coastal California gnatcatcher (February 15 through August 31), three surveys pursuant to U.S. Fish and Wildlife Service protocol shall be conducted to determine the presence or absence of the species in coastal sage scrub habitat within 500 feet of the improvement. If it is determined that the species is absent, construction may proceed without restrictions. If the coastal California gnatcatcher is present within 500 feet of the improvement, no construction activities shall be allowed between February 15 and August 31, unless shielding is used to reduce construction noise levels to less than 60 dBA Leq at the species' habitat. Shielding shall be approved by a qualified acoustician. No coastal California gnatcatcher-related restrictions will be placed on construction activities outside of the coastal California gnatcatcher breeding season.

Implementation of Court's Order

[All of this section is new.]

In the event any final judgment is entered in San Diego Superior Court Case No. GIN038227 determining that the creation or enhancement of habitat on the landfill site within the 1313 acres of dedicated open space provided by Proposition C violates any provision of Proposition C, or cannot be relied upon as mitigation for purposes of compliance with CEQA because of Proposition C, then any of these mitigation measures permitting the creation or enhancement of habitat on-site shall be construed to mandate off-site acquisition of this habitat. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to off-site dedicated open space. Provided the off-site acquisition is consistent with that approved plan, the off-site acquisition may occur anywhere within the unincorporated area of San Diego County. A conservation easement shall be placed across the mitigation area to permanently protect the resources.

4.9.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

[Changes to this section are underlined.]

With implementation of the mitigation measures for significant impacts to sensitive biological resources including coastal sage scrub, coastal sage scrub/chaparral, southern willow scrub, chaparral, non-native grassland, open channel, coast live oak woodland, native perennial grassland, Engelmann oak, arroyo southwestern toad, least Bell's vireo, southwestern willow flycatcher, and golden eagle, the project impacts to sensitive biological resources would be rendered less than significant since all habitat impacted would be mitigated through creation or enhancement of habitats on site or through off-site acquisition at appropriate mitigation ratios, and precautions would be taken to avoid impacts to sensitive habitat and species. With implementation of MM 4.9-18, on-site creation or enhancement, or off-site acquisition, the project's contribution to cumulative impacts to biological resources would be less than significant.

4.11 ARCHAEOLOGICAL AND CULTURAL RESOURCES

This section contains the following revisions to the 2003 Draft EIR:

- *Contains a reference to a new analysis of project impacts upon Gregory Mountain and Medicine Rock in light of the potential future nomination and listing as historic resources under the National Historic Preservation Act discussed in Section 4.12.1.*

[Changes to this section are underlined.]

This section addresses the archaeological and historical cultural resources within the study area and summarizes the information contained in the archaeological technical reports entitled, "Significance Evaluation of Cultural Resources within the Proposed Gregory Canyon Landfill Project" prepared by ASM Affiliates, Inc. (1999), the Evaluation of Five Archaeological Sites within the Proposed Gregory Canyon Landfill Study Area and the Evaluation of the J. P. Higgins Homestead Canyon within the Proposed Gregory Canyon Landfill Study Area, prepared by RMW Paleo Associates (1999). These studies (incorporating literature, archive, historic map, and photographic research) are included in Appendix N and are on file with County of San Diego, Department of Environmental Health.

On November 4, 2005 the State Historical Resources Commission (SHPC) voted to nominate Gregory Mountain and Medicine Rock for listing on the National Register of Historic Places. The nomination was based upon the historic significance of Gregory Mountain and Medicine Rock as important cultural sites for Native Americans and upon the Native American rock art associated with Medicine Rock. Project impacts associated with these resources are discussed in detail in Section 4.12 of the Revised Partial Draft EIR. That analysis is intended to apply to both Section 4.11 and Section 4.12 of the Revised Partial Draft EIR.

The State nomination is subject to final approval by the National Park Service of the United States Department of the Interior. On March 10, 2006, the National Park Service returned the nomination to SHPC and provided a variety of comments. On the transmittal cover page, the National Park Service stated "[i]f a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS."

Nonetheless, an analysis of potential impacts arising from the nomination and listing is included in Sections 4.11 and 4.12, as it is possible that the nomination could be re-submitted and the listing could occur at some point in the future. If a listing were to occur, Gregory Mountain and Medicine Rock would be considered significant historic and cultural resources, in addition to being significant ethnohistoric resources as discussed in Section 4.12.

4.11.1 Existing Setting

[No changes made to this section.]

4.11.1.1 Regional Context

[No changes made to this section.]

4.11.1.2 Recorded Archaeological and Historical Sites

[No changes made to this section but readers are referred to Section 4.12 discussing project impacts associated with the nomination of Gregory Mountain and Medicine Rock to the National Register of Places.]

4.11.2 Impact Significance Criteria

[No changes made to this section.]

4.11.3 Potential Impacts

[No changes made to this section but readers are referred to Section 4.12 that discusses impacts associated with the nomination of Gregory Mountain and Medicine Rock to the National Register of Historic Places.]

4.11.4 Mitigation Measures

[No changes made to this section.]

4.11.5 Level of Significance After Mitigation

[Changes to this section are underlined.]

With the exception of Gregory Mountain and Medicine Rock, implementation of mitigation measures in Section 4.11.4 will reduce the potential impacts to significant/CR-eligible cultural resources to a less than significant level. However, the listing of Gregory Mountain and Medicine Rock on the National Register of Historic Places would make project impacts to both Medicine Rock and Gregory Mountain as cultural and historic resources significant and unmitigable for the reasons discussed in Section 4.12 of the Revised Final EIR.

4.12 ETHNO HISTORY AND NATIVE AMERICAN INTERESTS

This section contains the following revisions to the 2003 Draft EIR:

- *Contains a new analysis of project impacts upon Gregory Mountain and Medicine Rock in light of their recent nomination as historic resources under the National Historic Preservation Act.*

[No changes made to this section.]

4.12.1 EXISTING SETTING

[The following section is new.]

4.12.1.4 Nomination of Gregory Mountain and Medicine Rock as Historic Resources

On November 4, 2005 the State Historical Resources Commission (SHPC) voted to nominate Gregory Mountain and Medicine Rock for listing on the National Register of Historic Places. The nomination was based upon the historic significance of Gregory Mountain and Medicine Rock as important cultural sites for Native Americans and upon the Native American rock art associated with Medicine Rock Project impacts associated with these resources are discussed in Section 4.12.3.6 of the Revised Final EIR.

The nomination is subject to final approval by the National Park Service of the United States Department of the Interior ("NPS"). On March 10, 2006, the National Park Service returned the nomination to SHPC and provided a variety of comments. On the transmittal cover page, the National Park Service stated "[i]f a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS."

Nonetheless an analysis of potential impacts arising from the nomination and listing is included in Sections 4.11 and 4.12. as it is possible that the nomination could be re-submitted and the listing could occur at some point in the future. If a listing were to occur, Gregory Mountain and Medicine Rock would be considered significant historic and cultural resources in addition to being significant ethnohistoric resources as discussed in the 2003 Draft EIR.

The nominated area included all of Gregory Mountain, and sought to include 1481.72 acres.[18] Of this designated area, approximately 636 acres appear to be located on the eastern portion of the landfill site. The remaining nominated area was located on land presently owned by the Pala Band of Missions Indians (Pala) (some via land held in trust by the U.S. Government) and other small landowners in the area. The nominated area included approximately 122.7 acres of the landfill site presently included as part of the landfill footprint in the solid waste permit issued by the San Diego County of Department of Environmental Health in December 2004 and the location of the pads for the relocated SDG&E transmission facilities.

[18] *The acreage figure and the precise boundaries cannot be independently verified but are assumed to be correct for the purpose of this discussion.*

The nomination also included Medicine Rock which is located north of the landfill site on land owned by H.G. Fenton Material and currently used for sand and gravel operations. The nomination considered Medicine Rock as a significant cultural resource of the Luiseño people.

Medicine Rock (CA-SDI-313/4356) is located north of the landfill site, on land previously used for sand mining operations. Medicine Rock is located approximately 1400 feet from the facilities area for the proposed landfill at the nearest point and approximately 800 feet from the proposed landfilling operations.

The western portion of Gregory Mountain, including the peak, consisting of approximately 636 acres is located within the site boundary and is privately owned. The eastern portion of the mountain is on the Pala Indian Reservation. San Diego Gas and Electric (SDG&E) has operated major 230 kv and 69 kv electrical transmission lines that run north and south on the western flank of Gregory Mountain for many years. These are part of an electric grid system serving electricity to a number of parts of San Diego County. The landfill site includes an easement 150 feet in width running north-south through the middle of the site that includes San Diego Pipelines Nos. 1 and 2 known as the First San Diego Aqueduct. The Aqueduct easement contains two existing 48-inch pipelines located directly west of Gregory Mountain on the site. The Metropolitan Water District ("MWD") and the San Diego County Water Authority ("SDCWA") have a joint future project known as Pipeline No. 6, which will also run north-south through the project site directly west of Gregory Mountain. Pipeline No. 6 consists of 24 miles of a 9 to 10 foot diameter pipeline and 6.5 miles of a 9-foot diameter tunnel. The location of the Mount Olympus tunnel portal site is planned to be in the small canyon on the Gregory Canyon landfill site. This portal will be the tunnel contractor's main base of operation for up to five years, and will remain as a permanent access point for operation and maintenance of the tunnel.

The areas surrounding Medicine Rock and Gregory Mountain consist of a mixture of estate-density residential development, avocado and citrus estates, and several mining and commercial operations. The area east of Gregory Mountain includes the 187,000 square foot gaming and entertainment facility on the Pala Reservation, located immediately east of the project site. This commercial project includes a resort hotel, four restaurants, and a 20,800 square foot multi-purpose room used for bingo, concerts and boxing events. This resort complex is visible from Gregory Mountain. Mining uses in the area include the Palomar Aggregates Mining Operation located west of the project site and approximately 1.25 miles east of I-15. The Palomar Aggregates project includes a rock quarry and processing plant for concrete and asphalt on 36 acres of the site. This project will mine approximately 22 million tons of rock over a 20-year period and will process 4,522 tons per day of concrete, asphalt and rock. The sand and gravel mining operation of Fenton and the Calmat mining operation on the Pala Reservation, are also in the area of the two historic resources.

[No other changes to this section.]

4.12.2 IMPACTS SIGNIFICANCE CRITERIA

[No changes made to this section.]

4.12.3 IMPACTS

[No changes made to subsections 4.12.3.1 through 4.12.3.5. The following subsection is new.]

4.12.3.6 Impacts on Gregory Mountain and Medicine Rock as Historic Resources

The potential future nomination of Gregory Mountain and Medicine Rock as historic or cultural resources under the National Historic Preservation Act does not alter the analysis or conclusions that the project would result in significant and unmitigable impacts to these resources as ethno-historic resources. The 2003 Draft EIR recognizes both Medicine Rock and Gregory Mountain as significant ethno-historic resources to the Luiseño based upon the cultural resources report completed by Tierra Environmental Services included as Appendix O of the Draft EIR. Although a number of mitigation measures have been recommended for the project to minimize project impacts upon these cultural resources, the 2003 Draft EIR concludes that the project would result in significant and unmitigable impacts to both Medicine Rock and Gregory Mountain as ethnohistoric resources.

If Gregory Mountain and Medicine Rock were to be listed on the National Register of Historic Places, the project would also result in significant and unmitigable impacts to these resources as cultural and historic resources.

The area of Gregory Mountain nominated for the National Register includes approximately 636 acres of Gregory Mountain located on the landfill site including the top of Gregory Mountain. The landfill footprint and power pole pads will utilize approximately 122.7 acres of the nominated area resulting in a disturbance of a portion of the western base of Gregory Mountain. These landfilling activities and the power poles within the 122.7 acres of the nominated area would result in a significant adverse change to the western base of Gregory Mountain as a result of the planned landfilling activities. This would be a significant impact to Gregory Mountain under the CEQA Guidelines. (Guidelines §15064.5(b)(1), (b)(2)). Mitigation measures would remain in place requiring that the applicant dedicate the balance of Gregory Mountain including the top of Gregory Mountain as permanent open space and execute and convey permanent open space easement over this area permitting the Pala Band of Mission Indians to access the summit of Gregory Mountain. Funding for a new footpath and for maintenance of access to the top of the mountain would remain as specified in mitigation measures 4.12-1c and 4.12-1d. The project would also be required to postpone landfilling activities on the western slope of Gregory Mountain above the existing SDG&E transmission lines for as long as is practicably possible to minimize project impacts upon Gregory Mountain in accordance with mitigation measure MM4.12-1e. To minimize project dust and visual impacts upon Medicine Rock and Gregory Mountain, the applicant would be required to apply water on access roads, storage piles, and cleared areas every three hours during high wind periods to reduce the dust generated by vehicles and the applicant will be required to install landscaping between the landfill operations and Medicine Rock to create a dust screen. The landscape screen shall include shrubs and trees, such as manzanita and ceanothus. (Mitigation Measures 4.12-2a, 2b).

Notwithstanding these mitigation measures, and assuming the eventual listing of Gregory Mountain and Medicine Rock on the National Register of Historic Places, the impacts of the

project on Gregory Mountain and Medicine Rock as significant historic and cultural resources would be significant and unmitigable for the reasons documented in the 2003 Draft EIR.

[No other changes to this section.]

4.12.4 MITIGATION MEASURES

[No changes made to this section.]

4.12.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

[Changes to this section are underlined.]

Mitigation measures are identified to minimize impacts to the cultural resources. The implementation of mitigation measures for dust and PM_{10} would reduce the impacts to cultural resources to a level less than significant. Thus, all technical impacts including air quality, noise and aesthetics would be at a level of less than significant.

A mitigation measure is provided to preserve the ethnobotanical resources within the mitigation areas created for biological resources within the on-site dedicated open space. This measure reduces impacts to ethnobotanical resources to a level of less than significant.

Mitigation measures presented to address the impact to Gregory Mountain would increase access to the mountain and preserve the upper slopes of the mountain in open space. However, based on input from Luiseño representatives during the EIR process, the Luiseño consider the impacts of the project to their traditional use sites to be significant and adverse. To date, the Luiseño have not discussed mitigation measures with the applicant. Therefore, the mitigation measures identified in Section 4.12.4 may not mitigate potential effects to a less than significant level.

In summary, based on traditional technical measures of air quality, noise and aesthetics the impacts after mitigation are less than significant. However, the Luiseño believe that impacts of the project on their traditional use sites (Gregory Mountain and Medicine Rock) are significant. Their belief of significant impact is based on their intangible use and relationship to Gregory Mountain and Medicine Rock, which makes the use of conventional measurable performance standards to define level of significance difficult, if not impossible. Therefore, given the lack of objective standards to determine whether there would be significant effects on a culture's experience the Revised Final EIR concludes that there may be a significant impact to historical, cultural and ethnohistorical resources (Gregory Mountain and Medicine Rock) remaining after mitigation.

4.15 PUBLIC SERVICES AND FACILITIES

This section contains the following revisions to the 2003 Draft EIR:

- *Contains a new analysis of water supply for the project and the environmental impacts associated with these sources of supply.*

[Changes to this section are underlined.]

The potential impact of the Gregory Canyon Landfill project on public services and utilities involves a number of different agencies and is both site specific and general in nature. This section reviews these issues as they relate to gas and electricity service, telephone service, water and sewer service, fire protection, law enforcement, school facilities, and energy consumption. Information presented in this section was obtained from local service providers.

Geologic Associates (GLA) has completed a detailed analysis of water supply for the project and environmental impacts associated with water sources for project construction and operation which is attached to this Revised Final EIR as Appendix C (GLA, 2006 (revised 2007)). An updated noise, air quality and health risk assessment has been completed by PCR evaluating impacts caused by the use of recycled water and is attached to this Revised Final EIR as Appendix D (PCR, 2006 (revised 2007)).

[No other changes to this section.]

4.15.1 GAS AND ELECTRICITY SERVICE

[No changes made to this section.]

4.15.2 TELEPHONE SERVICE

[No changes made to this section.]

4.15.3 WATER SERVICE AND FACILITIES

[All of this section is new although some of the discussion appeared in this section of the 2003 Draft EIR.]

4.15.3.1 Existing Setting

The landfill site is within the water service jurisdiction of the San Luis Rey Municipal Water District (SLRMWD) and the Rainbow Municipal Water District (RMWD). Approximately 1,420 acres of the project site are located within the service area of SLRMWD. The remainder of the landfill site consisting of approximately 350 acres north of the San Luis Rey River is located within the service area of the RMWD. Water District boundaries on and around the landfill site are shown on Exhibit 4.15-1.

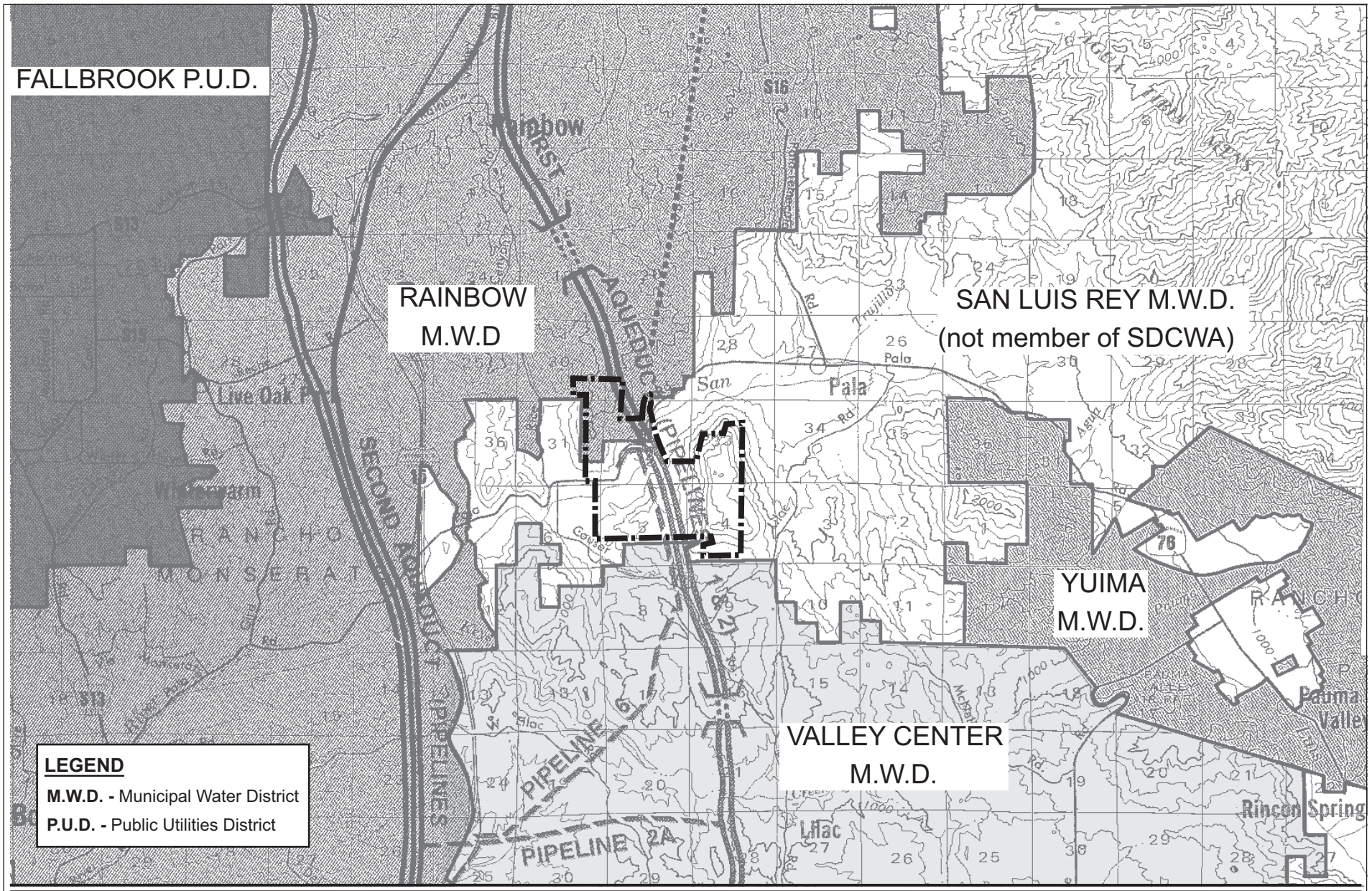

Exhibit 4.15-1
Water District Boundaries

Sources: SDCWA, 1995; PCR Services Corporation, 1999

Groundwater is presently the sole source of water to landowners within the SLRMWD area. At present, there is no imported water supply or backup water supply available within the boundaries of the SLRMWD. Landowners within the boundaries of the SLRMWD rely exclusively on groundwater wells to supply their domestic, agricultural, and commercial water demands. However, the SLRMWD is currently evaluating the feasibility of becoming a member of the San Diego County Water Authority (SDCWA) and exercising its latent powers to provide water service to customers, including the Gregory Canyon landfill. This planning is in the early stages and it is not clear at this time whether imported water service through the SLRMWD would ultimately be provided to the Gregory Canyon landfill.

Approximately 350 acres of the landfill site north of the San Luis Rey River is located within the service area of RMWD. West of the landfill site, the RMWD maintains a 16-inch domestic waterline near Rice Canyon Road, within approximately 1,000 feet of the northwest corner of the property line. The RMWD also maintains a 12-inch diameter potable waterline crossing the San Luis Rey River at Gird Road, approximately 5.5 miles east of the site. An additional 22-inch diameter potable waterline is located approximately 6.5 miles east of the site, crossing the San Luis Rey River at Ramona Drive.

4.15.3.2 The Pala Hydrologic Area and Pala Basin

The landfill site is part of the San Luis Rey Hydrologic Unit as shown on Exhibit 4.15-2. This hydrologic unit encompasses a semi-rectangular area of about 565 square miles. The San Luis Rey Hydrologic Unit has been subdivided into three hydrologic areas from east to west, which include the Warner, Monserate and Lower San Luis (Mission) hydrologic units. The Monserate Hydrologic Area occupies approximately the middle one-third of the San Luis Rey Hydrologic Unit and is the closest to the proposed landfill. The Monserate Hydrologic Area is further subdivided into three hydrologic sub-areas which include from east to west, the La Jolla Amago, Pauma and Pala Hydrologic Subareas (RWQCB, 1994). Groundwater moves from east to west, downgradient from the Pauma Basin to the Pala Basin and then to the Bonsall Basin of the Lower San Luis Hydrologic Area. The boundaries of each basin are drawn where the basement complex (hard crystaline rock) is exposed to the surface and where distinct bedrock constrictions in the San Luis Rey Valley segment the valley fill.

The State Department of Water Resources (DWR) Bulletin 118 entitled *California's Groundwater*, defines a groundwater basin as an area underlain by permeable material capable of furnishing a significant supply of groundwater to wells or storing a significant amount of water (DWR, 1975). The DWR has delineated the limits of each groundwater basin in two dimensions, developed initially based on the presence and areal extent of unconsolidated alluvial soils from area geologic maps. Well completion reports for wells in basin areas were then used to identify the top of the water table and the top of impermeable bedrock. If less than 25 feet of permeable material was present or if there was no groundwater within the permeable material, the area was eliminated from the map. The well completion reports were also used to determine if water supply wells located within the basin area were extracting groundwater from permeable materials

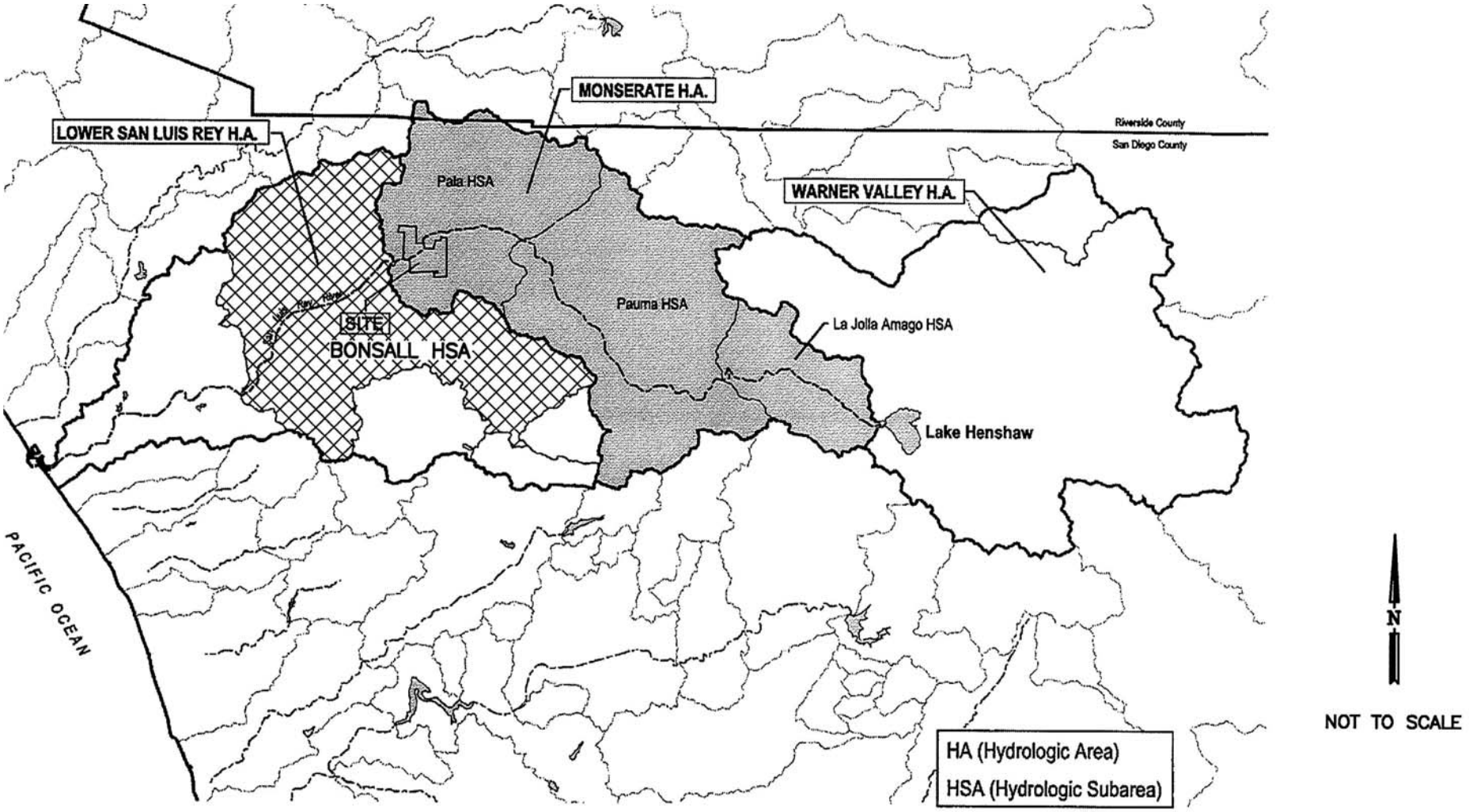

Exhibit 4.15-2
Hydrologic Planning Areas

Sources: Sandag GIS data (1997), David Evans and Associates, Inc. (1999), PCR Services Corporation (1999)

or from bedrock beneath the permeable material. If the wells only extracted groundwater from the bedrock, the area was eliminated from the map. The DWR used this criteria to develop a map of the limits of alluvial Pala Basin. The alluvial Pala Basin map prepared by DWR and its relationship to the landfill site is shown on Exhibit 4.15-3.

The Pala Basin covers approximately 4,500 acres, being nearly 8 miles long and averaging about 0.5 miles in width (NBS Lowry, 1995). The total thickness of the alluvial sediments in the Pala Basin ranges from zero at the basin margins to an excess of 165 feet, under the proposed landfill bridge crossing (GLA, 2001). A study by the USGS (Moreland, 1974) estimated the maximum depth of the alluvium in the Pala Basin at 244 feet and an average depth of 150 feet.

Due to an abundance of coarse sand and gravel deposits and minimal clay, the best recharge areas are located in the central and west-central portions of the basin (NBS Lowry, 1995). Reported well yields for alluvium in the Pala Basin from a study by NBS Lowry (1995) indicate rates of production range from 300 gpm to 1600 gpm. Specific capacities for alluvium along the axis of the basin range from 13 gallons per minute per foot (gpm/ft) to greater than 115 gpm/ft of draw down (Moreland, 1974). Hydraulic conductivities range from 750 gpd/ft^2 to 1000 gpd/ft^2 (100 to 135 feet per day).

The SLRMWD which controls the water activity in the lower third of the Pala Groundwater Basin, has calculated the current average pumping rate in the Pala Groundwater Basin to be 2400 acre-feet per year or approximately 7.8 million gallons (Owen, 1995). The SLRMWD has determined that the Pala Groundwater Basin can accommodate a safe yield of 3,350 acre-feet on a long term basis with reasonable management practices that include artificially recharging 2,000 acre-feet of water per year and adding strategically located wells to increase production capacity (Owen, 1995). The best recharge areas are located in the central and west-central portions of this basin due to the abundance of coarse sand and gravel deposits and minimal clay material (NBS Lowry, 1995).

4.15.3.3 Site Hydrology and Bedrock Wells

Between 1989 and 2004 ten geologic and hydrogeologic investigations have been completed of the project site to document both sources of groundwater on site and groundwater flow conditions. These investigations have established there are two distinct groundwater zones on the project site. An alluvial aquifer hosted by the sediment wedge at the mouth of Gregory Canyon in the area of the landfill site is shown on Exhibits 4.15-3 and 4.15-4, and a crystalline bedrock fracture flow system hosted by the fractured tonalite that forms a substrate of Gregory Canyon.

Two alluvial units have been mapped at the lower elevations near the mouth of Gregory Canyon. The younger unit, Qal-1, is formed by over bank deposits from the active San Luis Rey River channel. The older alluvial subunit, Qal-2, is a terraced remnant of older alluvium from the Gregory Canyon drainage. This alluvial basin includes the San Luis Rey River and is located on the northern portion of the project site. The limits of the alluvial Pala Basin on the project site are shown on Exhibit 4.15-3. This alluvial wedge thickens to the north until eventually it merges with the channel deposits of the San Luis Rey River.

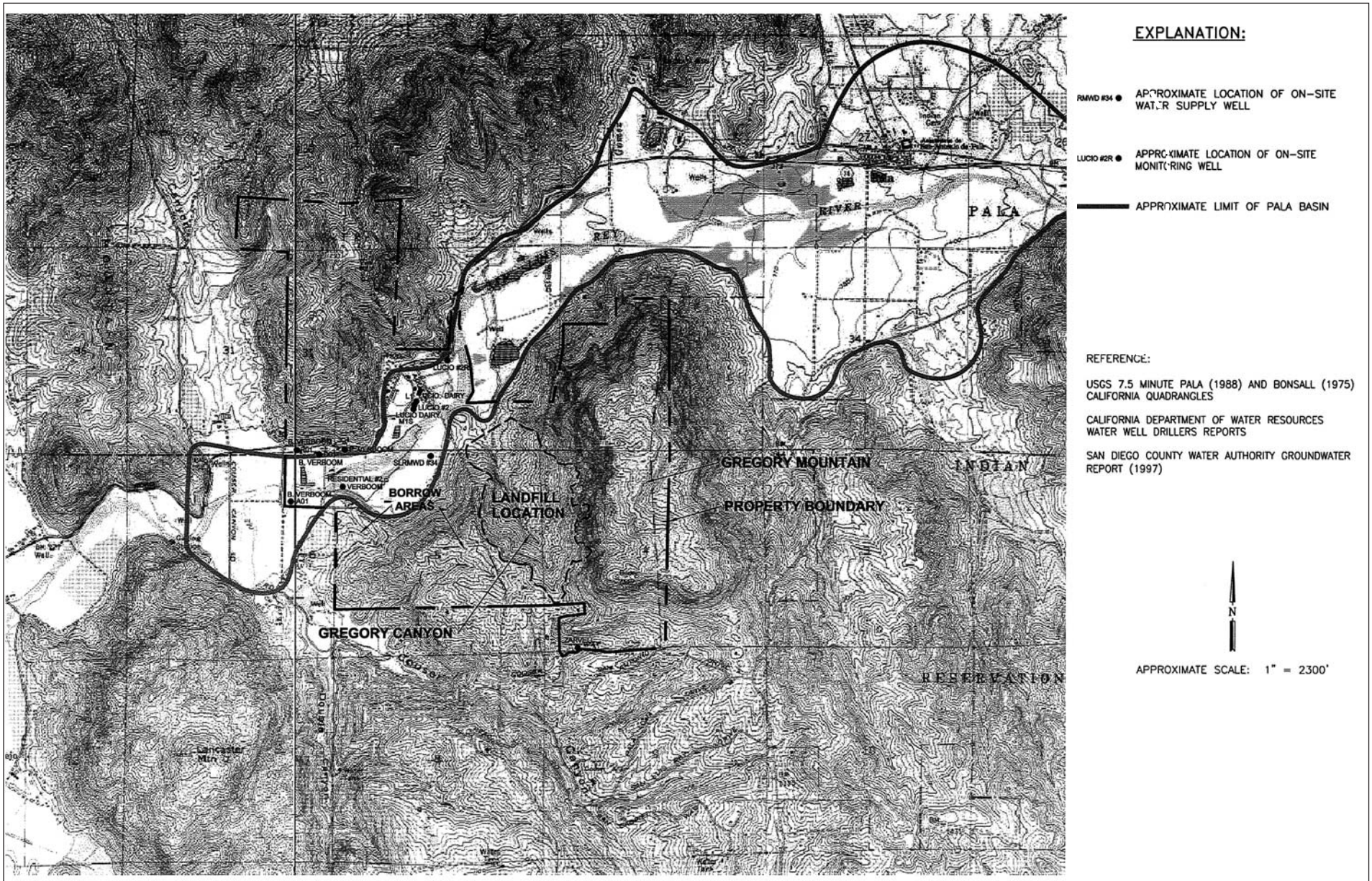

Exhibit 4.15-3
Approximate Limit of the Pala Basin in the Project Area

Source: GeoLogic Associates, 2006

Groundwater on the landfill site outside of the Pala Basin is derived from percolating groundwater through fractured bedrock. These bedrock areas on site include the Bonsall Tonalite which describes the rocks underlying the western ridge adjacent to Gregory Canyon and the Indian Mountain Leucogranodiorite underlying the eastern ridge of the site area and an intervening band of metamorphic rock along the lower slopes of the eastern ridge. Detailed descriptions of each of these bedrock units is provided in the geologic, hydrogeologic, and geotechnical investigations report prepared by GLA (November 2003). The landfill site includes a number of existing alluvial and bedrock wells as shown on Exhibit 4.15-4.

There are currently 21 bedrock monitoring wells included in the groundwater monitoring program for the site. Included in this groundwater monitoring program are 11 bedrock monitoring wells located on the north side of the landfill including wells GLA-2, GLA-3, GLA-12, GLA-13, GLA-A through GLA-G, and GMW-1. All of these wells are located in fractured bedrock outside the alluvium of the Pala Basin. Each of these wells have been encased with either steel or PVC pipe and drilled into the bedrock to ensure that their production is derived solely from percolating groundwater through fractured bedrock and not the alluvial sediments from the Pala Basin.

4.15.3.4 Project Water Demand

Water demand during the initial project construction would include water for dust control and liner construction.[19] The total estimated water usage during the construction phases is anticipated to be between 150,000 to 175,000 gallons per day (gpd) or a maximum of approximately 165 acre-feet per year.[20] A range has been provided because the water use will vary depending on weather conditions and time of year. For instance, on a rainy day, the amount of water used to control dust would be low, if any. On the other hand, very dry days would require a higher amount of water use. It is estimated that the amount of water use for dust control would range from zero to 30,000 gallons per day (gpd) or approximately zero to 28.3 acre-feet per year for dust control during initial construction. Water usage for the clay liner construction is estimated to use approximately 125,000 gpd.

Water demand during operation would be highest when landfill operation occurs simultaneously with periodic construction. Water during landfill operation and periodic construction would be required for the following activities: dust control, landscape irrigation, ancillary area usage, liner construction and fire protection (if needed). The estimated maximum water usage would be about 205,000 gpd or approximately 193 acre-feet of water per year.

During operation of the landfill, it is anticipated that 30,000 gpd of water would be used for dust control, and 10,000 gpd of water would be used for ancillary use, landscape irrigation and fire protection (if needed). Operation of the landfill would use about 40,000 gpd of water, or approximately 38 AFY.

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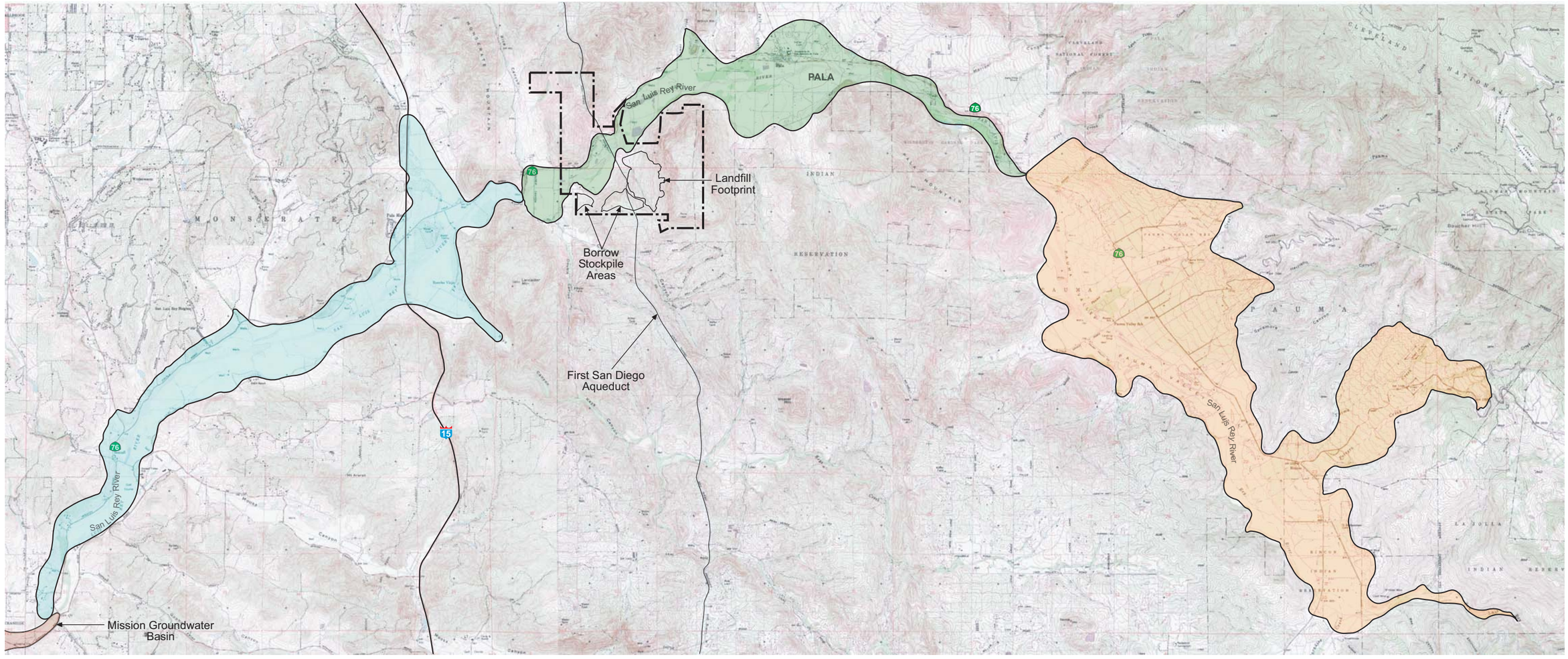
[19] *Water usage estimates were provided by Herzog Environmental, who operated all of the San Diego County landfills for a number of years.*

[20] *1 acre foot = 325,850 gallons of water.*



LEGEND

- Pauma Groundwater Basin
- Pala Groundwater Basin
- Bonsall Groundwater Basin
- Project Boundary

N

0 2 MILE

Source: Maptech, Inc. 1997; SDCWA, 1997

Exhibit 4.15-4
Groundwater Basins in the Project Vicinity

During periodic construction, it is estimated that between zero to 30,000 gpd of water would be used for dust control, zero to 10,000 gpd of water would be used for ancillary usage, landscape irrigation, and fire protection (if needed) and approximately 125,000 gpd for installation of the clay liner. During periodic construction, approximately 125,000 to 165,000 gpd of water would be used, or approximately 118 to 155 AFY. Based upon these estimates of project water demand, the highest water demand would be 193 AFY which would occur when waste is being accepted and periodic construction occurs at the same time to prepare the next cell.

4.15.3.5 Historical Water Use On Site

In April 1996, Gregory Canyon executed a written agreement with the SLRMWD. This agreement stated that historical production of water from the portion of the site within the SLRMWD totaled in excess of 470 acre-feet per year, which was used primarily for domestic, dairy and agricultural irrigation purposes. (Recital C, 1996 SLRMWD Agreement). This estimate was provided to the SLRMWD by previous landowners who occupied the portion of the site within the SLRMWD boundary at the time the agreement was executed. Historical water use on site was reevaluated following the closure of the Lucio Dairy. At that time there were 1300 head of dairy cattle on 11 occupied residences on the Verboom Dairy property. Based upon a factor provided by Peter Verboom in July 2000, water usage for the dairy was estimated at 50 to 120 like gallons per day per head of cattle, which resulted in a water use of 72.8 to 182 AFY for the Verboom dairy. Based upon a factor provided by Alice Web, Research Specialist at MWD, residential water use on site was estimated at 411 gallons per day resulting in residential water use on site of 5.1 AFY. This resulted in historical water use on site in the year 2000 of 78 to 187 AFY. This reduction in historical water use on site is attributable to cessation of the Lucio Dairy, the Embesi Orchard and residence and the Guthrie agriculture and residence.

4.15.3.6 Sources and Availability of Water Supply for Project

The two proposed sources of water for the project are recycled water and on-site percolating groundwater.

The principal source of water for the project would be recycled water purchased from the Olivenhain Municipal Water District (Olivenhain or District). The water to be purchased from Olivenhain is disinfected tertiary recycled water. Olivenhain has entered into a contract with Gregory Canyon Ltd. to provide the project with up to 230 AFY of recycled water per year for a term of 60 years. The contract permits peak daily draws of up to 244,000 gallons during its term. This exceeds the maximum expected daily project demand of 205,000 gallons by 39,000 gallons per day. Accordingly, the supply of recycled water exceeds the maximum peak day demand for the project.

Due to the level of treatment of this water, it is generally usable for a wide variety of residential, commercial and industrial purposes. The project would utilize this recycled water as needed for construction activities and project operations. The second source of water available to the project for project operations is percolating groundwater from existing bedrock wells located north of the landfill footprint. Pumping tests completed over a number years indicate that 7 existing bedrock wells on the project site denominated as wells GMW-1, GLA-3, GLA-12,

GLA-13, GLA-B, GLA-C and GLA-G have the ability to produce a safe yield of 27 gallons per minute (gpm) over the life of the project. This equates to about 38,880 gallons per day or 43.55 AFY. This closely approximates the project need of approximately 30,000 to 40,000 gallons per day for project operations. In the event that water from these bedrock wells becomes unavailable for any reason, recycled water would be used to provide all water needed for both project construction and operation.

The Olivenhain Municipal District presently provides recycled water in both the northwest and southeast areas of its service territory to a variety of agricultural, residential, golf course, and commercial users. The recycled water supply of the District is derived from both contracts with neighboring recycled water suppliers and its own recycled water system.

Recycled water is generated from Olivenhain's own wastewater treatment plant and recycled water system. This system is located in the southeastern area of the District and includes a 2 million gallon per day (MGD) treatment plant that converts wastewater to recycled water, 2 recycled water reservoirs that can store 4 million gallons of recycled water, 37 miles of recycled water pipelines, 2 pump stations, and 6 pressure reducing stations. The amount of recycled water produced by Olivenhain's treatment plant substantially exceeds its delivery commitment to the project of up to 244,000 gpd and 230 AFY. The recycled water system completed by the District has the ability to produce 2200 acre-feet per year of recycled water.

The project will purchase up to 230 acre-feet per year of recycled water from the District. The District has determined that it has adequate capacity to serve this recycled water to the project without impacting other recycled water users and has agreed to provide this recycled water to the project for a period of 60 years based upon an executed contract.

The District presently owns a fee site at its Santa Fe Valley Reservoir and Pump Station site located near the intersection of Artesian Road and Maranatha Drive west of I-15. The recycled water would be delivered to water trucks at this location and trucked to the landfill site. Once at the landfill site, the recycled water will be delivered and stored in a 20,000-gallon recycled water tank located within the facilities area of the project site.

The second source of water is on-site percolating groundwater. The project site includes a number of existing bedrock wells located outside the Pala alluvial aquifer. These wells have been drilled into the bedrock and encased with steel or PVC pipe through any overlying alluvial formations to ensure that water produced from them is derived only from percolating groundwater through fractures in the bedrock. Pump tests have been performed on a number of the bedrock wells located on the landfill site. (GLA, 1997, 2000, 2004). This pump testing has provided significant data on the yield capabilities of the bedrock wells located on the landfill site. Bedrock wells that would be utilized for project water include bedrock wells GLA-3, GLA-12, GLA-13, GLA-B, GLA-C, GLA-G and GMW-1. The location of these wells on the landfill site and their relationship to the landfill footprint are shown on Exhibit 4.15-5.

The greatest production was identified within the more deeply weathered bedrock within the center of Gregory Canyon. Pumping tests that have been completed indicate that bedrock wells GLA-3, GLA-12, GLA-13, GLA-B, GLA-C, GLA-G and GMW-2 have the combined capacity

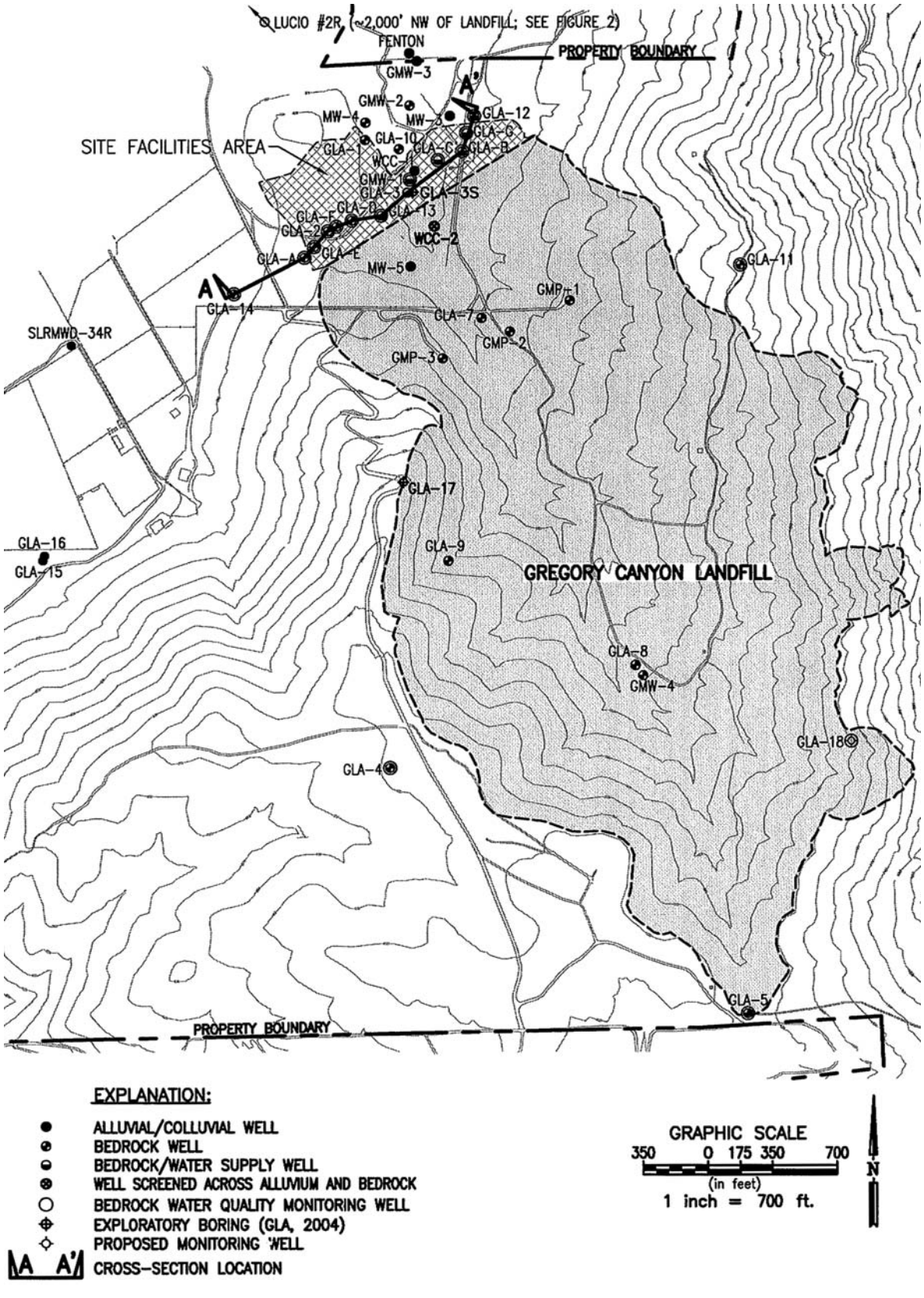


Exhibit 4.15-5
Location of Bedrock Water Supply Wells

Source: GeoLogic Associates, 2007

to produce about 43,200 gallons per day of water. Although these wells have the capacity to produce 43,200 gpd of water daily, a safe yield calculation completed by GLA indicates that the cumulative pumping rate from these bedrock wells should not exceed 27 gpm or 38,880 gpd. This equates to approximately 43.5 acre feet of water per year.

4.15.3.7 Availability of Recycled Water in San Diego County Region

The San Diego County Water Authority (SDCWA) evaluates the available supply of recycled water throughout the region as part of its Urban Water Management Plan. Available recycled water resources throughout the County was recently published in the Final Draft 2005 Urban Water Management Plan prepared by SDCWA.

In 2005 11,479 acre-feet of recycled water was produced in the San Diego region by cities and local water districts. The City of San Diego produced 3,323 acre-feet of recycled water from its North City and South Bay treatment plants. The Otay Water District produced 1,038 acre-feet of recycled water from its R. W. Chapman and South Bay treatment plants. The Carlsbad Municipal Water District produced 1,342 acre-feet of recycled water from the Gafner treatment plant operated by the Leucadia County Water District and the Meadowlark treatment plant operated by the Vallecitos Water District. The Ramona Municipal Water District produced 851 acre-feet of recycled water through its Santa Maria and San Vicente treatment plants.

In conjunction with preparation of its 2005 Urban Water Management Plan, the SDCWA obtained verifiable projections from cities and local water districts of the expected supply of recycled water for the San Diego region in five year increments from the year 2010 through the year 2030. The supply of recycled water in the San Diego region based upon verifiable projects is projected to grow from 11,479 acre-feet in 2005 to 33,660 acre-feet in the year 2010 and 40,662 acre-feet in the year 2015. By the year 2030, the supply of recycled water is projected to grow to 47,584 acre-feet per year. (Table 5-5 SDCWA Urban Water Management Plan, 2005).

These projected increases in recycled water are primarily from the expansion of existing recycled water facilities. The City of Carlsbad is constructing a new treatment and distribution system to deliver close to 3,000 acre-feet per year of recycled water. The Otay Water District is constructing a distribution system to deliver an estimated 5,000 acre-feet per year of recycled water by 2030 purchased from the City of San Diego's South Bay Water Recycling Plan. This data indicates that a substantial supply of recycled water remains available throughout the San Diego Region to serve a variety of projects.

4.15.3.8 Discussion of Usage and Permitting Requirements for Recycled Water and Percolating Groundwater

This section discusses the ability of the project to utilize recycled water and percolating groundwater as water sources for the project.

Due to a rapidly growing population and diminished water resources, the State Legislature began adopting legislation in 1969 encouraging the development and use of recycled water. In 1969 the Legislature enacted the Water Reclamation Law (Water Code §§13500 et seq.). In doing so, the Legislature declared that the people of this state have a primary interest in the development

of facilities to recycle water to supplement existing surface and underground water supplies and to assist in meeting the future water requirements of the state. (Water Code §13510). The Legislature also declared that the utilization of recycled water by local communities for domestic, agricultural, industrial, recreational, and fish and wildlife purposes would contribute to the peace, health, safety and welfare of the people of the state. (Water Code §13511). To further develop recycled water, the Legislature declared that the use of potable water for non-potable uses constitutes a waste and an unreasonable use of water thereby mandating use of recycled water for these uses. (Water Code §13550).

In 1991, the Legislature enacted the Water Recycling Act of 1991 (Water Code §§13575 et seq.). In adopting this act, the Legislature declared that development of traditional water resources in California had not kept pace with the state's population and that there was a need for a reliable source of water for uses not related to the supply of potable water to protect investments and agriculture, greenbelts, and recreation and to replenish groundwater basins. The Legislature also determined that the use of recycled water had proven to be safe from a public health standpoint and that the use of recycled water was a cost-effective reliable method of helping to meet California's water supply needs. (Water Code §13576). This Act encouraged retail water suppliers and recycled water producers and wholesalers to enter into contracts to serve recycled water to preserve California's diminishing water resources.

In direct response to this legislation, local water agencies and water districts have developed an extensive recycled water system serving San Diego County and the State of California. By 2004, the City of San Diego had developed reclamation facilities capable of producing approximately 30 million gallons per day of tertiary recycled water. The Padre Dam Municipal Water District used recycled water to create Santee Lakes as part of the Santee Lakes Regional Park. (Walker, Thirst for Independence, The San Diego Water Story, 2004 p. 108). Recycled water is presently used for landscape irrigation, filling lakes, ponds and ornamental fountains, watering campgrounds, freeway medians, community greenbelts, school athletic fields, nursery stock, and controlling dust at construction sites. Reclaimed water generated by the City of San Diego is sold to about 100 customers, including the Torrey Pines Golf Course, and General Atomics. (Id p. 8). The San Diego County Water Authority has determined that approximately 11,479 acre-feet of recycled water were supplied throughout San Diego County in 2005 for a variety of residential, school, agricultural, industrial, and commercial purposes.

The San Diego County Department of Environmental Health (DEH) and the Regional Water Quality Control Board (RWQCB) are the primary agencies responsible for regulating the treatment and use of recycled water on specific projects. The DEH provides plan check and inspection services and the RWQCB issues the waste discharge permits for the production and distribution of recycled water. Discussions with both of these agencies indicate that the proposed project application of recycled water is acceptable. A waiver must be issued by the RWQCB to the Olivenhain Municipal Water District for the application of this recycled water to the project area in the Pala Hydrologic Subarea, followed by a revision to Olivenhain's Master Reclamation Permit.

The right to use percolating groundwater is derived from ancient English law subsequently adopted in California. Rights in subsurface or percolating waters are overlying, appropriative, or

prescriptive. (*City of Pasadena v. City of Alhambra* (1949) 33 Cal.2d 908, 925). The project's use of percolating groundwater is strictly as an overlying owner. An overlying water right is analogous to the rights of a riparian owner in a stream. It is "the right of the owner of the land to take water from the ground underneath for use on his land within the basin or watershed; the right is based on ownership of the land and is appurtenant thereto." (*City of Pasadena v. City of Alhambra* (1949) 33 Cal.2d 908, 925; *City of Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224, 1240).

As between overlying owners, the rights, like those of riparians, are correlative, i.e., they are mutual and reciprocal. This means that each landowner has a common right to take all that he can beneficially use on his land if the quantity is sufficient; if the quantity is insufficient, each is limited to his proportion or fair share of the total amount available based upon his reasonable need. (*Tehachapi-Cummings County Water Dist. v. Armstrong* (1975) 49 Cal.App.3d 992, 1001). The proportionate share of each owner is predicated "not on his past use over a specified period of time, nor on the time he commenced pumping, but solely on his current reasonable and beneficial need for water." (*Id.* p. 1001). The interest of an overlying landowner in groundwater is not lost by nonuse. (*Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist.* (1935) 3 Cal.2d 489, 525; *Wright Goleta Water Dist.* (1985) 174 Cal.App.3d 74, 84).

Thus, landowners overlying a basin or watershed have a co-equal right to utilize this groundwater on their land within the basin or watershed. (Tarlock, Law of Water Rights and Resources (West, 2004) §4:14 p. 4-21).

Under California law, no permit is necessary to utilize overlying water rights within a groundwater basin or watershed. The SWRCB provides information pertaining to water rights in California. Information provided by the SWRCB indicates that no application to utilize underlying percolating groundwater is required. (SWRCB, 2000).

The landfill site includes a number of bedrock wells located outside the Pala Basin aquifer that generate groundwater from percolation. Accordingly, water derived from this percolating groundwater may be utilized anywhere on the landfill site without issuance of a permit.

Under a worst-case scenario, all of the project's water needs would be provided through recycled water purchased from Olivenhain. Under the signed contract, Olivenhain has agreed to provide up to 230 acre-feet per year of water for project construction and operations. This exceeds the maximum estimated water needs of the project by approximately 37 AFY. Olivenhain has agreed to provide this recycled water to the project for a term of 60 years. This coincides with the estimated period for operation and closure of the landfilling operations. Accordingly, there is adequate recycled water to serve the project for its entire time, even disregarding the use of percolating groundwater from existing bedrock wells on site. Discussions with the RWQCB indicate this recycled water can be used on the project site upon issuance of a waiver to Olivenhain permitting its use in the Pala Hydrologic Subarea, followed by a revision to Olivenhain's Master Reclamation Permit. Pump testing has indicated that this recycled water can be supplemented through use of percolating groundwater from existing bedrock wells on site and that these percolating bedrock wells have the ability to provide a safe yield of an additional 43.5 AFY for project construction or operation. The use of this percolating groundwater from

existing bedrock wells does not require a permit from the State Water Resources Control Board (SWRCB).

4.15.3.9 Impact Significance Criteria

In accordance with the CEQA Guidelines (Appendix G), the project's water use would create a significant impact if: (1) water uses for the project would violate any water quality standards; (2) water usage for the project would significantly impact the supply of recycled water or groundwater to other existing users in the area; or (3) result in significant impacts on the environment.

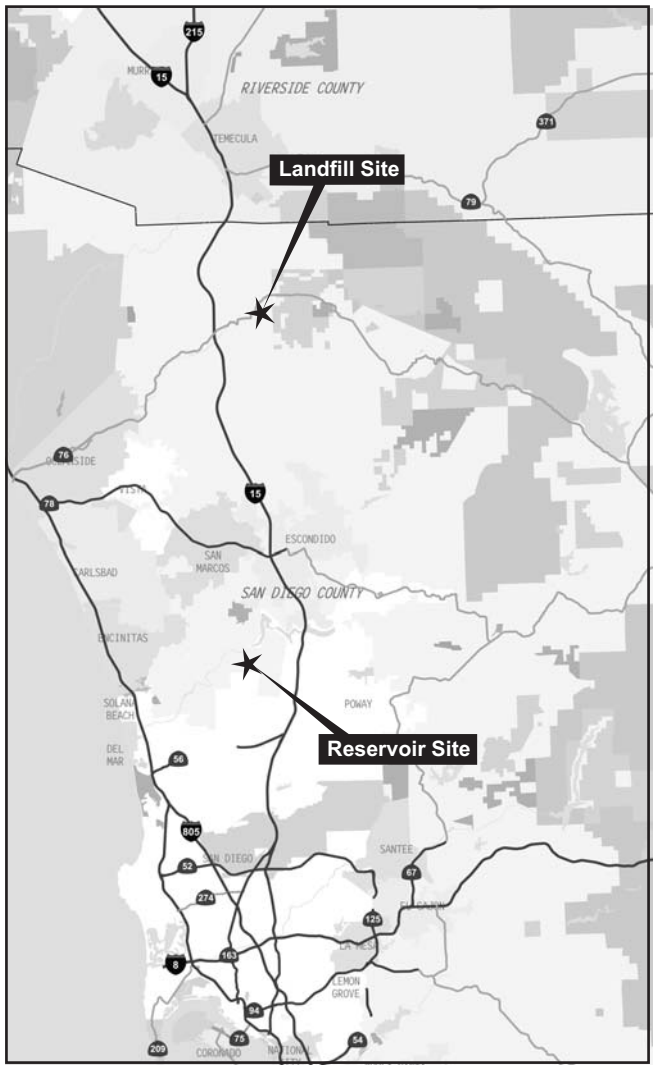
4.15.3.10 Potential Impacts

Description of Water Service and Improvements.

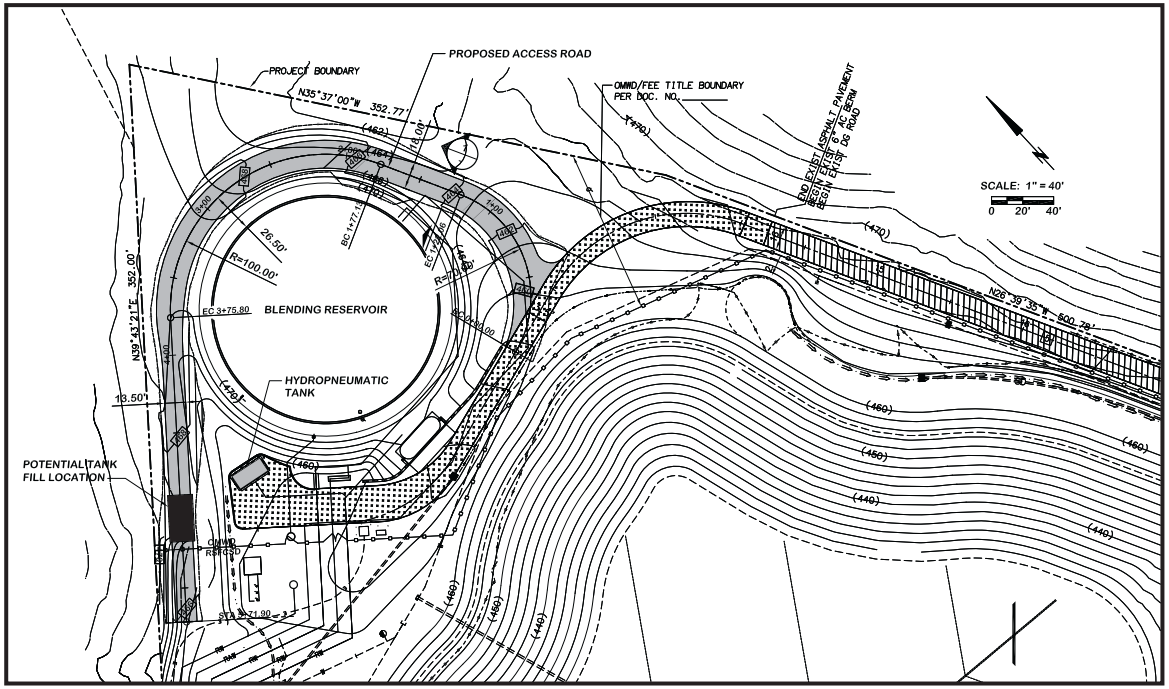
Recycled water service for the project would be delivered by Olivenhain to water trucks at Olivenhain's Santa Fe Valley Reservoir and Pump Station site (Reservoir Site) located near the intersection of Artesian Road and Maranatha Drive west of I-15. The location of the Reservoir Site is depicted on Exhibit 4.5-10. Water trucks will access this site from I-15 by traveling west on Camino del Norte/Camino del Sur (Artesian Road) to Maranatha Drive and then travel north along Maranatha Drive a short distance to the Reservoir Site located on the eastern side of Maranatha Drive. Maranatha Drive is presently being paved to a width of 40 feet within 60 feet of graded width to accommodate construction of the Maranatha School. In order to provide free flowing truck movements on the Reservoir Site, approximately 1000 feet of 24 foot wide asphalt roadway will be constructed around Olivenhain's blending reservoir at the Reservoir Site. A concrete pad will be installed on the site and water handling facilities including a 6 inch meter will be installed to fill the trucks. Project facilities at the Reservoir Site are shown on Exhibit 4.15-6. Water trucks will either be rented or purchased by the project to transport the recycled water from the Reservoir Site to the landfill site. Approximately four to five 2,300 gallon water trucks would be used for this purpose.

The recycled water facilities will be located in the ancillary facilities area on the landfill site as shown on Exhibit 4.15-7. Trucks delivering the recycled water to the landfill site will enter the facilities area. A fill pipe will be used to gravity-feed the recycled water from the trucks into a 20,000 gallon recycled water storage tank. The recycled water storage tank will include a secondary containment tank capable of holding the entire tank volume lined with an impervious material to prevent releases of recycled water from the tank. Trucks using the recycled water on site will drive through the ancillary facilities area to a spill containment area where they will receive the water from the storage tank by a distribution fill pipe. The recycled water facilities located on the landfill site are shown on Exhibit 4.15-8.

Water demand during operation will be highest when landfill operation occurs simultaneously with periodic construction to create new cells. During these periods, the estimated maximum water usage would be about 205,000 gpd. This translates into 89 one-way and 178 two-way truck trips to the site for recycled water during peak demand periods. Based upon a PCE conversion factor of 1.5, this results in approximately 267 daily trips to the landfill site for recycled water on peak demand days assuming all project water is trucked recycled water. This



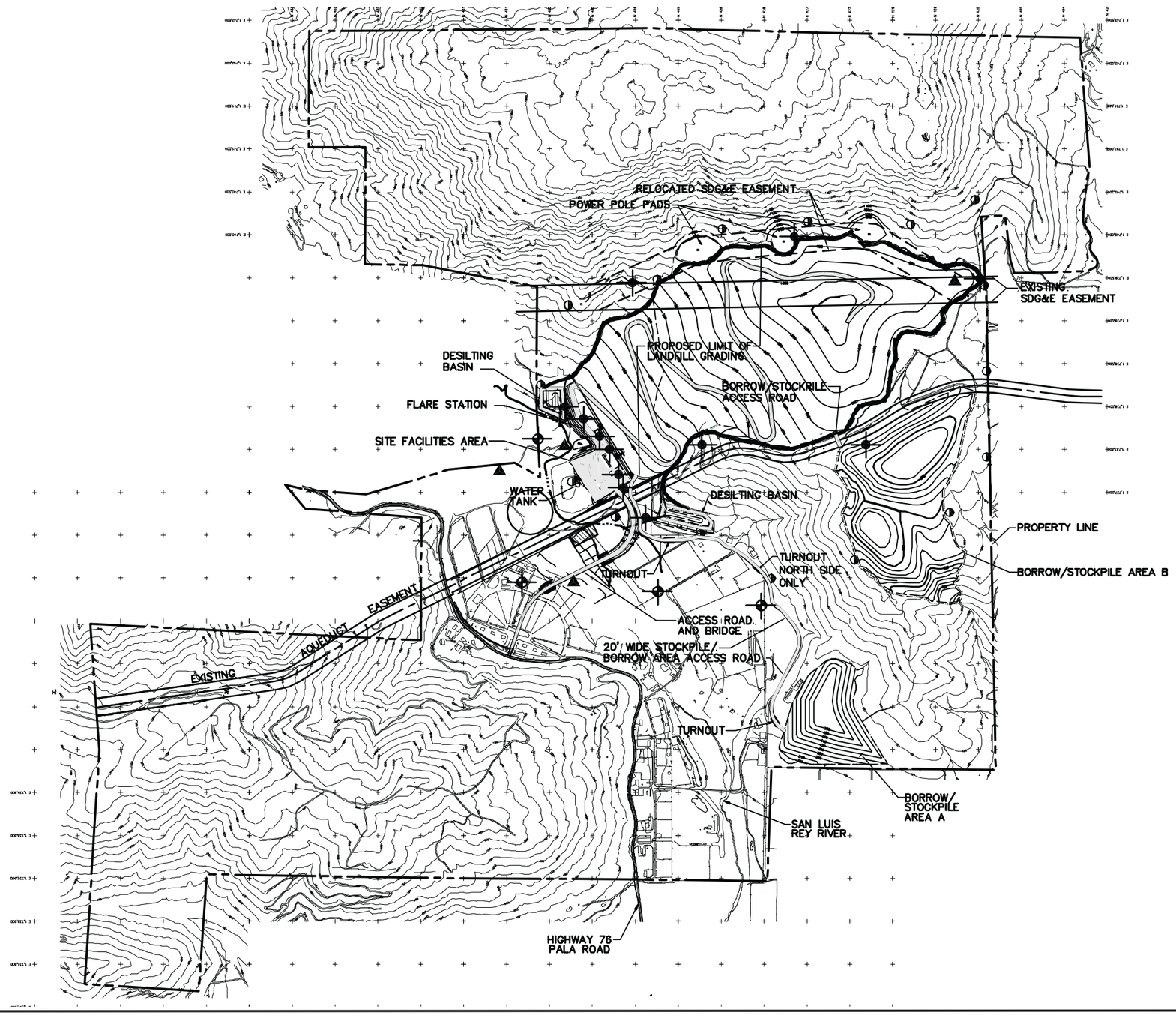
Regional Location Map



Proposed Improvements to Santa Fe Valley Reservoir and Pump Station

Exhibit 4.15-6
Proposed Improvements at Reservoir Site

Source: Infrastructure Engineering and Thomas Guide 2006



LEGEND

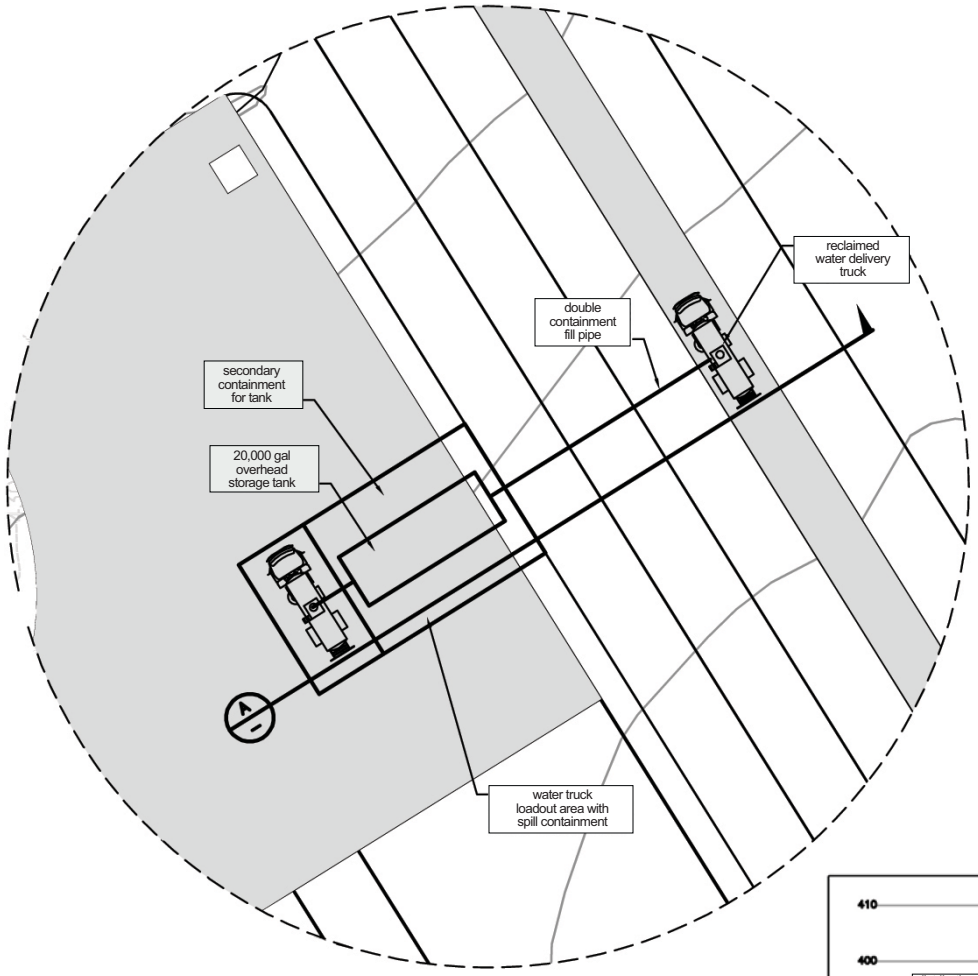
- PROPERTY LINE
- APPROXIMATE LIMIT OF LANDFILL GRADING
- BORROW/STOCKPILE AREA LIMITS
- FINAL CONTOUR
- EXISTING CONTOUR
- ACCESS/HAUL ROAD
- LANDFILL GAS MIGRATION MONITORING PROBE
- SURFACE WATER SAMPLING LOCATION
- BEDROCK AQUIFER MONITORING WELL
- ALLUVIAL AQUIFER MONITORING WELL

N

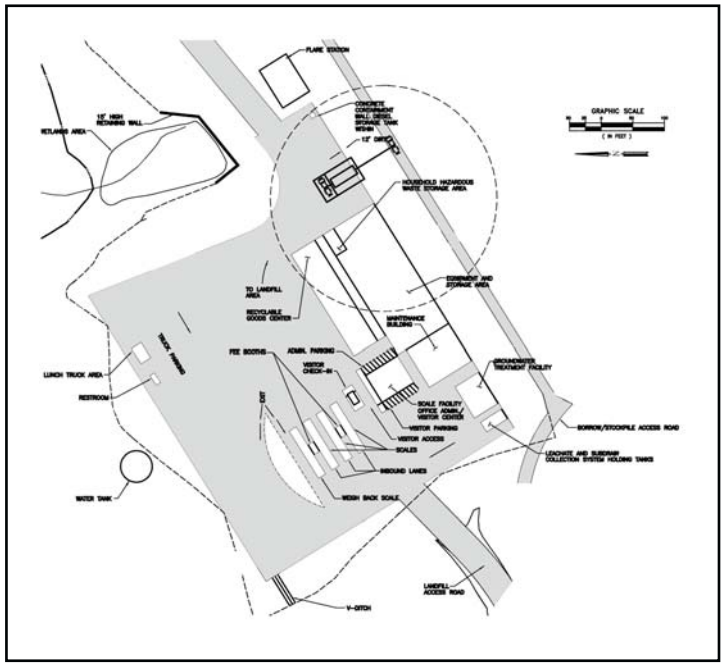
0 1200 Feet

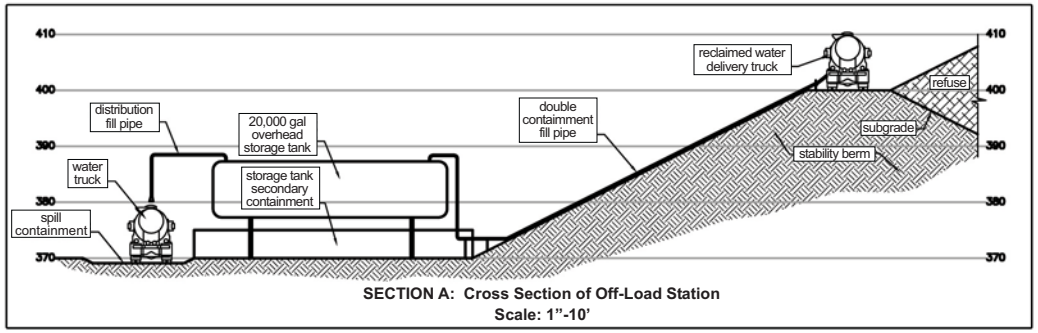
Source: Bryan A. Stirrat & Associates, 2002

Exhibit 4.15-7
Site Plan with Ancillary Facilities



PLAN
SCALE: 1"=20'





SECTION A: Cross Section of Off-Load Station
Scale: 1"-10'

Exhibit 4.15-8
Reclaimed Water Off-Load Station within Ancillary Facilities Area

Sources: Bryan A. Stirrat & Associates, 2006

analysis evaluates traffic associated with recycled water based on a worst-case scenario. Bedrock wells located on the landfill site have the ability to provide a safe yield volume of approximately 38,880 gallons per day of water for project construction and operation. This reduces the needed supply of recycled water during peak operations to about 166,120 gallons per day. This equates to 144 two-way daily truck trips for recycled water and 217 daily trips using the PCE conversion factor of 1.5. Peak recycled water use will occur only intermittently when new cells are being created in combination with ongoing project operations. During normal project operations, very little if any recycled water will be needed to serve the project since bedrock wells on site are capable of accommodating the 30,000 to 40,000 gallons per day expected during project operations.

It is important to note that total project trips from all sources including recycled water will be limited to a total of 2,085 PCE trips per day. The solid waste permit issued for the project will limit the project to a total of 2,085 PCE trips per day from all sources. When the project reaches a total of 2,085 PCE trips in any day or 675 trucks from all sources, project facilities will be shut down. In addition, certain peak hour truck trip restrictions are now being proposed (see Section 4.5). Accordingly, on days when more trips are used to truck recycled water to the landfill site, less trips will be available for other types of vehicles including waste collection trucks. The impacts from project traffic were analyzed in detail in the 2003 Draft EIR and in the 2006 traffic study completed by Darnell & Associates.

During peak operating periods when construction activities are occurring for the project in combination with project operation, a maximum of 205,000 gallons of water per day or 193 AFY will be needed for combined construction and operation. Pursuant to the executed contract, Olivenhain has agreed to provide the project with up to 244,000 gallons per day or 230 AFY of recycled water per year for a term of 60 years. This is concomitant with the 30 year operational period of the project and the 30 years of post-closure obligations. However, during post-closure obligations, water needs of the project will be minimal. Since the facilities will be closed at that time and the landfill will not be operational, water needs would be limited to minor amounts of water needed intermittently for rehabilitation of slopes. Water needs during the post-closure period will be substantially less than the available supply through bedrock wells on site.

The secondary source of water for the project is percolating groundwater from bedrock wells located north of the landfill footprint designated as wells GLA-3, GLA-12, GLA-13, GLA-B, GLA-C, GLA-G and GMW-1 on Exhibit 4.15-5. Pump testing indicates that these wells have the capacity to produce a sustained yield of approximately 43,200 gallons of water per day over the life of the project. However, the safe yield analysis completed by GLA would limit this to 27 gpm or 38,880 gallons per day. Thus, these bedrock wells are capable of providing most, if not all, of the operational water needs of the project. Since all of these bedrock wells are currently operational, no additional improvements are required to utilize the water from these bedrock wells. However, these wells will be equipped with dedicated pumping systems and plumbed to convey groundwater to a tank for on-site use. Continuous pumping from these wells will capture the groundwater as it flows to these wells along the point of compliance.

Short-Term (Construction) Impacts

Based upon changes in the project description, on-site construction activities would now include the construction of the on-site recycled water facilities shown on Exhibit 4.15-8. These on-site recycled water facilities include the double containment fill pipe, 20,000 gallon recycled water storage tank and distribution fill pipe to be included in the ancillary facilities area of the landfill site. Off-site construction activities will include the 1000 feet of 24-foot wide asphalt roadway around the perimeter of Olivenhain's blending reservoir and construction of the concrete pad and connection to the pump station at the Reservoir Site. It is estimated that construction activities at the Reservoir Site will result in approximately 8 to 10 round trip trucks or vehicles per day for a period of approximately 3 weeks.

Because of the nature of the project, construction would be ongoing throughout the life of the landfill. Therefore, construction trips are added to the long-term operational impacts (discussed below). Once the landfill is operational, traffic impacts would be substantially greater than during the initial construction period. For this reason, the traffic analysis focuses on the greater impacts of the long-term (operational) impacts. PCR has evaluated air quality and noise impacts associated with the additional construction activities at the landfill site to accommodate the recycled water facilities and has concluded these additional construction activities will not result in any new air quality or noise impacts.

Construction activities at Olivenhain's Reservoir Site are expected to result in approximately 8 to 10 trucks or vehicles per day for a period of approximately 3 weeks. Regional emissions during construction were forecasted by assuming a conservative estimate of construction and applying the mobile-source and fugitive dust emission factors derived from URBEMIS 2002 which is an emissions evaluation model developed by the California Air Resources Board. The San Diego Air Pollution Control District (SDAPCD) regional air pollutant emissions significance thresholds are presented in Table 4.15-1 and the estimate of potential daily emissions during construction activities is presented in Table 4.15-2. As presented in Table 4.15-2, construction-related emissions of volatile organic compounds (VOC), carbon monoxide (CO), particulate matter (PM_{10}), oxides of nitrogen (NO_X) and oxides of sulfur (SO_X) would be well below their respective SDAPCD significance thresholds. No significant air quality emissions would result from construction activities at Olivenhain's Reservoir Site.

However, as noted in the 2006 PCR (revised 2007) report, these emissions would contribute to regional emissions assuming the timing of the activities at the Reservoir Site and the landfill site are concurrent, and would therefore contribute to and increase the significant and unavoidable PM_{10} and NO_x impact previously described in the 2003 Draft EIR.

Short-term noise impacts associated with construction activities at Olivenhain's Reservoir Site were also evaluated by PCR. Construction of the paved area around Olivenhain's blending reservoir will result in noise levels of approximately 61 dBA at the nearest residence and approximately 66 dBA at the Maranatha School. Recycled water facility improvements at Olivenhain's blending reservoir will result in noise levels of approximately 58 dBA at the nearest residence and approximately 52 dBA at the Maranatha School. These noise levels fall below the

TABLE 4.15-1
SIGNIFICANCE THRESHOLDS

AIR CONTAMINANT	AQIA TRIGGERS			OFFSET TRIGGER
	(lb/hour)	(lb/day)	(tons/yr)	(tons/yr)
Particulate Matter (PM_{10}) [a]		100	15	
Oxides of Nitrogen (NO_X)	25	250	40	50
Volatile Organic Compounds (VOC)				50
Oxides of Sulfur (SO_X)	25	250	40	
Carbon Monoxide (CO)	100	550	100	
Lead (Pb)		3.2	0.6	

[a] *Process emissions only, excludes area fugitive emissions*

Source: SDAPCD Rules 20.1, 20.2, and 20.3

TABLE 4.15-2
CONSTRUCTION REGIONAL EMISSIONS

AIR CONTAMINANT	RESERVOIR SITE			SIGNIFICANT
	(LB/HOUR)	(LB/DAY)	(TONS/YR)	
Particulate Matter (PM_{10})	1	5	0.02	No
Oxides of Nitrogen (NO_x)	7	56	0.35	No
Volatile Organic Compounds (VOC)	<1	7	0.04	No
Oxides of Sulfur (SO_x)	<1	<1	<0.01	No
Carbon Monoxide (CO)	7	51	0.35	No
Lead (Pb)	<1	<1	<0.01	No

Source: PCR Services Corporation, 2006

75 dBA average noise level at or beyond the property line of any property upon which as legal dwelling unit is located between 7:00 A.M and 7:00 P.M., as prescribed by County Code Section 36.410. These noise levels and their limited duration (approximately 3 weeks), would not result in any significant noise impacts during construction of the recycled water facilities at the Reservoir Site. Construction activities at the Reservoir Site are within existing disturbed areas. However, biological impacts could result if construction occurs during the coastal California gnatcatcher breeding season (February 15 through August 31). Accordingly, construction activities at the Reservoir Site would not result in any significant traffic, noise, or air quality impacts, and biology impacts can be reduced to a level of less than significant (see MM 4.9-20). The limited nature of these construction activities and their short duration (3 weeks) does not result in any significant impacts. Because these impacts are insignificant, no mitigation is required.

During initial and periodic construction activities, the project will use between 150,000 to 175,000 gallons per day (gpd) or a maximum of approximately 165 acre-feet per year of water. The bedrock wells on site have the capacity to supply approximately 43.55 acre-feet of this

demand based upon the safe yield analysis discussed below. In the event water from the bedrock wells becomes unavailable for any reason during construction activities, all water provided to the project during construction would be recycled water.

Olivenhain has entered into a written contract with the project agreeing to supply up to 244,000 gpd of water daily and up to 230 acre-feet of water per year. Olivenhain has determined that it has adequate recycled water available to serve these volumes of water to the project without adversely affecting recycled water supplied to its other customers. The amount of recycled water committed to the project, 244,000 gpd, is substantially less than the 2,000,000 gpd output from its wastewater treatment plant. Accordingly, the use of recycled water for project construction activities will not result in any impacts to the available supply of recycled water within Olivenhain.

GeoLogic Associates (GLA) performed a safe yield calculation to determine a reasonable level of pumping on the project site that did not exceed the amount of groundwater flowing in, or surface water infiltration into the bedrock on the project site. The GLA report is included as Appendix C to this Revised Final EIR.

Climate data available from the San Diego County Water Authority (www.SDCWA.org) was evaluated to develop an estimate of the "safe yield" in the Gregory Canyon area. Pumping that exceeds the amount of groundwater flowing in, or surface water infiltrating into, the fractured bedrock will exceed the safe yield. The base and area surrounding Gregory Canyon is approximately 415 acres. Assuming that infiltration and recharge are approximately 5% of the approximately 25 inches of rain that fall on average each year at the site, the safe yield from the project site is calculated to be about 14.1 million gallons per year or about 27 gallons per minute.[21] This equates to 43.55 acre-feet per year. Use of the recharge rate of 5% is common for hydrologic analysis in Southern California (Woolfenden and Koczot, 2001). The analysis completed by GeoLogic Associates indicates that the use of 43.55 acre-feet per year of water derived from bedrock wells on site does not exceed the safe yield for the site. Accordingly, the use of up to 43.55 acre-feet per year of groundwater from bedrock wells on site will not result in any impacts to the safe yield for this area or result in any impacts to other well users in the area. Impacts to the groundwater basin from the use of recycled water during both construction and operation of the project is discussed later in this section.

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[21] *The assumed rainfall of 25 inches was derived based on rainfall data from the Lake Henshaw dam gauging station. Although a number of gauging stations could have been utilized for purposes of the safe yield analysis, Lake Henshaw dam was chosen because the station records are readily available and rainfall amounts are well documented over the last 42 years. This data set was most appropriate for the safe yield calculation, as its purpose is to evaluate the availability of groundwater in the fractured bedrock formation for use by the project over a period of many years.*

URS also used rainfall data for purposes of hydrological studies submitted to the U.S. Army Corps of Engineers. The purpose of the hydrological studies was to predict flows in the Gregory Canyon drainage under various rainfall conditions. Data from gauging stations was used primarily to obtain rainfall patterns, as opposed to actual amounts of rainfall. URS determined that the Fallbrook gauging station provided the most appropriate data set for this purpose. The actual analysis of flows in the Gregory Canyon drainage using the HEC-1 model was not based on data from any gauging station, but rather County-generated rainfall isopluvial maps.

Long-Term (Operational) Impacts

Water demand during operation would be highest when landfill operation occurs simultaneously with periodic construction. Water during landfill operation and periodic construction would be required for dust control, landscape irrigation, ancillary area usage, liner construction and fire protection (if needed). The estimated maximum water use would be about 205,000 gpd or approximately 193 acre-feet of water per year when construction activities are occurring in combination with project operations. However, similar to the initial construction phase, water use will vary depending on weather and time of construction.

The bedrock wells on site have the capacity to supply approximately 43.55 acre-feet of this demand. The remaining 149 acre-feet needed during combined project construction and operation would be provided through recycled water. In the event water from the bedrock wells becomes unavailable for any reason during these operational activities, all water provided to the project would be recycled water.

Olivenhain has entered into a written contract with the project agreeing to provide the project with up to 244,000 gpd and 230 acre-feet of recycled water. Olivenhain has determined that it has adequate recycled water available to serve the project without impacting the recycled water supply available to its other customers. The amount of recycled water committed to the project, 244,000 gpd, is substantially less than the 2,000,000 gpd output from its wastewater treatment plant. Accordingly, the use of recycled water for combined interim construction and project operations will not result in any impacts to the available supply of recycled water within Olivenhain.

As noted previously, GLA has completed an analysis evaluating the safe yield of the Gregory Canyon area to evaluate the ability of the project to utilize 27 gallons per minute or 43.55 acre-feet per year of groundwater from bedrock wells located on the landfill site. This analysis indicates that the use of 43.55 acre-feet per year of water derived from bedrock wells on site does not exceed the safe yield for the site. Accordingly, the use of up to 43.55 acre-feet per year of groundwater from bedrock wells on site will not result in any impacts to the safe yield of groundwater for this area or result in any impacts to other well users in the area. Impacts to the groundwater basin from the use of recycled water during interim construction and operation of the project is discussed later in this Section.

Since the project would be limited to a total of 2085 PCE trips per day which was previously analyzed in the 2003 Draft EIR, no additional regional air quality impacts from project recycled water operations would occur (PCR, 2006). However, additional air quality analysis was conducted to evaluate whether this would cause any additional localized air quality impacts. These localized impacts were evaluated based on the 2006 traffic study for the project.

Local CO Hotspot Analysis

Similar to the analysis provided in the 2003 Draft EIR, an analysis of carbon monoxide concentrations at three locations in the project vicinity was conducted. The County of San Diego recommends that assessment methodologies for microscale CO impacts from project-related traffic should follow the current guidance from Transportation Project-Level Carbon Monoxide

Protocol (Institute of Transportation Studies, 1997).[22] Consistent with the Protocol, intersections with LOS of E or F are generally the most appropriate candidates for detailed analysis. Simulations were performed for both the near term cumulative and near term cumulative with project scenarios in order to evaluate the incremental effect of project emissions as accurately as possible. The near term cumulative scenarios took into account cumulative traffic volumes to assess the impact of project traffic in conjunction with traffic generated by nearby planned projects. The specific locations evaluated were the intersection of the SR 76 and the I-15 northbound and southbound ramps and the intersection of SR 76 and proposed project access road.

The CALINE4 model simulations for the two scenarios used A.M. and P.M. peak-hour traffic volumes at the critical intersections as determined by Darnell & Associates (2006). The background CO level was obtained from the Escondido monitoring station using the highest one-hour measurement over the last 3 years of available data (11 ppm for the one-hour CO level, and 3.9 ppm for the eight-hour CO level).

The results of the CALINE4 CO modeling are summarized in Table 4.15-3 for the near term cumulative one-hour and eight-hour CO concentration levels.

TABLE 4.15-3
WORST-CASE PROJECTIONS OF PEAK-HOUR CARBON MONOXIDE CONCENTRATIONS

		ESTIMATED CO CONCENTRATIONS [A]			
RECEPTOR		NEAR TIME CUMULATIVE (NO PROJECT)		NEAR TIME CUMULATIVE (WITH PROJECT)	
LOCATION NO.	LINK	1 HOUR (PPM)	8 HOUR (PPM)	1 HOUR (PPM)	8 HOUR (PPM)
1	SR 76/I-15 northbound ramp	14.3	5.4	145	5.5
2	SR 76/access road	13.9	5.1	14.1	5.3
3	SR 76/I-15 southbound ramp	14.1	5.3	14.1	5.4
	Federal standard	35	9	35	9
	State Standard	20	9.0	20	9.0
	Exceedances	None	None	None	None

[a] CO concentrations shown above include maximum background CO levels of 11 ppm for the one-hour level, and 3.9 ppm for the eight-hour level.

Source: PCR Services Corporation, 2007

The future one-hour and eight-hour CO levels for both scenarios comply with the one-hour and eight-hour CO California and federal standards at all three locations. Therefore, similar to the

[22] *County of San Diego, Draft Air Quality Report Guidelines, August 18, 2000.*

previous findings in the 2003 Draft EIR, the proposed project would not create any significant localized air quality impact as a result of project -generated traffic.

Diesel Particulate Health Risk Assessment

Since the Maranatha School and existing residential uses are in close proximity to the Reservoir Site, an analysis was conducted to determine if diesel particulate (DPM) exhaust from the recycled water trucks would result in potential health risk impacts. This analysis was based on the maximum water demand, landfill operation occurring simultaneously with periodic construction to create new cells. During these periods, the estimated maximum water usage would be about 205,000 gpd. This translates into 89 one-way and 178 two-way truck trips to the site for recycled water during peak demand periods assuming all project water is trucked recycled water. Although construction is only anticipated to occur periodically during the life of the landfill, for purposes of this analysis and consistent with SDAPCD guidelines, the maximum number of trucks was conservatively assumed to occur at a constant rate for period of 70 years.

Cancer risk is often expressed as the maximum number of new cases of cancer projected to occur in a population of one million people due to exposure to a specific cancer-causing substance after a 24-hour a day, 365 days a year exposure outdoors at the same concentration over a lifetime of 70 years. This probability is usually expressed in terms of the number of people who will develop cancer per one million people who are also exposed. It is important to understand that this cancer risk represents a probability that person develops some form of cancer. The estimated risk does not represent mortality rates. It is also important to understand that the risk described in these calculations reflects the level of exposure that would be virtually impossible to experience, and that for most individuals, exposure to a particular contaminant, such as DPM, would be considerably less due to shorter duration of students and residents in the area, amount of time spent at the school/residence daily and throughout the year, and the split between time spent indoors and outdoors.

The cancer risk from vehicular exhaust (DPM) occurs exclusively through inhalation and for this project was calculated using the U.S. Environmental Protection Agency (USEPA) recommended Industrial Source Complex-Short Term (ISCST3) dispersion model. The cancer risk was then calculated based on those estimated DPM concentrations using the risk methodology derived from the California Office of Environmental Health Hazard Assessment (OEHHA).

The maximum cancer risk would occur east of Maranatha Drive, and the maximum exposed residential use would be approximately 4.2 x 10^{-6} (four in one million). Using extremely conservative estimates, the cancer risk from water haul truck activity would be well below the significance threshold of 10 in one million.[23] Therefore, vehicular exhaust from recycled water trips will not result in any significant health risk impacts.

[23] *The State of California has established a threshold of ten in a million as a level posing no significant risk for exposures to carcinogens regulated under the Safe Drinking Water and Toxic Enforcement Act (Proposition 65) and was therefore used in this HRA.*

Traffic and Noise Impacts to Maranatha School

During intermittent periods when project operations are occurring simultaneously with the creation of new cells, approximately 89 recycled water trucks will utilize Maranatha Drive over the 11 hours of daily project operations. Utilizing the PCE factor of 1.5 and two-way trips results in approximately 267 daily trips utilizing Maranatha Drive for the delivery of recycled water assuming that all water provided to the project is recycled water. To avoid any potential safety impacts to student, parents, or teachers at the Maranatha School, recycled water trips using Maranatha Drive will be prohibited during the period when school opens from 6:45 A.M. to 8:15 A.M. and at the end of the school day from 2:30 P.M. to 4:15 P.M. on days when the school is in session. During the remaining nine hours of project operations, hourly truck traffic would be approximately 12 trucks per hour. With two way trips and a PCE conversion factor of 1.5, this equates to approximately 36 PCE trips per hour. These trips will be occurring during periods when little traffic will be expected from the Maranatha School.

These traffic impacts on the Maranatha School and the use of Maranatha Drive were evaluated by Darnell & Associates in conjunction with its 2006 traffic study. The Maranatha School is located on approximately 25 acres of land that includes a self-contained large parking and drop-off area on site. A field review indicates that the Maranatha School accommodates all student related traffic on-site including student drop-off/pick-up and bus loading without requiring students to use Maranatha Drive. As such, student pedestrian traffic is removed from Maranatha Drive providing more safety than other school facilities which require students to walk across roadway facilities. Based on the location of the Maranatha School and the absence of the need for students, parent, or teachers to cross Maranatha Drive, the project's recycled water trips are not expected to result in any significant vehicular or safety impacts on Maranatha Drive or to the Maranatha School. However, to enhance student safety in the area, the project will provide non-regulatory signage on Maranatha Drive to caution drivers about the presence the school and children, and recycled water trips will be prohibited from 6:45 A.M. to 8:15 A.M. and from 2:30 P.M. to 4:15 P.M. on days when the school is in session.

A detailed analysis of traffic impacts from recycled water trips is discussed in Section 4.5.3.7 of the Revised Final EIR. The analysis concluded that recycled truck trips on Maranatha Drive, Camino del Norte, Camino del Sur or I-15 would not result in any significant traffic impacts.

Roadway noise impacts along Maranatha Drive were evaluated based on the Federal Highway Administration (FHWA) roadway traffic noise prediction model (RD-77-108). Based upon peak daily traffic expected on Maranatha Drive, morning and afternoon school peak hour traffic noise along Maranatha Drive would be approximately 59.4 dBA L_{eq} and 57.3 dBA L_{eq}. Traffic noise on Maranatha Drive during the school non-peak hours which will include recycled water trips would be approximately 58.0 dBA L_{eq} (PCR, 2007).

The County of San Diego has established noise standards for new residential developments impacted by transportation noise sources like roadways. The noise standards are 60 CNEL for private outdoor living areas (e.g., rear yards) and 45 CNEL for indoor noise sensitive areas. The Noise Element of the San Diego County General Plan provides an acceptable interior noise level for school classrooms as a one-hour average sound level of 50 dBA. Considering a 20 dB

reduction in interior noise levels from exterior sources for typical building construction with windows closed,[24] the average interior residential and classroom noise level would be approximately 39.4 dBA L_{eq} during the school A.M. peak hour and 38.0 dBA L_{eq} during a non-peak hour. Outdoor noise levels would be below 60 dBA L_{eq} at all times. Since the hourly L_{eq} values are less than the applicable standards, CNEL noise levels would also be well below those standards. In comparison to the County's standards, no significant traffic noise impacts would occur to the school or nearby residential uses and no mitigation measures for operational noise would be required along Maranatha Drive.

The noise, air quality, and health risk assessment completed by PCR in 2006 (revised 2007) indicates peak recycled water trips during project operations would not result in any significant air quality, health risks, or noise impacts to the Maranatha School. Therefore, project operational impacts on the Maranatha School are insignificant with the design features that have been adopted and no mitigation is required.

Traffic and Noise Impacts Along Haul Route

Traffic impacts arising from recycled water truck deliveries are discussed in Section 4.5.3.7. These trips do not result in any project-related significant impacts. However, they do contribute to existing unacceptable LOS F(0) and F(1) conditions on I-15 between Pomerado Road and Carmel Mountain Road, and for that reason are considered a significant and unavoidable impact for purposes of the Revised Final EIR. These trips also contribute to significant and unavoidable cumulative traffic impacts, as discussed in Section 4.5.3.3., although they would not add to the overall trips generated from the project.

As noted in the 2006 PCR study, based on estimated noise levels from existing traffic volumes, homes in close proximity to Camino del Norte and Camino del Sur are currently exposed to noise levels that exceed the County's Noise Element limit. The incremental increase on Camino del Sur and Camino del Norte would be a maximum of 0.1 dBA from project-generated trips. Project-generated traffic would extend the existing 60 CNEL contour outward from four to six feet along the recycled water haul route. Future near-term cumulative traffic would extend the existing 60 CNEL outward a maximum of 61 feet along the haul route. Because community noise environments are not immediate comparisons of noise levels, oftentimes a 3 dBA noise increase is considered as a significance threshold for human perception of noise increase. The incremental noise increase from recycled water trips falls well below that significance threshold. However, since CNEL noise levels along Camino del Sur, Camino del Norte, and I-15 exceed 60 CNEL at existing residences and the project would increase the noise level, the project would have both project-related and cumulative significant and unavoidable impacts to residents along these roadway segments.

Impacts of Recycled Water On Pala Basin Groundwater

The introduction of the tertiary recycled water being provided to the project by Olivenhain could potentially impact the existing water quality conditions at the project site. Currently the San Diego Basin Plan (1995) has established municipal and domestic supply, agricultural supply and

[24] *California Department of Transportation, Technical Supplement to the Traffic Noise Analysis Protocol, 1998.*

industrial process supply as existing beneficial uses of groundwater in the Pala Hydrologic Subarea. Water that is designated for use as domestic or municipal supply may not exceed the maximum contaminant levels (MCLs) as specified by both state and federal regulations.

The primary standards are threshold concentrations for specific minerals and chemicals to protect human health. The state has also developed secondary standards for constituents that may adversely affect the taste, odor or appearance of the water. The Basin Plan adopted for the Pala Hydrologic Subarea further states that for recycled water that is discharged, it should not exceed the basin plan's water quality objectives (WQO).

Olivenhain is required to conduct continuous quarterly and annual monitoring of its effluent to ensure proper treatment is being conducted from its treatment plant. A comparison of the Basin Plan groundwater quality objectives for the Pala Hydrologic Subarea (RWQCB, 1995) and twelve-month (2005) average recycled water quality data from the Olivenhain treatment plant calculated from the fourth quarter 2005 monitoring period are provided in Table 4.15-4 below.

TABLE 4.15-4
COMPARISON OF PALA BASIN AND OLIVENHAIN TREATMENT WATER QUALITY DATA

Analyte	Pala Basin WQOs (RWQCB, 1995)	OMWD Water Quality Data (12-month average from 4th quarter 2005)
TDS	900 mg/L	917 mg/L
Sulfate	500 mg/L	214.75 mg/L
% Sodium	60%	63.42%*
Manganese	0.05 mg/L	0.01 mg/L
Boron	0.75 mg/L	0.10 mg/L
Turbidity	5 NTU	<2 NTU
Fluoride	1.0 mg/L	0.3 mg/L
Chloride	300 mg/L	259 mg/L
Nitrate - N	15 mg/L	NA
Iron	0.3 mg/L	Non-Detect last 8 quarters
MBAS	0.5 mg/L	Non-Detect last 8 quarters
Odor	None	NA (None)
Color	15 units	9.6

Notes: MBAS - Methyl Blue-Activated Substances (tests the presence of detergent in the water
NTU - Nephelometric Turbidity Unit.
NA - Not Analyzed; Nitrate is not a required effluent monitoring parameter.
* The yearly, rolling average % Sodium was exceeded during this quarter.
Source: GeoLogic Associates, 2006

In addition to the above constituents, the recycled water effluent metals monitoring results indicated no measurable concentrations of aluminum, chromium, copper, manganese, nickel, lead, zinc, cadmium, silver, arsenic, mercury or selenium in Olivenhain's recycled water. Of the

metals monitored in the effluent, only a concentration of 0.04 mg/L of Barium was measured, well below the state MCL of 1.0 mg/L. Olivenhain has indicated that analyses were performed for a broader suite of analytes over the last year, although monitoring for these constituents is not presently required. The results of these tests indicated that most of these analytes were not detected in the effluent samples. No pharmaceutical manufacturing operations exist within Olivenhain's service territory.

Review of this recycled water quality data indicates that with the exception of the slightly elevated values for percent sodium and TDS measured during the past year, the recycled water quality is compatible with the water quality objectives adopted for the Pala Basin. Although the Pala Basin standard prescribes 900 mg/L for TDS, testing of bedrock wells on the landfill site during the last year have indicated levels of TDS that are greater than the 900 mg/L standard.[25]

For all planned uses on the landfill site, the amounts of recycled water that will actually reach the underlying groundwater are expected to be very small. Dust controlled water will be applied on the landfill site to dampen the surface without creating significant ponding. The applied water is surficial and very likely will evaporate rather than percolate down into the groundwater. Water migrating downward from areas within the landfill footprint that received recycled water will be captured by the leachate collection and removal system (LCRS), secondary leak detection/collection layer, or the subdrain for collection at the base of the landfill. Most of the recycled water utilized would be placed within the landfill footprint and would be subject to capture by the LCRS, secondary leak detection/collection layer, or subdrain.

Recycled water applied for landscape irrigation purposes will either be taken up by the plant or evaporate. Very little of this water would be expected to migrate downward to the underlying groundwater flow system. Best management practices will be employed during the recycled water application to plants to limit runoff outside of the area to be irrigated.

Water use during construction will include dust control (described above) and processing water for the low-permeability soil (clay) liner and protective covered soil. Prior to placement of the low-permeability soil layer or the uppermost protective cover soil, a 12-inch thick subdrain gravel layer with a series of drainage pipes connected to a downgradient tank will already have been constructed. A 12-ounce geotextile layer will be placed over the gravel subdrain layer and the 24-inch thick low-permeability soil layer will be constructed on top of the geotextile layer. Once the 24-inch thick low-permeability soil layer is constructed, based on the performance characteristics of the soil product required for liner construction, the water will bind within its matrix. It is anticipated that only a very low volume of construction water will be released from the clay following its construction. Any released recycled water would be captured by the subdrain. Similarly, recycled water used during placement of the protective cover soil above the LCRS would flow downward to the LCRS for collection and conveyance to the LCRS tanks. Therefore, with the use of best management practices of avoiding ponding and runoff during the

[25] *Appendix C includes an analysis of anticipated water quality standards that might be imposed by RWQCB in the revised Olivenhain Master Reclamation Permit. That analysis also concludes that the project would be capable of meeting those standards through blending with recycled water treated at the RO treatment plant located on the landfill site.*

material processing of placement construction operations, impacts to groundwater are not expected to occur from the application of recycled water.

Under worse case conditions, a maximum of 193 acre-feet of recycled water would be used for all project construction and operations during peak recycled use. Statistical data maintained by the County of San Diego indicates that approximately 45 inches of surficial water evaporates in San Diego County. This evaporation data indicates that a minimum of 30% of the 193 acre-feet of recycled water used during peak project construction and operation or approximately 58 AFY would evaporate on the surface. During normal years, 865 acre-feet of rainwater is expected to fall on the approximately 415-acre catch basin area on the landfill site. The portion of the recycled water used on the landfill site that might reach the Pala Basin is negligible and would not impact groundwater quality within the Pala Basin.

Potential Health Impacts of Recycled Water Use

The recycled water facilities located within the ancillary facilities area are not accessible to the public at large. As a result, exposures to the recycled water from the water truck delivery and distribution programs will be limited to areas outside of public access. Therefore, the risk to the public from use of recycled water on site is negligible.

The use of recycled water for project construction and operation has the potential to adversely impact personnel health as a result of direct contact with the water and inadvertent ingestion and inhalation of the over spray. While studies have indicated that the inadvertent inhalation of tertiary treated recycled water does not harm human health, the potential health risks associated with personnel contact with recycled water can best be avoided through the appointment of a recycled water site supervisor who is responsible for the on-site recycled water system and for supervising personnel utilizing recycled water on site. To ensure proper training, this supervisor should have attended a state or County DEH approved training class on the use of recycled water. This recycled water supervisor will be responsible for proper installation, operation and maintenance of the on-site recycled water tanks and water trucks and appurtenances including flushing and disinfecting of water trucks and tanks prior to reuse. The supervisor would also be responsible for providing continuous and regular training to on-site personnel on the presence and proper use of recycled water, including protocols such as washing of hands that come in contact with recycled water and avoiding over-spray from the water trucks to protect personnel health and safety. This supervisor will also ensure the proper posting of recycled water tanks and trucks with "RECYCLED WATER – DO NOT DRINK" in large readable English and Spanish print, and distribution piping colored purple or wrapped in purple tape. With a well informed recycled water site supervisor and site personnel, the health and safety risks associated with the use of recycled water for the project are expected to be low and will not result in any significant health impacts to site personnel.

Site Closure Impacts

No significant impacts to water services are expected to result with landfill closure. Following closure, the landfill will not be operating and water use would be limited to small amounts of

water needed periodically for the planting of slopes. Water needs during this period will be far less than the 43.55 acre feet available from bedrock wells on site.

First San Diego Aqueduct Relocation Option

Relocation of the First San Diego Aqueduct is not expected to change the long-term water supply capabilities of the aqueduct. There could be a short-term disruption of water flow through the aqueduct during construction. However, it is expected that if this occurs it will be minimal since the existing line would remain in place and provide for continuity of flow until the new pipelines were operational. No significant impacts to water service are expected to result with aqueduct relocation.

4.15.3.11 Mitigation Measures And Project Design Features

Project Design Features

- Approximately 1000 feet of 24 foot wide asphalt roadway will be constructed around Olivenhain's blending reservoir to accommodate recycled water trucks and remove them from the road system.

- A concrete loading pad and a six inch meter will be provided to fill the trucks at Olivenhain's reservoir site to fill the recycled water trucks and avoid spillage.

- A 20,000 gallon recycled water storage tank will be installed on the landfill site that includes a containment tank constructed of an impervious material capable of accommodating the entire volume of water in the tank to avoid spillage of recycled water on site.

- A fill pipe will be used to gravity feed the recycled water from recycled water delivery trucks into the recycled water storage tank to avoid spillage from hand use on site.

- A spill containment area and distribution fill pipe will be constructed on the landfill site to fill trucks for on-site recycled water to avoid a spillage of recycled water and to control and contain any spilled recycled water within the containment area.

- A recycled water supervisor will be retained at the landfill site to supervise and educate all on-site personnel on the proper use and handling of recycled water and to ensure proper operation and handling of recycled water on site.

- Non-Regulatory signs will be posted on Maranatha Drive caution drivers about the presence of the school and children to enhance safety on Maranatha Drive.

- Recycled water trucks will be prohibited from using Maranatha Drive from 6:45 A.M. to 8:15 A.M. and from 2:30 P.M. to 4:15 P.M. daily on days when the Maranatha School is in session.

- The recycled water tank and recycled water trucks will be posted with a large sign stating "RECYCLED WATER – DO NOT DRINK" in large readable English and Spanish print and

all distribution piping will be colored purple or wrapped in purple tape to designate it as recycled water.

- Disinfecting of all water trucks and tanks prior to reuse with other than recycled water.
- Readily available potable or bottled water on site for drinking and hand-washing.
- Each pumping well shall be installed with a controller to cycle the pump on and off at a rate that matches the well's production capability, and maintains the safe yield.
- Project water resources will be prioritized so that, when available, on-site percolating groundwater will be used first for areas designated for biological mitigation, landscape irrigation, and dust control on on-site haul roads and Borrow/Stockpile areas A and B before recycled water is used.
- All construction equipment used at the Reservoir Site shall be equipped with diesel particulate traps and construction activities shall include dust control measures. As part of contracting for recycled water trucks, efforts shall be taken to ensure the use of trucks with particulate traps or trucks that use clean diesel or compressed natural gas, or other options that serve to reduce the emissions of diesel particulates.

4.15.3.12 Level of Significance After Mitigation

With the project design features, potential impacts associated with the use of recycled water or groundwater from bedrock wells on site for project construction and operation will be less than significant. Therefore, no mitigation is required.

4.15.4 WASTEWATER SERVICE AND FACILITIES

[No changes made to this section.]

4.15.5 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

[No changes made to this section.]

4.15.6 LAW ENFORCEMENT

[No changes made to this section.]

4.15.7 SCHOOL FACILITIES

[No changes made to this section.]

4.15.8 ENERGY

[No changes made to this section.]

Chapter 10.0
Project Design Features, Mitigation Monitoring and Reporting Program, and Secondary Impacts

This Chapter section updates the Project Design Features and the Mitigation Measures for the sections included in the Revised Final EIR. The section contains the following changes from the 2003 Draft EIR:

- *Revises the liner design to include a double composite liner system*
- *Adds project features to minimize the impacts of recycled water use*
- *Adds the appointment of a recycled water supervisor to supervise recycled water operations on site*

[Changes to this section are underlined.]

This chapter provides a summary of the revised Project Design Features and the revised mitigation measures, including the timing of verification and the responsible agency. The format is the same as that of the Mitigation Monitoring and Reporting Program (MMRP) provided in Chapter 10 of the 2003 Draft EIR. A MMRP will be prepared upon completion of the environmental review process, which will include the revised measures resulting from the Revised Final EIR as well as measures from the 2003 Draft EIR. Potential secondary effects have been addressed in each of the sections included as part of the Revised Final EIR.

10.1 PROJECT DESIGN FEATURES

[Changes to this section are underlined.]

The following is a summary of the project design features that are incorporated into the project:

4.2 Geology and Soils

[No change is made to this section.]

4.3 Hydrogeology

- A double composite liner system with an additional drainage layer and an additional HDPE geomembrane and a leachate collection system will be installed and monitored as required by the RWQCB. The performance of the landfill will be monitored with the subdrain and groundwater monitoring systems. The subdrain system will be constructed to collect and control groundwater that intersects the subgrade surface. The subdrain system will serve to maintain the separation of five feet between the refuse and groundwater required by federal regulations (40 CFR, Subtitle D, Part 258). The subdrain system will be monitored for the presence of contamination in accordance with the WDR parameters. Monitoring procedures will also be designed consistent with the requirements of the RWQCB.
- The water quality monitoring system will include the installation of monitoring wells at both upgradient (background) and downgradient (point of compliance) locations to the landfill and surface water sampling points both upstream (background) and downstream of the landfill as required by Section 20415 (b) of the Title 27 CCR.
- The project incorporates a combination of engineering controls, (e.g., interim covering of the refuse, suitable slopes for efficient drainage, culverts), and a water quality monitoring program, to ensure that water quality is adequately protected.
- A reverse osmosis (RO) system will be installed in the southwestern portion of the ancillary facilities area. The RO equipment and interconnecting piping will be constructed above ground inside a concrete containment area with a slatted chain link fence around the area. The RO system will be sized to process 50 gpm (although the housing will be sized to allow for a larger system).
- Two 10,000-gallon leachate collection storage tanks will be located in the southwestern portion of the ancillary facilities area. The collection tanks will be monitored for capacity at least once per day.
- Water discharge from the subdrain system will be collected in a 10,000-gallon holding tank in the southwest portion of the ancillary facilities area. Although greater volumes are not anticipated, if needed, additional above ground tanks will be added to collect all of the subdrain system water. Subdrain system drainage water will be reused on-site or may be discharged to the San Luis Rey River only after tests determine the water is not contaminated in accordance with a NPDES permit. Any contaminated water will be treated at the landfill by the on-site reverse osmosis system for on-site use or transported to an appropriate off-site disposal facility.

4.4 Surface Hydrology

[No change is made to this section.]

4.5 Traffic and Circulation

- SR 76 will be improved at the access road as shown in Exhibit 3-6 to provide adequate width for the eastbound deceleration lane and a westbound turn lane and to improve sight distance per Caltrans requirements. The improvements, which are approximately 1700 linear feet,

will realign SR 76 to the south of the existing alignment and will widen the roadway to 52 to 64 feet.

- Non-regulatory signs will be posted on Maranatha Drive cautioning drivers about the school activities and the presence of children, if not installed by the school.

- Construction traffic to complete the improvement of the OMWD Reservoir Site and recycled water trucks will be prohibited from using Maranatha Drive from 6:45 A.M. to 8:15 A.M. and from 2:30 P.M. to 4:15 P.M. daily on days when the Maranatha School is in session.

- The installation of a traffic signal at the intersection of SR-76 and the landfill access road subject to the approval of Caltrans.

- Recycled water truck drivers may only utilize Maranatha Drive, Camino del Norte/Camino del Sur between Maranatha Drive and I-15, I-15 between Camino del Norte and SR-76 and SR-76 east of I-15 and the landfill access road.

4.6 Noise and Vibration

[No change is made to this section.]

4.7 Air Quality and Air Toxics Health Risks

[No change is made to this section.]

4.9 Biological Resources

[No change is made to this section]

4.13 Aesthetics

[No change is made to this section.]

4.15 Public Services and Utilities

The following project design features have been incorporated into the project design to reduce the potential for fire hazards at the project site:

[No change is made to this section.]

The following project design features have been incorporated into the project to accommodate recycled water and to avoid potential impacts from the use of recycled water on site:

- Approximately 1000 feet of 24 foot wide asphalt roadway will be constructed around Olivenhain's blending reservoir to accommodate recycled water trucks and remove them from the road system.

- A concrete loading pad and a six inch meter will be provided to fill the trucks at Olivenhain's reservoir site to fill the recycled water trucks and avoid spillage.

- A 20,000 gallon recycled water storage tank will be installed on the landfill site that includes a containment tank constructed of an impervious material capable of accommodating the entire volume of water in the tank to avoid spillage of recycled water on site.

- A fill pipe will be used to gravity feed the recycled water from recycled water delivery trucks into the recycled water storage tank to avoid spillage from hand use on site.

- A spill containment area and distribution fill pipe will be constructed on the project site to fill trucks for on-site recycled water to avoid a spillage of recycled water and to control and contain any spilled recycled water within the containment area.

- A recycled water supervisor will be retained at the landfill site to supervise and educate all on-site personnel on the proper use and handling of recycled water and to ensure proper operation and handling of recycled water on site.

- Signs will be posted on Maranatha Drive to caution drivers about school activities and the presence of children to enhance safety on Maranatha Drive.

- Recycled water trucks will be prohibited from using Maranatha Drive from 6:45 A.M. to 8:15 A.M. and from 2:30 P.M. to 4:15 P.M. daily on days when the Maranatha School is in session.

- The recycled water tank and recycled water trucks will be posted with a large sign stating "RECYCLED WATER – DO NOT DRINK" in large readable English and Spanish print and all distribution piping will be colored purple or wrapped in purple tape to designate it as recycled water.

- Disinfecting of all water trucks and tanks prior to reuse with other than recycled water.

- Readily available potable or bottled water on site for drinking and hand-washing.

- Each pumping well shall be installed with a controller to cycle the pump on and off at a rate that matches the well's production capability, and maintains the safe yield.

- Project water resources will be prioritized so that, when available, on-site percolating groundwater will be used first for areas designated for biological mitigation, landscape irrigation, and dust control on on-site haul roads and Borrow/Stockpile areas A and B before recycled water is used.

- All construction equipment used at the Reservoir Site shall be equipped with diesel particulate traps and construction activities shall include dust control measures. As part of contracting for recycled water trucks, efforts shall be taken to ensure the use of trucks with

particulate traps or trucks that use clean diesel or compressed natural gas, or other options that serve to reduce the emissions of diesel particulates.

4.16 Human Health and Safety

[No change is made to this section.]

10.2 MITIGATION MONITORING AND REPORTING PROGRAM

[Changes to this section are underlined.]

The San Diego County Department of Environmental Health (DEH), as the Lead Agency and Local Enforcement Agency, will adopt a Mitigation Monitoring and Reporting Program (MMRP) in accordance with Public Resources Code (PRC) Section 21081.6. The purpose of the MMRP is to ensure that the project complies with all applicable environmental mitigation and permit requirements.

Table 10-1 contains mitigation measures that have been revised or added as a result of the analyses contained in the Revised Final EIR. The measures are organized and referenced by subject category and include those for: Traffic and Circulation, Biological Resources, Archaeological and Cultural Resources, and Ethnohistory and Native American Interests.

Each measure has a numerical reference. The first two numbers, for example 4.1, refer to the section in the EIR. The last number, for example -1, refers to the identified impact that the mitigation measure addresses. The MMRP identifies the mitigation measure as well as the timing of implementation and the responsible party that will ensure that each action is implemented.

Mitigation measures applicable to the Project include avoiding certain impacts altogether, minimizing impacts by limiting the degree or magnitude of the action and its implementation, rectifying impacts by repairing, rehabilitating, or restoring the affected environment, and/or reducing or eliminating impacts over time by preservation and maintenance operations during the life of the action.

PRC Section 21081.6 requires the Lead Agency for each project, which is subject to the California Environmental Quality Act (CEQA) to monitor performance of the mitigation measures included in any environmental document to ensure that implementation does occur. DEH is the designated lead agency for the Mitigation Monitoring and Reporting Program. DEH is responsible for review of all monitoring reports, enforcement actions, and document disposition. DEH will rely on information provided by the monitor as accurate and up to date and will field check mitigation measure status as required.

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	DATE
	4.1 LAND USE					
	[No change is made to this section.]					
	4.2 GEOLOGY AND SOILS					
	[No change is made to this section.]					
	4.3 HYDROGEOLOGY					
	[No change is made to this section.]					
	4.5 TRAFFIC AND CIRCULATION					
MM 4.5-1	The project applicant shall conduct a structural analysis of SR 76 and determine the structural requirements along SR 76 from the Rosemary Mountain Palomar Aggregates project to the proposed landfill entrance to determine whether the existing foundation can accommodate anticipated heavy truck loads. The applicant shall obtain certification from Caltrans for adequate pavement surface to be enforced by the County Department of Public Works. This analysis shall be extended west of the I-15 ramps if the Palomar Aggregate project is not implemented. Construction of the recommended pavement improvements, consistent with Caltrans requirements shall be implemented prior to operation of the landfill, if determined necessary, and fair share contribution made by the applicant.	Written report by applicant's traffic consultant Field inspection if improvements are necessary	Prior to acceptance of solid waste Prior to acceptance of solid waste	Caltrans and County Department of Public Works		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
MM 4.5-2	Total project traffic from all sources on any day shall not exceed 2,085 PCE trips or maximum of 675 trucks from all sources. The project shall maintain computerized daily records of total truck trips per day and total project traffic from all sources. These records shall be available for review by the Department of Environmental Health during operational hours. When the project traffic equals 2,085 PCE trips or 675 trucks in any day, the landfill shall be shut down for the balance of that day. The facility will notify the LEA prior to closure. Once 95% of the maximum daily traffic limit is reached, the landfill operator shall immediately notify commercial waste haulers to curtail waste deliveries, pursuant to the contract arrangements described in MM 4.5-3, as needed to assure compliance with the maximum daily traffic limits. Notwithstanding the above, the landfill operator may not refuse acceptance of any waste collection vehicle that was traveling on SR 76 east of I-15 at the time notice was given.	Daily operational records of project traffic	As required	County Department of Environmental Health		
MM 4.5-3	Project traffic shall be limited to the following total trips: TIME — TOTAL TRIPS 2:00 P.M. – 3:00 P.M. — 215 PCE trips or 72 trucks 3:00 P.M. – 4:00 P.M. — 111 PCE trips or 37 trucks 4:00 P.M. – 5:00 P.M. — 111 PCE trips or 37 trucks These hourly restrictions shall terminate when SR 76 is widened to four lanes between I-15 and the landfill access road. Each contract for waste delivery at the landfill shall notify the customer of the peak hour traffic restrictions, shall require that the customer cooperate in good faith in scheduling deliveries to adhere to peak hour restrictions, and shall implement a notification system whereby the customer would be directed to use alternative disposal facilities as needed to assure compliance with the peak hour traffic restrictions. Compliance with peak hour traffic restrictions shall be monitored on the inbound lane of the landfill access road at a location as near as feasible	Daily operational records of project traffic	As required	County Department of Environmental Health		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	to SR 76. Vehicle trips will be counted manually or, if feasible, electronically, and where appropriate converted into PCE. If traffic counts are obtained or compiled electronically, and if feasible, traffic count data shall be made available to the Department of Environmental Health at its offices on a real-time basis. The landfill operator shall report traffic count information to the Department of Environmental Health weekly in writing. Once 75% of the peak hourly restriction is reached, the landfill operator shall immediately notify commercial waste haulers to curtail waste deliveries, pursuant to the contract arrangements described above, as needed to assure compliance with the peak hour traffic restrictions. Notwithstanding the above, the landfill operator may not refuse acceptance of any waste collection vehicle that was traveling on SR 76 east of I-15 at the time notice was given.					
MM 4.5-4	At the commencement of operation, the project applicant shall pay the County's Transportation Impact Fee to fund its fair share of improvements to address cumulative impacts. The Regional Transportation Plan (RTP) adopted by SANDAG includes freeway build-out over the next 30 years including the necessary improvements to SR 76 and its intersections with Highway 395 and I-15. The project will receive a credit against this fee for the value of monetary and non-monetary contributions to improvements of SR 76 undertaken by the project as a project design feature or mitigation in accordance with and consistent with Proposition C and County policies and procedures.	Payment of County Transportation Impact Fee	At commencement of operation	County Department of Public Works		
MM 4.5-5	At the commencement of operation, the project applicant shall make a fair-share contribution for the addition of an eastbound left turn lane and westbound through lane on the I-15 overcrossing.	Payment of fair share contribution	At commencement of operation	Caltrans and County Department of Public Works		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
MM 4.5-6a	At the commencement of operation, the project applicant shall pay the County's Transportation Impact Fee to fund its fair share of cumulative impacts to SR 76 and the intersections subject to the credits described in mitigation measure 4.5-4.	Payment of County Transportation Impact Fee	At commencement of operation	County Department of Public Works		
MM 4.5-7	The project shall conduct a structural integrity test on the Maranatha Drive pavement to determine ultimate load bearing of the roadway. If necessary, the project shall provide the required pavement overlay to support the heavy vehicle loads that would occur on Maranatha Drive. Any necessary repaving or construction along Maranatha Drive shall be done outside of the operation of the school (i.e., weekends or school breaks) so as to not disrupt school activities.	Written report by applicant's traffic consultant; Field inspection if improvement are necessary	Prior to trucking of recycled water from the Reservoir Site to the landfill site	County Department of Public Works		
MM 4.5-6b	The Project Applicant shall make an irrevocable offer of dedication for right-of-way to 108 feet in width within the Project boundary for the widening of SR 76 to four lanes for the County of San Diego Circulation Element, including a designated bike route.	Dedication of easement	Request by Caltrans	Caltrans and County Department of Public Works		
	4.6 NOISE AND VIBRATION					
	[No change is made to this section.]					
	4.7 AIR QUALITY & AIR TOXIC HEALTH RISKS					
	[No change is made to this section.]					
	4.9 BIOLOGICAL RESOURCES					
MM 4.9a:	A pre-construction meeting shall take place with a qualified biologist and construction personnel. The biologist shall explain the access restrictions on site, the importance of remaining within construction zones, the sensitivity of the habitats and species on site, and shall explain the potential consequences of violating the access restrictions and impacting biological resources outside the construction zones. Any	Letter from applicant's contractor(s) verifying receipt of biological	Prior to commencement of construction	County Department of Environmental Health		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	DATE
	accidental impacts to sensitive habitat that occur outside the designated impact area shall be mitigated at a 3:1 ratio. A letter from the applicant's biologist and contractor(s) verifying receipt of biological information shall be provided to the County Department of Environmental Health prior to commencement of construction.	information				
MM 4.9b	In the event any final judgment is entered in San Diego Superior Court Case No. GIN038227 determining that the creation or enhancement of habitat on the landfill site within the 1313 acres of dedicated open space provided by Proposition C violates any provision of Proposition C, or cannot be relied upon as mitigation for purposes of compliance with CEQA because of Proposition C, then any of these mitigation measures permitting the creation or enhancement of habitat on-site shall be construed to mandate off-site acquisition of this habitat. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to off-site dedicated open space. Provided the off-site acquisition is consistent with that approved plan, the off-site acquisition may occur anywhere within the unincorporated area of San Diego County. A conservation easement shall be placed across the mitigation area to permanently protect the resources.	Review of Court order	Upon Court decision	County Department of Environmental Health		
MM 4.9-1a:	Impacts to 170.8 acres of coastal sage scrub, 1.7 acres of disturbed coastal sage scrub, and 51.5 acres of coastal sage scrub/chaparral shall be mitigated at a minimum ratio of 2:1 through on-site creation or enhancement of 63.6 acres of coastal sage scrub habitat or coastal sage scrub/chaparral habitat, and the off-site acquisition of 384.4 acres of coastal sage scrub or coastal sage scrub/chaparral habitat. The final amounts of mitigation of these habitats shall be a total of 448 acres with at least 345 acres of coastal sage scrub and 103 acres of either coastal sage scrub or coastal sage scrub/chaparral habitat. The on-site creation or enhancement of this resource shall be in a dedicated open space area. Off-site acquisitions may occur anywhere within the unincorporated	Verification of recordation of open space easement on site encompassing the coastal sage scrub and coastal sage scrub/ chaparral mitigation areas	Prior to commencement of brushing or clearing of coastal sage scrub and coastal sage scrub/ chaparral or at a point in time determined appropriate through consultation with the applicable	U.S. Fish & Wildlife Service, California Department of Fish & Game, County Department of Environmental Health and Department of Planning and Land Use		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the coastal sage scrub habitat on site or as determined in consultation with the resource agencies.	or verification of off-site acquisition	regulatory agencies			
MM 4.9-1b:	Impacts to 22.6 acres of coast live woodland shall be mitigated at a minimum ratio of 3:1 by the on-site creation of 67.8 acres of coast live oak woodland. The on-site creation or enhancement of this resource shall be in a dedicated open space area. The implementation of this mitigation shall be prior to or concurrent with the first construction that impacts coast live oak woodland or as determined in consultation with the resource agencies.	Preparation of mitigation plan by applicant's biologist. Letter approval of plan by resource agencies or verification of off-site acquisition	Prior to commencement of clearing or grading of the coast live oak woodland ~~southern willow scrub and mule fat scrub~~ or as otherwise determined in consultation with resource agencies	U.S. Fish and Wildlife Service, Army Corps of Engineers, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-1c:	Impacts to 0.6 acres of native perennial grassland shall be mitigated at a minimum ratio of 3:1 through off-site acquisition of 1.8 acres of native perennial grassland. The off-site acquisition may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which	Preparation of a habitat enhancement plan by the applicant's biologist or verification of off-site acquisition	~~After residences and dairy removed~~ Prior to or concurrent with construction that first disturbs native perennial grassland or as determined in consultation with the appropriate	County Department of Environmental Health and Department of Planning and Land Use		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the native perennial grassland on site or as determined in consultation with the appropriate agencies.		agencies			
MM 4.9-1d:	Impacts to 0.4 acres of southern willow scrub and 0.4 acres of disturbed southern willow scrub shall be mitigated at a minimum ratio of 4:1 by the on-site creation or enhancement of 3.2 acres of southern willow scrub habitat. On-site creation or enhancement shall be in an area dedicated as open space. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the southern willow scrub or as determined in consultation with the resource agencies.	Preparation of a habitat enhancement plan by the applicant's biologist or verification of off-site acquisition	Prior to commencement of clearing or grading of the southern willow scrub ~~coast live oak woodland~~ or as otherwise determined in consultation with the resource agencies ~~County~~	California Department of Fish and Game, County Department of Environmental Health and Department of Planning and Land Use		
MM 4.9-1e	Impacts to 0.2 acre of open channel shall be mitigated through implementation of the Wetland Mitigation and Habitat Enhancement Plan described in MM 4.9-18 to restore habitat in the San Luis Rey River watershed on site.	Preparation of mitigation plan by applicant's biologist	After residences and dairy removed.	US Fish & Wildlife Service, Army Corps of Engineers, California Department of Fish and Game, County Department of Environmental Health and department of Planning and Land Use		
MM 4.9-1f:	Impacts to 0.2 acres of cottonwood willow riparian forest shall be mitigated at a minimum ratio of 4:1 by the on-site creation or enhancement of 0.8 acres of cottonwood willow riparian forest. On-site creation or enhancement shall be in an area dedicated as open space. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the cottonwood-willow riparian	Preparation of mitigation plan by applicant's biologist and letter approval of plan by	Prior to or concurrent with construction that impacts the cottonwood willow riparian forest or as	County Department of Environmental Health and County Department of Planning and Land Use		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	forest on site or as determined in consultation with the appropriate agencies.	resource agencies or verification of off-site acquisition	determined in consultation with the County			
MM 4.9-1g:	Impacts to 27.4 acres of chaparral and 15.8 acres of non-native grassland shall be mitigated at a minimum ratio of 0.5:1 through off-site acquisition of 13.7 acres of chaparral and 7.9 acres of non-native grassland. Off-site acquisitions may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs the chaparral or non-native grassland habitat on site or as determined in consultation with the resource agencies.	Preparation of mitigation plan by applicant's biologist and letter approval of plan by resource agencies or verification of off-site acquisition	Prior to or concurrent with construction that impacts Chaparral and non-native grassland as determined in consultation with the County	County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-1h:	Temporary construction fencing shall be erected under the supervision of a qualified biologist outside the delineated boundary of dedicated open space where it interfaces with impact areas and permanent fencing marked with signs shall be installed around the mitigation areas. Where impact areas are adjacent to coast live oak woodland, fencing shall be erected outside the canopy area at a distance of 1.5 times the canopy radius of the outer trees. This fencing shall be erected prior to commencement of brushing or grading activities. The fencing (for example, strand wire or split rail) shall restrict human and equipment access but shall allow for wildlife movement.	Letter from applicant's biologist/field verification	Prior to commencement of brush clearing or grading	County Department of Environmental Health		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
MM 4.9-2:	A 3:1 minimum replacement acreage (based on canopy area) of Engelmann oak trees shall be created by on-site creation or enhancement of this replacement acreage within the same area designated for creation or enhancement of coast live oak woodland, if possible. Otherwise, a separate acquisition of Engelmann oak trees at 3:1 minimum replacement acreage shall be required. Any on-site creation or enhancement shall be in an area dedicated as open space. Off-site acquisitions may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed across the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. This acreage shall then be subtracted from the coast live oak woodland mitigation requirement (MM 4.9-1b) to avoid duplicate mitigation. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with the first construction that disturbs Engelmann oak or as determined in consultation with the resource agencies	Letter from applicant's biologist	Prior to commencement of construction in the area of Engelmann oak or at a point in time as determined appropriate through consultation with the County of San Diego	County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-3a:	In addition to the riparian habitat creation or enhancement described in MM4.9-1d and f, implementation of the Wetland Mitigation and Habitat Enhancement Program described in MM4.9-18 shall be undertaken to mitigate impacts to arroyo southwestern toad riparian breeding habitat.	See MM 4.9-1b and MM 4.9-1d	See MM 4.9-1b and MM 4.9-1d	See MM 4.9-1b and MM 4.9-1d		
MM 4.9-3b:	The removal of toad riparian breeding habitat from riparian vegetation clearing and channel excavation for the bridge shall occur from October through December to minimize potential impacts to breeding adults (including potential sedimentation impacts to toad eggs) and dispersing juveniles.	Construction contract addressing Timing	Prior to commencement of construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
				Planning and Land Use		
MM 4.9-4:	Impacts to the 17.5 acres of suitable arroyo southwestern toad upland habitat on site impacted by the project shall be mitigated through on site creation or enhancement of 88 acres of arroyo toad habitat The on-site creation or enhancement of this resource shall be in a dedicated open space area. The implementation of the mitigation shall be prior to or concurrent with the first construction that impacts the upland arroyo toad habitat on site or as determined in consultation with the resource agencies.	Preparation of mitigation plan by applicant's biologist and letter approval of plan by resource agencies or verification of off-site acquisition	Prior to commencement of clearing or grading that disturbs arroyo toad habitat	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-5a:	The construction zone for the bridge shall be fenced with exclusion fencing to prevent toad access to the construction zone. The fencing shall be a silt-screen type barrier comprised of a minimum 24-inch high fence with the remainder (minimum 12 inches) anchored firmly against the ground. The fence may be buried if necessary to exclude toad access. The fence locations shall be identified by a qualified biologist and adjusted as necessary.	Letter from applicant's biologist based on field verification	Prior to commencement of construction of bridge	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
	Exclusion fencing shall be monitored daily by a qualified biologist, and maintained in its original condition by construction personnel for the entire length of the construction period.	Written report from applicant's biologist monthly	Daily monitoring	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health, County Department of Planning and Land Use		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
MM 4.9-5b:	Pre- and post-exclusion fencing surveys within the construction zone for the bridge shall be conducted for arroyo southwestern toads by a biologist permitted by the USFWS to handle the toad. Prior to construction commencement, a minimum of three surveys shall be conducted by this biologist following installation of the fencing. Daily surveys shall be conducted each morning prior to construction activity. Any toads found shall be relocated to appropriate similar habitat outside project impact areas and in dedicated open space.	Written report from biologist permitted by U.S. Fish and Wildlife Service to handle toad	Prior to construction, minimum of 3 surveys following installation of the fencing, then daily surveys before construction begins	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-5c:	Exclusion fencing shall be installed along both sides of the access road for its entire length (except where sides of bridge act as barrier) as part of access road construction. The same exclusion fencing shall also wrap around the northern edge of the facilities area and continue east and south around the 1.8-acre desiltation basin. The fencing shall continue until the topography becomes too steep or rocky on the east side of the landfill footprint as determined by a qualified biologist. The fencing shall be of a corrugated metal or other similar durable material and shall be a minimum of 24 inches high.	Field verification	At the time of access road construction	County Department of Environmental Health or County Department of Planning and Land Use		
MM 4.9-5d:	A minimum of three surveys shall be conducted by a biologist permitted by the USFWS to handle the arroyo southwestern toad following installation of the exclusion fencing along the access road and prior to access road use. Any toads found shall be relocated to appropriate similar habitat outside project impact areas and in dedicated open space.	Written report from biologist permitted by U.S. Fish and Wildlife Service to handle toad	Following installation of exclusion fencing and prior to access road use	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-5e:	A minimum of three surveys shall be conducted by a biologist permitted by the USFWS to handle the arroyo southwestern toad following installation of exclusion fencing around the facilities area and desiltation basin as described in MM 4.9-5c. Up to three additional surveys shall	Written report from biologist permitted by U.S. Fish and	Following installation of exclusion fencing	U.S. Fish and Wildlife Service, California Department of Fish and Game, County		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	be conducted if favorable temperature and moisture conditions for toad activity have not already occurred during the first three surveys. Any toads found shall be relocated to appropriate similar habitat outside project impact areas and in dedicated open space.	Wildlife Service to handle toad		Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-5f:	At least one road undercrossing shall be installed in the fill beneath the access road north and south of the river. The design of the undercrossings shall be approved by the USFWS.	Field verification	At the time of access road construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-5g:	Exclusion fencing of the material and design described in MM 4.9-5c shall be installed on the north side of the haul road to Borrow/Stockpile Area A. The fencing shall be installed prior to initial project construction and shall be removed when initial project construction is complete, and the haul road is no longer in use. The exclusion fencing shall be re-installed prior to the use of Borrow/Stockpile Area A, which begins again in approximately year 25. The fencing shall be removed once the landfill is completely closed and the haul road is no longer in use.	Field verification	Prior to construction and during inspection by Department of Environmental Health	County Department of Environmental Health or County Department of Planning and Land Use		
MM 4.9-5h:	A minimum of three surveys shall be conducted by a biologist permitted by the USFWS to handle the arroyo southwestern toad following installation and re-installation of the exclusion fencing along the access road to Borrow/Stockpile Area A prior to its use. Up to three additional surveys shall be conducted during the use period if favorable temperature and moisture conditions for toad movement have not already occurred during the three original surveys. Any toads found shall be relocated to appropriate similar habitat outside project impact	Written report from biologist permitted by U.S. Fish and Wildlife Service to handle toad	Following installation and re-installation of exclusion fencing along the access road to Borrow/Stockpile Area A	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	areas and in dedicated open space.			Planning and Land Use		
MM 4.9-5i:	Exclusion fencing of the material and design described in MM 4.9-5c shall be installed along both sides of the low-flow crossing until the road connects with the haul road described in MM 4.9-5g. The fencing shall be installed during initial project construction and shall be removed when initial project construction is complete, and the crossing is no longer in use. A minimum of three surveys shall be conducted by a biologist permitted by the USFWS to handle the arroyo southwestern toad following installation of the fencing, and daily surveys shall be conducted each morning prior to use of the low-flow crossing. Any toads found shall be relocated to appropriate similar habitat outside project impact areas and in dedicated open space.	Field verification	During initial project construction (3 surveys following installation of fencing and daily prior to use of low-flow crossing) and after crossing is no longer in use.	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-6:	The USFWS (1999c) has indicated in the Final Recovery Plan for the species that short-term negative effects to individual toads from such activities may be offset by the long-term positive effects of implementing such a habitat enhancement program. Therefore, the habitat enhancement plan described in MM 4.9-18 shall be implemented. The final plan shall include precautions where possible to avoid impacts to the arroyo southwestern toad.	Preparation and acceptance of habitat enhancement plan	Prior to construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-7:	Prior to final design, the bridge abutment design specifications shall indicate that gaps in the riprap be filled with concrete.	Approval of final design plans	Final design submittal	County Department of Environmental Health, County Department of Planning and Land Use		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
MM 4.9-8:	The northernmost tower shall be replaced during the period of July through October to avoid the golden eagle breeding season.	Construction contract addressing timing	Prior to commencement of construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-9a:	Access to the Gregory Canyon nesting site(s) shall be restricted to eagle specialists and researchers conducting monitoring.	Field verification	Prior to commencement of construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-9b:	Prior to ground disturbance, a pre-construction survey for the eagle pair shall be conducted to determine if and where the eagles are nesting on site. Weekly monitoring of the eagle pair shall be conducted by an eagle specialist during the breeding season (December through May) to confirm the eagle pair is exhibiting reproductive behavior patterns, such as nest building. After one year of construction activity, if the monitoring determines that the eagles have abandoned the site, the applicant shall create a habitat acquisition fund for purchase and preservation of off-site known or potential golden eagle nesting habitat or shall purchase an equivalent amount of golden eagle nesting habitat to be included in the MSCP Preserve. The amount of funding or habitat purchase shall be negotiated with the County.	Written report by biologist, payment of fees, if applicable	Prior to construction weekly during breeding season, and one year after construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
MM 4.9-9c:	Initial landfill construction activity less than 2,000 feet from the eagle's nest shall begin as close to the end of the eagle breeding season in June to allow the eagle pair on site to become conditioned to the activity prior to the next breeding season starting in December.	Field verification	Prior to commencement of construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-10:	The southernmost tower shall be moved during the period of June through November or at any time when the nest is not active. Likewise, any raptor nest removal shall only occur when the nest is inactive. A qualified biologist shall determine whether or not a raptor nest is active.	Construction contract addressing timing and field verification	During June through November or when nest is inactive	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-11a:	Removal of any riparian habitat shall only occur from October through December to avoid the breeding seasons of these bird species and to minimize potential impacts to the arroyo southwestern toad.	Preparation of mitigation plan by applicant's biologist. Letters of appropriate planning resource agencies	Prior to commencement of clearing or grading of riparian habitat	U.S. Fish and Wildlife Service, Army Corps of Engineers, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
MM 4.9-11b:	Impacts to vireo and flycatcher habitat shall be mitigated through riparian habitat creation as described under MM 4.9-1d. The Wetland Mitigation and Habitat Enhancement Plan described under MM 4.9-18 would also benefit these species.	Preparation of mitigation plan by applicant's biologist. Letters of appropriate planning resource agencies	Prior to commencement of clearing or grading of vireo and flycatcher habitat or as otherwise determined in consultation with resource agencies	U.S. Fish and Wildlife Service, Army Corps of Engineers, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-11c:	The project applicant shall provide funding for cowbird trapping along the San Luis Rey River on the project site for a period of five years from initial landfill operation.	Written report prepared by the applicant's biologist or the land manager of the 1,313 acres of open space	Annually	California Department of Fish and Game, U.S. Fish and Wildlife Service		
MM 4.9-12a:	Daily noise monitoring by a qualified acoustician shall be conducted between March 15 and September 15 during initial construction to verify that noise levels are below 60 dB(A) L_{eq} in vireo and flycatcher habitat. If the 60 dB(A) L_{eq} is exceeded, the acoustician shall work with the construction contractor to make operational changes and/or barriers designed by the acoustician shall be installed prior to March 15 or immediately if during the breeding season, to reduce noise levels during the breeding season. Weekly noise monitoring shall occur following operational changes and/or installation of barriers to ensure their effectiveness. If ineffective, the acoustician shall work with the construction contractor to make additional operational changes or to install other barriers that would reduce noise to less than 60 dB(A) L_{eq}.	Noise analysis prepared by applicant's noise specialist	Daily between March 15th and September 15th during initial construction. If noise barriers are required, weekly monitoring to ensure their effectiveness	County Department of Environmental Health		
MM 4.9-12b:	The low-flow crossing shall only be used between September 15 and March 15. Use of the crossing could occur outside of that time period if daily monitoring by a qualified biologist determines that vireos and	Field verification by biologist.	Daily between September 15th and March 15th	County Department of Environmental Health		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	flycatchers have not yet arrived on site or have migrated out of the area early, or if operational changes can be made and/or barriers designed by an acoustician can be installed prior to March 15 to reduce noise levels to less than 60 dB(A) L_{eq} in the vireo and flycatcher habitat. Daily noise monitoring shall be conducted in accordance with MM 4.9-12a and noise reduction measures contained in MM 4.9-12a shall be implemented, if necessary.	Noise analysis prepared by applicant's noise specialist				
MM 4.9-12c:	Bridge construction shall only occur between September 15 and March 15 unless daily monitoring by a qualified biologist during the breeding season determines that vireos and flycatchers have not yet arrived on site or have migrated out of the area early or if operational changes can be made and/or barriers designed by an acoustician can be installed prior to March 15 to reduce noise levels to less than 60 dB(A) L_{eq} in vireo and flycatcher habitat. Daily noise monitoring shall be conducted in accordance with MM 4.9-12a and noise reduction measures contained in MM 4.9-12a shall be implemented, if necessary.	Field verification by biologist. Noise analysis prepared by applicant's noise specialist	Daily between September 15th and March 15th	County Department of Environmental Health		
MM 4.9-13:	Mitigation activities shall only occur between September 15 and March 15 unless operational changes can be made and/or barriers designed by an acoustician can be installed prior to March 15 to reduce noise levels to less than 60 dB(A) L_{eq} in vireo and flycatcher habitat. Daily noise monitoring shall be conducted between March 15 and September 15 to verify that the measures are effective. If the 60 dB(A) L_{eq} is exceeded, the acoustician shall work with the contractor to make additional operational changes or to install additional barriers that would reduce noise to less than 60 dB(A) L_{eq}.	Field verification by biologist. Noise analysis prepared by applicant's noise specialist	Daily between September 15th and March 15th	County Department of Environmental Health		
MM 4.9-14:	Indirect impacts to a total of 20.0 acres of vireo and flycatcher habitat caused by project traffic noise shall be mitigated through on-site creation or enhancement of 17.1 acres of vireo and flycatcher habitat, and the off-site acquisition of 2.9 acres of vireo and flycatcher habitat. On-site and off-site mitigation areas would not be affected by noise levels of 60 dB (A) L_{eq} or greater as a result of project-generated or cumulative traffic. Any on-site creation or enhancement shall be in area dedicated as open space. Any off-site acquisition may occur anywhere	Verification of on-site creation or off-site acquisition of 20.0 acres of vireo and flycatcher habitat	Prior to construction that disturbs the vireo and flycatcher habitat	U.S. Fish and Wildlife Service, Army Corps of Engineers, California Department of Fish and Game, County Department of Environmental Health and County		

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MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	within the unincorporated area of San Diego County and a conservation easement shall be placed across the area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or mitigation credits from a habitat manager, mitigation bank or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to any off-site properties for which management practices in accordance with County requirements have not already been established. The implementation of this mitigation shall be prior to or concurrent with construction that impacts vireo or flycatcher habitat or as otherwise determined in consultation with the resource agencies.			Department of Planning and Land Use		
MM 4.9-15a:	A temporary 12-foot high wall or berm shall be constructed along the northern edge of Borrow/Stockpile Area A outside the vireo/flycatcher breeding season (March 15 to September 15) and prior to the use of Borrow/Stockpile Area A. The barrier can be removed once topography provides the necessary noise barrier to reduce noise levels in the habitat during the breeding seasons to less than 60 dB(A) L_{eq}.	Construction contract addressing timing and noise analysis	Prior to use of Borrow/ Stockpile Area A	County Department of Environmental Health		
MM 4.9-15b:	Noise monitoring shall be conducted weekly for up to one month by a qualified acoustician to verify that operational noise levels are below 60 dB(A) L_{eq} in vireo and flycatcher habitat. If noise levels equal or exceed 60 dB(A) L_{eq}, a 16-foot high permanent noise wall shall be installed prior to the vireo breeding season (March 15 to September 15, includes flycatcher breeding season) or immediately if during the breeding season. If noise levels exceed 60dB(A) L_{eq} during the breeding season, operational changes shall be made to reduce noise levels to less than 60 dB(A) while the noise wall is being constructed. The noise wall shall be constructed east of the knoll between the internal haul road and the top of slope for the facilities area to block truck noise emanating into the habitat.	Noise analysis prepared by applicant's noise specialist	During operations weekly, up to one month March 15th to September 15th, in necessary	County Department of Environmental Health		
MM 4.9-16:	Throughout the life of the project, access routes shall be restricted to existing roads, and entry into non-impact areas shall be restricted by the landfill operator. Areas not directly impacted by the project shall be posted with signs precluding access due to habitat sensitivity. A public	Field verification. Preparation and submittal of	Throughout life of project	County Department of Environmental Health		

TABLE 10-1
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	education program shall be developed by a qualified biologist and shall be implemented to inform landfill staff and visitors about access restrictions and the sensitivity of habitats on site.	public education program				
MM 4.9-17a:	Control of invasive, exotic plant species shall occur as described in the habitat enhancement plan presented in MM 4.9-18 and shall include the channel excavation area associated with construction of the bridge.	Preparation and acceptance of Habitat Enhancement Plan	Prior to construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-17b:	Temporary and permanent slopes shall be revegetated with native plant species to inhibit the growth of non-natives.	Preparation and acceptance of Habitat Enhancement Plan	Prior to construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		
MM 4.9-18:	The project applicant shall implement a habitat enhancement plan to improve the San Luis Rey River watershed on site as described below and within the enhancement area shown in Exhibit 4.9-6 of the Revised Final EIR in accordance with the Wetland Mitigation and Habitat Enhancement Plan set forth in Appendix L, as updated and modified. Beyond the mitigation obligation associated with compensating for direct and indirect project impacts to vegetation communities, the project applicant for the Gregory Canyon Landfill shall be required to implement a habitat enhancement program for improvements to the San	Preparation and acceptance of Habitat Enhancement Plan	Prior to construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and County Department of Planning and Land Use		

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	Luis Rey River watershed. In addition to the proposed open space dedication (1,313 acres), the project applicant shall create or enhance 131.4 acres of upland areas and 81.2 acres of riparian areas within the portion of the San Luis Rey River corridor contained on site (Exhibit 4.9-6). The restoration would likely be phased and would not occur all at one time. The habitat enhancement program shall focus on the restoration of riparian and upland habitats within the San Luis Rey River floodplain on site, in the areas indicated on Exhibit 4.9-6, above and beyond the project's direct mitigation obligations for vegetation community impacts. The San Luis Rey River has been identified as one of the most easily restorable rivers in southern California (ACOE 1981). This portion of the program shall consist of the restoration of lost and/or damaged habitat and water quality caused by the long-term agricultural use of the property and the removal of highly invasive, exotic plant species. The project applicant is proposing to remove the existing Verboom dairy operations and most structures and all equipment associated with the Verboom and Lucio dairies from the site in concert with the initial construction of the landfill. Under this enhancement program, man-made berms and weed seed banks in the river's watershed shall be excavated to restore more historic river flows and invasive, non-native plant species would be replaced with native plantings. The excavation shall be focused on bringing the ground elevations down to a level that would connect the areas hydrologically with the existing groundwater system and to create a series of terraces that taper into the existing upland habitat. The excavation would be done in a manner that would prevent adverse effects on upstream and downstream properties. All upland and drier riparian areas shall be planted with tree species known from the site and hand-seeded to initiate native plant re-establishment. Weed control and monitoring shall be implemented regularly during the first five years of the project to prevent the re-establishment of non-native plant species. The goal of the restoration shall be to provide breeding and upland habitat for endangered species and widen the vegetative buffer around the riparian					

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MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	corridor present on site. The dedicated open space on-site, including the restored river corridor, shall be managed with a financial contribution provided by the project applicant. The project applicant shall work with the USFWS and the CDFG to identify a qualified conservancy or other non-profit organization to be responsible for implementing long-term management activities for the restored river. The type of management activities shall depend upon the condition of the site, the resources present, and the funds available to manage those resources. Management activities shall include restriction of vehicular and human access through the installation of fencing and signs, control of exotic species [e.g., brown-headed cowbirds and giant reed (*Arundo donax)*], control of illegal dumping and monitoring endangered species populations. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to on-site dedicated open space, or created or enhanced habitat areas.					
MM 4.9-20:	If project construction activities for the improvements of the Reservoir Site are scheduled to occur during the breeding season for coastal California gnatcatcher (February 15 through August 31), three surveys pursuant to U.S. Fish and Wildlife Service protocol shall be conducted to determine the presence or absence of the species in coastal sage scrub habitat within 500 feet of the improvement. If it is determined that the species is absent, construction may proceed without restrictions. If the coastal California gnatcatcher is present within 500 feet of the improvement, no construction activities shall be allowed between February 15 and August 31, unless shielding is used to reduce construction noise levels to less than 60 dBA L_{eq} at the species' habitat. Shielding shall be approved by a qualified acoustician. No coastal California gnatcatcher-related restrictions will be placed on construction activities outside of the coastal California gnatcatcher breeding season.	If construction of the reservoirs site occurs February 15 through August 31; field verification by biologist	Prior to construction of the improvements at the Reservoir Site	County Department of Environmental Health		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	4.10 PALEONTOLOGICAL RESOURCES					
	[No change is made to this section.]					
	4.11 ARCHAEOLOGICAL & CULTURAL RESOURCES					
	No change is made to the mitigation measures in the 2003 Draft EIR. A new potential impact is disclosed. Mitigation measures are the same as mitigation measures 4.12-1a through 4.12-1e below.	See 4.12-1a through 4.12-1e below	See 4.12-1a through 4.12-1e below	See 4.12-1a through 4.12-1e below		
	4.12 ETHNOHISTORY & NATIVE AMERICAN INTERESTS					
MM 4.12-1a	Prior to commencement of operation of the landfill and as partial fulfillment of MM 4.1-2, the applicant shall either dedicate the portion of the site east of the landfill footprint and relocated SDG&E easement including the western slopes and the top of Gregory Mountain, as permanent open space or execute and convey a permanent open space easement over this area.	Execution of easement	Prior to operation of landfill	County Counsel and County Department of Environmental Health		
MM 4.12-1b	Prior to commencement of operation of the landfill the applicant shall execute and record an access easement to the Pala Band of Mission Indians from the western boundary of the land owned by the Pala Band of Mission Indians to the summit of Gregory Mountain. The access easement shall grant the Pala Band of Mission Indians the right to walk or hike only within the access easement area.	Recordation of access easement	Prior to operation of landfill	County Counsel and County Department of Environmental Health		
MM 4.12-1c	Should the Pala Band agree, the applicant shall, upon commencement of operation of the landfill, pay to the Pala Band of Mission Indians a fixed dollar amount as determined below. Such amount shall be used by the Pala Band to implement measures to enhance and improve access to Gregory mountain from the Pala Reservation. Such measures may include, but are not limited to, a new footpath, clearing of an existing footpath, or the marking of new footpath trail as determined by Pala in	Letter from applicant	Prior to operation of landfill	County Department of Environmental Health		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	its sole discretion. Such dollar amount shall be equal to the estimated cost of restoring the footpath that previously existed from the eastern base of Gregory Mountain to the top of the mountain. This estimate shall be obtained by the applicant from a company experienced in restoring footpaths.					
MM 4.12-1d	In addition to the construction of the trail, should the Pala Band agree, the applicant shall provide funding as needed for the annual maintenance of the trail from the eastern base to the top of the mountain during the operational life of the landfill.	Letter from applicant	Annual	County Department of Environmental Health		
MM 4.12-1e	The applicant shall postpone landfilling activities on the western slope of Gregory Mountain above the existing San Diego Gas & Electric transmission line for as long as its practically possible.	Letter from applicant	Annual	County Department of Environmental Health		
MM 4.12-2a	The applicant shall apply water on access roads, storage piles, and cleared areas in greater intervals, such as every three hours, during high wind periods to reduce the dust generated by vehicles.	Field inspection	At the time of field inspections	County Department of Environmental Health		
MM 4.12-2b	The applicant shall install landscaping between the landfill operations and Medicine Rock to create a dust screen. The landscape screen shall include shrubs and trees, such as manzanita and ceanothus.	Field inspection	Prior to operation of landfill	County Department of Environmental Health		
MM 4.12-3	The applicant shall monitor noise levels at the ridgeline during the relocation of the SDG&E transmission towers. If noise levels exceed 62.5 dBA L_{eq} at the ridgeline, the applicant shall implement some or all of the following measures to reduce the noise levels to below 62.5 dBA L_{eq}: • Build temporary noise barriers or berms between construction activities and the ridgeline. Design parameters (e.g., height, length, and location) for these temporary noise barriers or berms shall be determined by a qualified noise expert. • Reduce the amount or size of construction equipment. For example, equipment with smaller engines could be used.	Noise monitoring and written report by applicant's noise expert	During relocation of the transmission towers	County Department of Environmental Health		

TABLE 10-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR PROJECT IMPACTS (CONTINUED)

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	VERIFICATION OF COMPLETION DATE
	If the 62.5 dBA L_{eq} threshold is not exceeded, no action beyond monitoring shall be necessary.					
MM 4.12-4	The project shall mitigate for the loss of ethnobotanical plants in southern willow scrub, mulefat scrub, cotton-willow riparian forest, and native perennial grassland by the creation of in-kind habitats on the landfill site that include ethnobotanical species listed in Appendix O. This revegetated habitat shall be incorporated into the Habitat Enhancement Plan and/or the dedicated open space areas. Before the mitigation plans for these areas are finalized, the Tribe would have the opportunity to provide input concerning the selection of specific ethnobotanical resources. In addition, the Tribe shall be given the opportunity to provide input regarding the location of the in-kind habitats to ensure that tribal members have adequate access to the areas	Letter from applicant's biologist	Prior to construction activities	County Department of Environmental Health		
	4.13 AESTHETICS					
	[No change is made to this section.]					

TABLE 10-2
PROPOSITION C MITIGATION MONITORING AND REPORTING PROGRAM

[No change is made to this section.]

TABLE 10-3
FIRST SAN DIEGO AQUEDUCT RELOCATION OPTION
MITIGATION MONITORING AND REPORTING PROGRAM

[Changes to 4.9-19b and 4.9-19c are shown in underline.]

MITIGATION MEASURE NO.	MITIGATION MEASURE	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY	VERIFICATION OF COMPLETION INITIALS	DATE
MM 4.9-19b:	Impacts to coastal sage scrub shall be mitigated at a minimum ratio of 2:1 through off-site acquisition of 19.0 acres of coastal sage scrub. The off-site acquisition may occur anywhere within the unincorporated area of San Diego County and a conservation easement shall be placed on the mitigation area to permanently protect the resource. Off-site acquisitions may occur either through a direct purchase or through mitigation credits from a habitat manager, mitigation bank, or environmental group. The landfill operator shall prepare and submit for approval a Habitat Resource Management Plan or equivalent with respect to on-site dedicated open space, or created or enhanced habitat areas.	Recordation of conservation easement; submittal of Habitat Resource Management Plan	Prior to commencement of construction	U.S. Fish and Wildlife Service, California Department of Fish and Game, County Department of Environmental Health and Department of Planning and Land Use		
MM 4.9-19c	Coast live oak woodland shall be mitigated at a 3:1 ratio by the off-site acquisition of 2.4 acres of existing coast live oak woodland of like quality. The off-site acquisition shall occur in an unincorporated area of San Diego County. A conservation easement shall be placed across the off-site mitigation area to permanently protect the resource. If possible, individual oak trees shall be salvaged from the impact area and transplanted to appropriate open space habitat on the landfill site. The implementation of this mitigation shall be prior to or concurrent with construction or as otherwise determined in consultation with the County.	Letter from Applicant's biologist	Prior to commencement of construction	County Department of Environmental Health and County Department of Planning and Land Use		

[No other changes have been made to the mitigation measures relative to the First San Diego Aqueduct Relocation Option.]

10.3 POTENTIAL SECONDARY IMPACTS ASSOCIATED WITH IMPLEMENTATION OF THE MITIGATION MEASURES

[No change is made to this section. Secondary effects are analyzed in the respective sections or technical reports.]

10.4 ADDITIONAL ENVIRONMENTAL ANALYSIS—SR 76 IMPROVEMENTS

[No change is made to this section.]

Chapter 11.0
Unavoidable
Significant Adverse Impacts

The following are unavoidable significant adverse impacts which remain after the implementation of the mitigation measures:

TRAFFIC AND CIRCULATION

[All of this section is new.]

The segment of SR 76 west of I-15 currently operates in an unacceptable LOS E condition during the afternoon hours between noon and 5:00 P.M. with and without the project traffic. Although the project does not result in a direct impact to SR 76 west of I-15 based upon the County's significance criteria, the project would incrementally add traffic to the existing unacceptable level of service on this segment of SR 76. The project would be required to pay the County's Transportation Impact Fee to fund its fair share of this traffic condition. However, because of the uncertainty of the implementation of future improvements to SR 76 west of I-15, the project-related traffic impact is considered significant and unavoidable.

In addition, the segment of I-15 between Pomerado Road and Carmel Mountain Road currently operates in an unacceptable LOS F condition, with and without the project traffic. Although the project is not required to mitigate this impact to I-15 based upon the County's significance criteria, the project would incrementally add traffic to the existing unacceptable level of serve on this segment of I-15. The project would be required to pay the county's Transportation Impact Fee to fund its fair share of this traffic condition. However, because of the uncertainty of the implementation of future improvements to I-15, the project-related traffic impact is considered significant and unavoidable.

In the cumulative analysis (near term, 2020 buildout, and Year 2030), the roadway segments in the A.M. and P.M. peak would operate at LOS E or F. Therefore, the project would contribute to cumulatively significant impacts on SR 76 and I-15 and many intersections. Implementation of the mitigation measure to pay the County's Transportation Impact Fee, and to make an irrevocable offer of dedication for right-of-way, including a designated bike lane, and make a fair share contribution could constitute full mitigation. However, because of the uncertainty of the implementation of future improvements, the cumulative traffic impact is considered significant and unmitigable.

NOISE AND VIBRATION

[Changes to this section are underlined]

A cluster of residences along SR 76 between I-15 and Rice Canyon Road is currently located within the 60 CNEL contour. Project-generated traffic would adversely impact these residences since project generated traffic would increase the noise levels in an existing degraded noise

environment. While a sound wall would mitigate the project's increase in noise to a level of insignificance, because implementation of the mitigation measure is not feasible (i.e., the wall would be installed on property not owned by the applicant and the owner has objected, the impact is considered significant and unmitigable.

In addition, project-generated traffic when added to future cumulative traffic, would contribute to significant cumulative noise impacts at the existing cluster of residences between I-15 and Rice Canyon Road, and other residences located within the 60 CNEL noise contours on SR 76. While a sound wall could mitigate the project's contribution to traffic noise to the existing cluster of residences between I-15 and Rice Canyon Road, the installation of a wall is not feasible since the wall would have to be installed on property not owned by the applicant and the owner has objected to the wall. A mitigation measure has been provided that requires that the applicant contribute a fair share contribution for the construction of a sound wall if Caltrans determines that such a wall is feasible to install in the right-of-way for the future widening of SR 76. Given the uncertainty of the implementation of the mitigation measure, the project would contribute to a significant and unavoidable cumulative traffic noise impact along SR 76.

Furthermore, noise levels along Camino del Sur, Camino del Norte, and I-15, which constitutes a portion of the haul route for recycled water trucks between the reservoir site and the landfill site, exceed 60 CNEL at existing residences. Therefore, the project would result in a significant project impact and would contribute to a significant cumulative traffic noise impact to the existing residences.

Therefore, the project would have a significant and unmitigable project level traffic noise impact as well as contributing to a cumulatively significant and unmitigable traffic noise impact to residences along SR 76, I-15, and Camino del Norte/Camino del Sur.

AIR QUALITY

[No change is made to this section.]

ARCHEOLOGICAL AND CULTURAL RESOURCES

[All of this section is new.]

In the event that Gregory Mountain and Medicine Rock were listed on the National Register of Historic Places, the project would have a significant and unavoidable impact on these locations as cultural and historic resources, in addition to the significant and unavoidable impact on these locations as ethno-historical resources. With the implementation of mitigation measures to reduce potential impacts from dust and $PM_{10,}$ and construction noise during the relocation of the SDG&E towers (approximately 10 years after the commencement of the landfill), all technical impacts including air quality, noise, and aesthetics would be at a level of less than significant. However, the Luiseño believe that impacts of the project on their "traditional use sites" would be significant. Their belief of significant impact is based on their intangible use and relationship to Gregory Mountain and Medicine Rock, which makes the use of conventional measurable performance standards to define level of impact significance difficult if not impossible. For this reason, this EIR concludes that from a subjective perspective, the impacts to Gregory Mountain and Medicine Rock would be significant and unavoidable.

ETHNOHISTORY AND NATIVE AMERICAN INTERESTS

[Changes to this section are underlined.]

Project implementation would locate a landfill adjacent to traditional use sites of the Luiseno Tribe. The Luiseno Tribe are reluctant to discuss mitigation measures at this point. Mitigation measures have been identified by the consultant team and the applicant, including measures to increase access for the Pala Band of Mission Indians to Gregory Mountain. With the implementation of mitigation measures to reduce potential impacts from dust and $PM_{10,}$ and construction noise during the relocation of the SDG&E towers (approximately 10 years after the commencement of the landfill), all technical impacts including air quality, noise, and aesthetics would be at a level of less than significant. However, the Luiseño believe that impacts of the project on their "traditional use sites" would be significant. Their belief of significant impact is based on their intangible use and relationship to Gregory Mountain and Medicine Rock, which makes the use of conventional measurable performance standards to define level of impact significance difficult if not impossible. For this reason, this EIR concludes that from a subjective perspective, the impacts to Gregory Mountain and Medicine Rock would be significant and unmitigable.

In the event that Gregory Mountain and Medicine Rock were listed on the National Register of Historic Places, the project would have a significant and unavoidable impact on these locations as cultural and historic resources, in addition to the significant and unmitigable impact on these locations as ethno-historical resources.

AESTHETICS

[No change is made to this section.]

SUMMARY

[No change is made to this section.]

Chapter 12.0
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