

ATTACHMENT B REVISED CEQA FINDINGS

A. Background.

The purpose of this document is to revise prior findings made on June 2, 2004 (2004 CEQA Findings) in accordance with California Environmental Quality Act (CEQA) Guidelines (14 Cal. Code Regs. §§ 15000 *et seq.*) Section 15091 by the County of San Diego, Department of Environmental Health, designated as the Local Enforcement Agency (LEA) regarding the Gregory Canyon Landfill project, and to adopt these revised findings (Revised CEQA Findings). The Revised CEQA Findings incorporate additional information regarding impacts, mitigation measures or economic, social or other considerations disclosed as the result of the preparation of a Revised Final Environmental Impact Report (RFEIR), the 2008 Addendum to the Certified Final Environmental Report (2008 Addendum), the 2009 Addendum to the Certified Final Environmental Report (2009 Addendum), and the 2010 Addendum to the Certified Final Environmental Report (2010 Addendum) (collectively, the “CEQA Documents”) for the project.

The Final Environmental Impact Report (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 entitled Riverwatch, et al. v. County of San Diego Department of Environmental Health, et al.; San Diego County Superior Court Case No. GIN038227 (CEQA Litigation). On October 3, 2005, the Court issued a final minute order finding most of the FEIR adequate and in compliance with CEQA but indicating that revisions to the FEIR were required:

- To evaluate new traffic information contained in a 2003 County tribal traffic study known as the 2003 Traffic Needs Assessment Study;
- To identify the sources of water necessary to construct and operate the landfill and to analyze the impacts of obtaining that water; and
- To assure that biological mitigations for the project were consistent with Section 5R of Proposition C.

On January 20, 2006, the Court issued a writ of mandate ordering decertification of the FEIR and requiring additional environmental review to address the three areas noted by the Court in its October 2, 2005 minute order.

Petitioners appealed the January 20, 2006 decision of the trial court, asserting that the FEIR was deficient in other respects. The Court of Appeal affirmed the order of the trial court on June 12, 2009. Riverwatch, et al. v. County of San Diego Department of Environmental Health, et al., 4th Appellate District, Div. 1, Case No. D048259.

In addition to revising the FEIR to address the matters contained in the Court’s order, the RFEIR included other discussions and analyses. The project description was revised to

reflect the fact the project will include a double composite liner with an additional drainage layer and an additional high-density polyethylene (HDPE) geomembrane and to describe recycled water facilities that will be included in the facilities area. A discussion was added to the land use section discussing the Countywide Siting Element adopted by the California Integrated Waste Management Board in September 2005, and analyzing the project's consistency with this new Siting Element. The traffic section was revised to discuss a new traffic study that was completed in 2006. The noise section was updated based upon new traffic and noise studies completed in 2006. The biological resources section was updated to reevaluate impacts of the project to upland habitat for the arroyo toad, to reanalyze project impacts to vegetation communities, to reevaluate project traffic noise to sensitive habitat, and to revise mitigation measures. The archaeology and cultural resources section and the ethnohistory and Native American interests section were 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 RFEIR was certified by the Director of the LEA on May 31, 2007. The RFEIR consists of the FEIR, a Revised Partial Final Environmental Impact Report (which includes public comments and recommendations on the Revised Partial Draft EIR, and LEA responses to significant environmental points raised in those public comments and recommendations), and supporting technical documentation.

On June 1, 2007, the LEA filed a motion to discharge the writ of mandate, which was granted in part and denied in part in a minute order dated February 11, 2008. The court ruled that the analysis provided in the RFEIR satisfied the requirements of the writ of mandate, with the exception that additional analysis was required with respect to impacts on current users of the identified source of recycled water.

The 2008 Addendum was drafted to respond to the court's minute order, and was adopted by the Director of the LEA on August 8, 2008. On August 14, 2008, a second motion was filed to discharge the writ of mandate, which was granted by the trial court in a minute order dated November 20, 2008.

Petitioners appealed this ruling, and challenged both the February 11, 2008 minute order and the November 20, 2008 minute order. The Court of Appeal affirmed the orders of the trial court on March 30, 2010. Riverwatch, et al. v. County of San Diego Department of Environmental Health, et al., 4th Appellate District, Div. 1, Case No. D054471.

While the above motions and appellate matters were pending, Petitioners filed a separate action, Riverwatch, et al. v. Olivenhain Municipal Water District, San Diego County Superior Court Case No. GIN054668, challenging one of the water sources identified in the RFEIR, a contract for delivery of recycled water from the Olivenhain Municipal Water District (OMWD). The trial court upheld the recycled water contract, but the Court of Appeal issued a decision overturning the trial court on January 9, 2009. Riverwatch, et al. v. Olivenhain Municipal Water District, 4th Appellate District, Div. 1, Case No. D052237. Subsequent to the Court of Appeal decision, OMWD determined that it would no longer proceed with a recycled water contract.

As a result, the 2009 Addendum was prepared to identify alternative sources of water for the project and to evaluate potential environmental impacts from the use of those sources. The Director of the LEA adopted the 2009 Addendum on January 7, 2010.

The identified sources of water for the landfill include on-site riparian water and percolating groundwater, and trucked recycled water from the San Gabriel Valley Water Company (SGVWC).

On January 13, 2010, the U.S. Army Corps of Engineers issued a new jurisdictional determination for the project, finding that the landfill site included more waters of the U.S. than was previously determined in 2004. The 2010 Addendum was prepared to ensure that the project's environmental review was consistent with the 2010 jurisdictional determination, and to analyze whether there were any environmental impacts associated with the updated jurisdictional determination. The LEA adopted the 2010 Addendum on May 7, 2010.

The Court's January 20, 2006 writ of mandate set aside the 2004 CEQA Findings and remanded those findings to the LEA for reconsideration. The LEA has now reconsidered the 2004 CEQA Findings in light of the subsequent events described above, and made revisions where appropriate. The LEA hereby adopts the Revised CEQA Findings. These Revised CEQA Findings incorporate the 2004 CEQA Findings by reference, which are included as Attachment B-1 to the Revised CEQA Findings.

B. Format for the Revised CEQA Findings.

The Revised CEQA Findings indicate the revisions to the June 2, 2004 CEQA Findings as follows: (1) new text is underlined, (2) where a paragraph or portion thereof includes substantive new and deleted text, the entire paragraph or portion thereof is underlined, and (3) where no changes have been made, that will be noted.

Because a large majority of the FEIR was not overturned by the Court or included in its writ of mandate, these Revised CEQA Findings do not address many of the matters included in the 2004 CEQA Findings. A copy of the 2004 CEQA Findings is attached.

A summary table identifying information not previously disclosed or analyzed in the CEQA Documents, including a) changes to the project or b) changes in the circumstances under which the project is to be undertaken, is provided in Section VI of these Revised CEQA Findings, for purposes of the analysis required under CEQA Guidelines § 15162.

The information contained in the CEQA Documents along with material included in the Administrative Records of the CEQA Litigation, provides the basis for these Revised CEQA Findings. The RFEIR, the 2008 Addendum, the 2009 Addendum and the 2010 Addendum, along with material included in the Administrative Record of the CEQA Litigation, are hereby incorporated by reference in their entirety into these Revised CEQA Findings.

I. INTRODUCTION TO CEQA FINDINGS

[Changes to this section are underlined.]

CEQA Guidelines Section 15091 requires that, for each significant environmental effect identified in an EIR for a project, the approving agency must issue a written finding reaching one or more of the three allowable conclusions. The possible findings are:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR; or
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency; or
3. Specific economic, legal, social, technological or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

The purpose of these findings is to systematically restate the significant effects of the project on the environment as identified in the CEQA Documents and based upon the analysis prior to adoption of these findings to determine the feasibility of mitigation measures and project alternatives identified in the CEQA Documents which would avoid or substantially lessen the significant effects.

The CEQA Guidelines recognize that the lead agency may still approve a project which will have significant effects on the environment if significant impacts have been eliminated or substantially lessened where feasible, alternatives capable of reducing one or more of the remaining significant impacts of the project are not feasible and the lead agency determines that any remaining unavoidable significant impacts are acceptable because the benefits of the project outweigh the remaining unavoidable adverse impacts. (CEQA Guidelines § 15092(b)(2); 15093). The Guidelines require the decision-maker to balance the benefits of a proposed project against this unavoidable environmental risk in determining whether to approve the project. If the benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.' (CEQA Guidelines §15093(a)).

These findings summarize substantial evidence in the record that supports each of the findings made by the LEA. Evidence in support of these findings is included in the CEQA Documents and the Administrative Records in the CEQA Litigation. Prior to certifying the FEIR in 2003, the LEA retained outside consultants with expertise in landfills to evaluate the initial screen check EIR. Following review by these consultants, a ninety-page comment letter was provided on the initial screen check EIR. The DEIR was revised to address these comments. Prior to certification of the FEIR, a second independent review of the FEIR, all technical appendices, the comments and responses to comments was completed by County staff with expertise in each of the environmental impact areas. Following completion of this second independent review by County staff with expertise in the individual environmental fields, the LEA determined the FEIR was adequate and complied with CEQA. The environmental impacts of the project were re-evaluated by the LEA in May 2004, in conjunction with the issuance of a Notice of Determination for the project in June 2004. Based on the trial court decisions in 2006 and 2008, and the appellate court decisions in 2009 and 2010, the RFEIR, the 2008 Addendum, the 2009 Addendum and the 2010 Addendum were prepared and environmental impacts of the project were re-evaluated by the LEA in connection with the certification or adoption of each document. Each time, the LEA determined that the

RFEIR, the 2008 Addendum, the 2009 Addendum and the 2010 Addendum were adequate and complied with CEQA.

The 2004 CEQA findings used the phrase “project site” to refer to the 1,770 acre landfill property. However, in light of the proposed use of recycled water from the SGVWC, the geographic scope of the project now comprises both the approximate 1,770 acre landfill property and the SGVWC loading station in South El Monte, California. For these Revised CEQA Findings, where the text has not been changed from that appearing in the 2004 CEQA Findings (not underlined), depending on the context, the phrase “project site” may refer to either the 1,770 acre landfill property or the SGVWC loading station. Where the text of the Revised CEQA Findings has been changed from that appearing in the 2004 CEQA Findings (underlined), for purposes of clarification the phrases “landfill property” or “landfill site” have been used, respectively, to refer generally to the 1,770 acre landfill property as a whole or, more specifically, to refer to the 308 acre area of project activities within the landfill property. The phrase “project site” refers to the landfill site and the SGVWC loading station in the aggregate.

II. FINDINGS FOR SIGNIFICANT IMPACTS AND MITIGATION MEASURES (CEQA Guidelines Section 15091)

A. LAND USE IMPACTS.

1. Finding

[No change is made to this section.]

2. Facts in Support of Finding.

[Changes to this section are underlined.]

The proposed landfill project is consistent with the general plan and zoning designation on the project site. Proposition C designated the entire project site solid waste facility in the County General Plan and Zoning Ordinance. The zoning designation for the project site expressly permits a landfill on the project site “without the need for any permits from the County except a watercourse alteration permit, bridge permit, grading permit, and building permit”. (Proposition “C”, Section 7B). The proposed project is consistent with all elements, policies, and goals of the County’s Adopted General Plan and all relevant sub-regional and community plans as indicated by the detailed general plan analysis contained in Appendix “E” of the FEIR which is incorporated herein by reference.

Existing and planned land uses within a 3-mile radius of the project site were examined to evaluate land use patterns in the area. Existing land uses in the area include a mixture of agricultural, residential, extractive, commercial, industrial, and infrastructure uses. The area is generally rural in character with pockets of intensive extractive, commercial, and infrastructure uses. The area west and south of the site consists of agricultural estate-density residential development, with single-family residences on parcels ranging from 4 to 20 acres. The residential community of Pala is located about 2.5 miles northeast of the project site.

Interspersed with the rural agricultural and residential uses are areas of intense extractive, commercial and infrastructure development. Directly north of the project site,

the area is zoned S-82 for extractive uses. This area is occupied by the H.G. Fenton Materials, Inc. sand and gravel mining operation, which had been operational at that location for over 20 years. In addition, the Calmat Conrock Division, which operates an aggregate mine within the Pala Indian Reservation, is located east of the project site. Noise from the conveyers, processors, and other heavy equipment associated with the H.G. Fenton Materials, Inc. sand and gravel mining operation can be heard on the project site and heavy trucks carrying rock products from both facilities frequently travel along SR 76 between the sand and gravel facility and I-15.

High intensity infrastructure uses in the area include the San Diego Gas & Electric 230 kilovolt and 69 kilovolt transmission lines which transect the project site and neighboring properties in a north-south directional on the eastern wall of Gregory Canyon. These high voltage transmission lines are part of the Escondido-Talega and Pala-Lilac electric transmission network. In addition, the San Diego County Water Authority (SDCWA) and the Metropolitan Water District (MWD) presently operate two 48-inch steel and pre-cast concrete pipelines known as Pipelines 1 and 2, which cross the site and neighboring properties in a north-south direction providing water to San Diego County. The SDCWA and MWD have plans to construct a third large-diameter pipeline, known as Pipeline No. 6 through the project site and surrounding properties. 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.

Planned extractive uses in the area include the Palomar Aggregates – Rosemary Mountain Mining Operation located west of the project site and approximately 1.25 miles east of I-15. The Palomar 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.

In 2006, an additional expansion of the Pala gaming and entertainment facility was proposed and later constructed. The project includes an expansion of the casino gaming area; new lounge, restroom and service space; the rearrangement or expansion of dining, entertainment and retail facilities; reconfiguring of the hotel and spa; addition of parking spaces; and expansion of administrative offices (RFEIR, Appendix A, p. 26, Attachment C3; 2009 Addendum, Appendix J, p. 3).

Other planned commercial and industrial uses in the vicinity of the landfill property are identified in the RFEIR and the 2006 Darnell Traffic Study (RFEIR, Appendix A, p. 26-30; C1 – C20). Those include both residential and commercial projects.

The project with the project design features and the mitigation measures adopted would not adversely impact the character or rural lifestyle that exists in the project area. As noted in Section 4.8 of the FEIR, the project does not create any impacts to agricultural resources in the area. With mitigation measures proposed, project operational noise would meet County noise standards at the property line and the project would not result in any significant noise impacts to residential or agricultural uses surrounding the project site as indicated in Section 4.6 of the FEIR.

The RFEIR determined that impacts from project-related traffic on SR 76 under operating conditions with maximum daily waste receipts (2,085 passenger car equivalent trips per day) would, with mitigation, be less than significant (RFEIR, p. 4.5-9; 4.5-39). Potential traffic impacts from sections of poorer surface and limited site distance on

SR 76 will be mitigated by improvements, including reconstruction of pavement structure and construction of a suitable project access road. A detailed visual analysis discussed in Section 4.13 of the FEIR indicates that with the incorporation of project design features and mitigation measures, such as contouring of the borrow stockpile areas and vegetative screening along SR 76, as well as the use of boulders on-site, the project will not result in any significant visual impacts to residences within the area. Based upon EPA measurements of methane and sulfur compounds from landfills and the distance to the nearest residences, odors from the proposed landfill will be well below the detectable level of the human noise at the nearest residences. With design features and mitigation measures that have been adopted, the project will not create any significant impacts to neighboring residential or agricultural uses in the area. A health risk assessment completed for the project to evaluate cancer risks and acute and chronic health impacts indicates that the project is well below the established significant thresholds for incremental cancer risks and for acute and chronic health impacts.

The nearest residences to the project site are scattered to the south and west. Currently, there are approximately 20 residences to the south and south east of the project site boundary within one half mile of the proposed landfill footprint, with four structures within 500 feet of the project site boundary and stockpile/borrow areas. To the west of the site lies a community of agricultural estate density residential uses with the two closest houses within 1, 000 feet of the project boundary (FEIR 4.1-4). At least 1313 acres of the landfill site will be dedicated as permanent open space. This open space will act as a buffer separating landfilling activities from existing residential and agricultural uses in the area. At its nearest point, the landfill footprint is located approximately 3000 feet from the nearest agricultural contract lands located west and south of the project site. The area around the project site currently meets the federal particulate (dust) standard and operations of the landfill will not cause the ambient levels of particulate matter to exceed this standard. The predominant agricultural uses in the area are avocado and citrus trees. A search of the California Air Resources Board five year reports on air pollution damage to California crops published in 1985, 1990, and 1995 did not list avocados or citrus as a crop damaged by dust. This is consistent with experience in Orange County where avocado and citrus crops have thrived despite dust at levels, which routinely exceed both the state and federal standards for a particulate matter. As noted previously, the nearest residences are located around one-half mile from the project activities providing a substantial natural barrier between the landfilling activities and the nearest residential uses in the area.

The proposed project will not physically divide an established residential community. The project site is not located within any developed area of the Pala community. The nearest residential community is the Pala Townsite, which is located several miles east of the project site. The proposed project will not affect or physically divide any part of the Pala Townsite community.

The proposed project does not conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project. As noted previously, the project is expressly permitted by the County General Plan and Zoning designation for the project site, and a detailed general plan conformance analysis contained in Appendix "E" of the FEIR demonstrates the project is consistent with all goals, policies, and elements of the County General Plan and all applicable County sub-regional and community plans. The County's Resource Protection Ordinance does not apply to the project since the project does not include a tentative map, a tentative parcel map,

revised tentative map, revised tentative parcel map, rezone, major use permit, major use permit modification, or site plan.

The project is consistent with the Regional Growth Management Plan and the County of San Diego Integrated Waste Management Plan. This site was identified as a proposed disposal site in the Countywide Siting Element of the Integrated Waste Management Plan, which was adopted by the County and a majority of the cities and approved by the California Integrated Waste Management Board in September 2005 (RFEIR, p. 4.1-3). In addition, the project is consistent with all of the siting criteria contained in the 1996 Integrated Waste Management Plan Siting Element. This consistency analysis is discussed in detail in Response to Comment No. 2E.121 of the FEIR. However, the trial court and the Court of Appeal held that the siting criteria in the 1996 Siting Element were not applicable to the project.

The project is also consistent with the adopted Habitat Conservation Plans. The Multi-Species Conservation Plan for the North County area has not yet been adopted. However, potential impacts to threatened or endangered species and sensitive vegetative communities will be mitigated to a level of less than significant through the on-site habitat creation and enhancement plan, or acquisition and permanent conservation of off-site properties (RFEIR, p. 4.9-27). The project site does not support a core population of the coastal California gnatcatcher. The project does not preclude connectivity between gnatcatcher populations and would not appreciably reduce the likelihood of the survival and recovery of listed species in the wild because only one gnatcatcher was observed on the site in multiple years of survey. In summary, the project is consistent with the 4(d) Rule and NCCP Process Guidelines.

With the mitigation measures proposed, the project will not result in any significant land use impacts. Existing land uses in a 3-mile radius of the project site include a mixture of agricultural, residential, extractive, commercial, industrial, and infrastructure uses. The area is generally rural in character with pockets of intensive extractive, commercial, and infrastructure uses. Detailed technical analyses of project impacts indicate the project will not adversely affect the rural lifestyle of the agricultural uses and estate home sites located one-half mile or more from the project site. The intensive extractive, commercial, residential, and industrial uses existing and planned in the project area have resulted in changes to this area over time. The project is consistent with the character of other existing and planned residential, agricultural, extractive, commercial, industrial and infrastructure uses in the area. (FEIR pg. 4.1-26).

Recycled water delivery facilities will be constructed at the SGVWC loading station. The loading station property is designated Industrial in the City of South El Monte's General Plan and is zoned Industrial (2009 Addendum, p. 28).

B. GEOLOGY AND SOIL IMPACTS

[No change is made to this section.]

C. HYDROGEOLOGIC IMPACTS

1. Finding

[No change is made to this section.]

2. Facts in Support of Finding

[Changes to this section are underlined.]

A number of detailed hydrogeological investigations of the project site have been completed by firms with expertise in this area. The first hydrogeological investigation was completed by Geotechnical Consultants in 1989. The hydrogeology of the project site was reevaluated by Geraghty & Miller in 1988 and again in 1990. Woodward-Clyde performed a fourth hydrogeologic investigation of the project site in 1995. (These studies are referred to in the FEIR pg. 4.3-1. They were not appended because of later studies.) A fifth hydrogeologic investigation of the site was completed by GeoLogic Associates (GLA) in 1998. This fifth hydrogeologic investigation included the drilling of fifteen boreholes into the crystalline bedrock at the site. Twelve of these bore holes were logged with an optical bore hole-imaging probe. This probe allowed direct physical observation of the fractures and flow rates in the groundwater associated with the project site. Existing wells on the project site and in the project area were also evaluated in conjunction with these hydrogeologic investigations. Water quality testing was performed on some of the wells located on the project site and some neighboring wells. This testing provided helpful data in evaluating the present quality of water in the groundwater basin, which encompasses the project site.

In June of 1997 the San Diego County Water Authority completed a Groundwater Resource Development Report, which evaluated the use of various basins in San Diego County for the generation and production of water. This analysis ranked the Pala groundwater basin in a lower and less attractive group and determined that it should not be considered as a viable new source of water. The primary reasons for the low ranking included very low groundwater elevations that would require extensive pumping facilities, relatively little emergency storage capacity, and the need for extensive infrastructure.

A portion of the project site overlies an alluvial groundwater aquifer. A portion of the site is also underlain by fractured bedrock that derives water from percolation. The groundwater aquifer underlying the project site is the Pala aquifer. The project site is located within the Pala Groundwater Basin. The State Water Resources Control Board (SWRCB) determined that the Pala Groundwater Basin was an underground stream flowing through the alluvial valley in Decision 1645, October 17, 2002 (2009 Addendum, p. 13).

Alluvial Groundwater/Riparian Underflow

The estimated gross groundwater storage for the Pala Groundwater Basin is 50,000 acre-feet based upon studies completed by Moreland in 1974 and NBS Lowery in 1995. As noted previously, a 1997 study of the Pala Groundwater Basin completed by the SDCWA determined the Pala Basin is not suitable for water storage. The San Luis Rey Municipal Water District (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 2,400 acre-feet per year or approximately 7.8 million gallons. (Owens, 1995). In 1974, the USGS (Moreland) calculated an estimated safe yield for the alluvial aquifer in the Pala Groundwater Basin of 2,500 acre-feet per year. The SLRMWD has determined that the Pala Groundwater Basin could accommodate a safe yield of 3,350 acre-feet on a long-term basis with reasonable management

practices including artificially recharging 2,000 acre-feet of water per year and adding strategically located wells to increase production capacity. (Owens 1995). (FEIR Response to Comment 8J.003 in Volume XI at page 85-5). An evaluation of groundwater wells in the area completed as part of the FEIR indicated that the vast majority of active wells in the area are located on or upstream of the project site. Only 4 active wells were documented downstream of the project site. Known wells in the area are shown on Exhibit 4.3-2 of the FEIR.

The 2009 Addendum discussed the legal right to utilize alluvial water for construction, operation and closure of the landfill under the riparian rights doctrine (2009 Addendum, p. 12-14; Appendix G). No application to or permit from the SWRCB is required to exercise riparian water rights. Riparian rights allow the use of water from a surface or underground stream on property crossed by the stream, adjacent to the stream, or crossed or adjacent to a tributary of the stream. Riparian rights are senior in priority to appropriative rights on a stream. The landfill site crosses and is adjacent to the underground stream identified in SWRCB Decision 1645. Thus, water may be pumped from the underground stream (alluvial basin) and used on landfill parcels crossed by or adjacent to the underground stream.

Based on a detailed analysis of the extent of the Pala alluvial basin, and property conveyance documents beginning with the original government patents, the 2009 Addendum determined that a portion of the landfill footprint and Borrow/Stockpile Area B, and all of the main landfill access road, Borrow/Stockpile A road, Borrow/Stockpile A and the habitat creation and restoration area were located within riparian parcels and could utilize this alluvial/riparian underflow. (2009 Addendum, Appendix G, p. 12).

The 2009 Addendum included an updated analysis of water demand. The maximum estimated usage of alluvial groundwater/riparian underflow would be up to 62.88 acre-feet per year (AFY), or 66,742 gallons per day (gpd) (2009 Addendum, Table 3, p. 24). It was concluded that at various times during the course of landfill construction, operation and closure, alluvial groundwater pumped from the riparian underflow could provide between 21% and 99% of the estimated demand. (2009 Addendum, p. 17-18.)

In addition, the 2009 Addendum included an analysis of impacts to the Pala Groundwater Basin from this usage, and determined that the impact to water resources would be less than significant. (2009 Addendum, p. 32.) The primary reason for this is that the FEIR concluded that use of up to 193 AFY or 205,000 gpd would not result in a significant impact on water resources. (FEIR, p. 4.3-38.) Since the 2009 Addendum determined that the project's demand would be up to approximately one-third that amount, the project's current environmental impact would be less than significant. (2009 Addendum, Table 3, p. 24.)

The neighboring groundwater basins in the area are the Pauma and Bonsall Groundwater Basins. The lower reach or closest point of the Pauma Groundwater Basin is located upgradient and about six miles east of the project site. Due to the fact that the Pauma Groundwater Basin is located upgradient of the project site and its distance from the project site (six miles), the project will not impact the Pauma Groundwater Basin in any way. The Pauma Basin has an estimated storage capacity of approximately 70,000 acre-feet and an estimated sustainable yield without groundwater management of approximately 5,500 acre-feet. The Bonsall Basin is located approximately 1.6 miles west of the project site. The Bonsall Basin has an estimated storage capacity of 25,000

– 40,000 acre-feet. Groundwater pumping from the Bonsall Basin is estimated to be approximately 2,500 acre-feet per year with a calculated safe yield of 3350 acre-feet per year. (FEIR pg. 4.3-16 and Response to Comment 8J.003.)

Water quality evaluations of the Bonsall, Pala and Pauma Basins completed by the SDCWA in conjunction with its 1997 groundwater resource development report indicated the Bonsall Basin currently has TDS levels ranging from 600-3400 mg/l exceeding the state and federal drinking water standard for total dissolved solids of 500 mg/l. TDS concentrations in the Pala Basin ranges from 200-860 mg/l.

In August of 1999 five wells on the project site and three residential wells off-site were tested for water quality. Of the eight wells tested, only one well met the federal and state drinking water standard of 500 mg/l for TDS. TDS concentrations recorded were as high as 992 mg/l. Samples collected from a number of the wells also exceeded state drinking water standards for nitrates and sulfates. Testing of wells on the landfill site through 2006 within the fractured bedrock formation has indicated TDS levels in excess of 900 mg/l (RFEIR, Appendix C, p. 15).

The potential for the project to contaminate groundwater in the area was extensively evaluated in conjunction with the geologic and hydrogeologic studies completed as part of the FEIR. These studies documented that groundwater flow on the project site is north. In the unlikely event that a release were to occur from the project, two separate groundwater flow analyses completed for the project indicate it would take approximately five years for contaminants from the landfill to reach the closest down gradient production wells, both of which are located well within the property boundaries (refer to the discussion in Response to Comment 8J.003 at 8J.6 and in the FEIR at pg. 4.3-24). This groundwater flow data also indicated it would take over ten years for groundwater to first reach the San Luis Rey River on the project site and that groundwater in the area does not mix with water in the San Luis Rey River.

One 2004 commenter asserted that a water supply assessment was mandated for the project under Water Code §10915(g). A water supply assessment is not required for the Gregory Canyon project under this Water Code Section. Water Code §10914(d) expressly provides that the water assessment requirement applies only to projects for which a notice of preparation has been submitted on or after January 1, 1996. The notice of preparation for the Gregory Canyon landfill was submitted prior to January 1, 1996 and is not subject to this requirement. However, the FEIR (as updated in the RFEIR and the 2009 Addendum) contained an analysis of the water supply needs of the project and the alternative sources available to supply these needs.

Percolating Groundwater

As a separate and additional source of water, the RFEIR and 2009 Addendum describe and analyze the use of on-site percolating groundwater for use by the project, both within Gregory Canyon and within three other watersheds located on the landfill property.

Percolating groundwater is located in the fractured bedrock formation underlying Gregory Canyon. A detailed hydrogeologic investigation of the landfill site documented the existence of fractured bedrock within Gregory Canyon that would provide appreciable percolating groundwater. Twenty wells drilled in the fractured bedrock within the landfill footprint had estimated yield rates of 5 to 20 gpm. (FEIR, Appendix G, Hydrogeologic

Investigation (Phase 5, 1997) p. 34; FEIR p. 4.3-8.) The RFEIR analyzed this resource and determined that these wells, collectively, have a safe yield of 43.55 AFY, or 38,880 gpd (RFEIR, Appendix C, p. 10).

The environmental review included a project design feature that requires each pumping well within the Gregory Canyon watershed to have a totalizer meter and a controller that would cycle the pump on or off based on reaching an established groundwater elevation, so that overdraft would not occur (2009 Addendum, p. 51). Use of these wells for pumping would not adversely affect their ability to function as groundwater monitoring wells (RFEIR, Appendix E, p. 007-2). No application to or permit from the SWRCB is required to use percolating groundwater (RFEIR, p. 4.15-14). The RFEIR determined that the impacts from the use of percolating groundwater wells within Gregory Canyon were less than significant (RFEIR, p. 4.15-32). This determination was upheld by the trial court and the Court of Appeal.

The 2009 Addendum identified three other watersheds within the landfill property outside of Gregory Canyon having a similar geology. Each of these watersheds is expected to produce percolating groundwater (2009 Addendum, p. 19-20). Using the same methodology that was used to calculate the safe yield of the Gregory Canyon watershed, the 2009 Addendum estimated that wells in these three watersheds have a safe yield of 20,349 gpd (2009 Addendum, p. 20).

The environmental review included a project design feature that requires each pumping well in these other three watersheds to have a totalizer meter and a controller that would cycle the pump on or off based on reaching an established groundwater elevation, so that overdraft would not occur (2009 Addendum, p. 52). The 2009 Addendum determined that the impacts from the use of percolating groundwater wells in these other watersheds were less than significant (2009 Addendum, p. 36).

The proposed project includes a number of design components intended to protect groundwater quality in the area. The waste containment unit would be located five (5) feet above the highest anticipated groundwater level in the area. The project includes a subdrain system, secondary leak detection/drainage layer, leachate collection and removal system (LCRS) and a double composite liner system. The subdrain system will be placed beneath the liner and will consist of gravel filled trenches and pipes in the bottom areas. The subdrain system has been designed to collect two hundred percent (200%) of the maximum expected groundwater flow through the subdrain system. Water collected in the subdrain system will be transported by gravity flow in a separate pipe to a 10,000 gallon storage tank maintained solely for the subdrain system. Groundwater collected by the subdrain system will be tested quarterly for contaminants and treated, if necessary, before being used for daily operations or discharged to the San Luis Rey River under a National Pollution Discharge Elimination System (NPDES) permit. The subdrain system will allow constant testing of groundwater that has seeped into the liner system thereby providing an “early warning” device to ensure that groundwater contamination does not occur. The secondary leak detection/drainage layer provides a second, redundant “early warning” system.

The prescriptive design with the double composite liner system described in Section 6.7.2 of the FEIR and updated in Section 3.8 of the RFEIR is included as part of the project. This alternative will provide greater protection of groundwater resources in the area than the proposed project. Excavation of the landfill will now be limited to five (5)

feet above the highest groundwater in the area. The double composite liner system provides greater protection of groundwater resources in the area since it includes additional layers as part of the liner system that will provide greater assurance there would be no transport of leachate into groundwater (RFEIR, Appendix E, p. 035-2 – 035-4). The double composite liner system exceeds Regional Water Quality Control Board (RWQCB) requirements for a non-hazardous waste landfill such as the proposed project and is typically required only for hazardous waste landfills.

The FEIR concluded that implementation of a single composite liner system would reduce potential water quality impacts to less than significant (FEIR, p. 4.3-38). The double composite liner system would provide greater protection and would likewise reduce potential water quality impacts to less than significant (RFEIR, Appendix E, p. 035-2 – 035-4).

The leachate collection and removal system (LCRS) will consist of a one-foot thick gravel layer with HDPE pipe over the entire bottom and side slopes of the excavation for the landfill footprint. Gravel pipe collectors wrapped with a geotextile fabric will be placed on the interior benches along the slopes. The bottom and slope collectors will be interconnected to convey leachate in the separate pipelines by gravity flow to the mouth of the canyon where the leachate will be stored in up to two enclosed 10,000 gallon storage tanks. These 10,000 gallon storage tanks will serve the LCRS and the secondary leak detection/drainage layer, and are independent of the separate 10,000 gallon storage tank for the groundwater collected in the subdrain system. Maximum daily leachate flow is expected to be 9,245 gallons per day (See FEIR, Appendix T, p. j-8 – J-9) in the sixteenth year of project operations so that two 10,000 gallon leachate storage tanks would provide adequate capacity for several days of the maximum leachate flow. Leachate collected in the 10,000 gallon storage tanks will be trucked offsite for treatment and disposal as needed. The leachate collection system and the subdrain system are two independent self-contained systems that are not connected.

The project also includes monitoring wells at locations designated by the RWQCB on both sides of the landfill footprint and upgradient that will monitor groundwater quality surrounding the landfill. The upgradient wells will monitor background water quality and the other monitoring wells will measure compliance of the proposed project with the water quality objectives established by the RWQCB. The water quality monitoring program will also include monitoring in the San Luis Rey River valley from a well upgradient of the project area and additional well sites designated by the RWQCB. Sampling of these monitoring wells will be conducted on a quarterly basis beginning at least one year prior to the placement of waste at the site to develop a database on the water quality in the area prior to commencement of landfilling activities. Water levels will also be measured in each of the wells monthly during the first year and quarterly thereafter once the highest and lowest expected water levels are established.

As indicated in the RFEIR, the use of bedrock wells for pumping will not affect their ability to function as monitoring wells, as they would “sample” groundwater representing a much broader area surrounding the well, including water that has recently passed through the base of the landfill (RFEIR, Appendix E, p. 007-2).

During the first year, samples will be analyzed for the full suite of “constituents of concern” (“COCs”). The COCs included a broad range of general chemistry and metals, as well as volatile organic compounds, semi-volatile organic compounds, pesticides,

herbicides, and polychlorinated biphenyls. Upon completion of four quarters of this testing, subsequent samples will be collected and analyzed for a reduced suite of constituents as designated by the RWQCB. In addition, individual constituents from the COCs list whose annual concentration and background exceeds one-half of their federal MCL will be added to the routine quarterly monitoring parameter list. Testing of these constituents of concern will occur quarterly after the first year of testing. After landfill construction starts, sampling will also include quarterly collection of liquids from the subdrain system collection tank for testing on the COCs.

The project includes a 50-gallon per minute reverse osmosis (RO) system that will be installed in the southwestern portion of the ancillary facilities area. Although the RO system will be sized to process 50 gallons per minute, the housing will be sized to allow for a larger RO system. Maximum subdrain peak flows are 2,000 gallons per day and the RO capacity is fifty gallons per minute or 72,000 gallons per day, which far exceeds the maximum groundwater collected by the subdrain system. The RO system can be utilized to remove contaminated water with high total dissolved solids. The RO system can be utilized to improve degraded groundwater in the Pala Basin.

Several commentators suggested that the previously considered single liner system for the project would leak contaminating groundwater in the area. These opinions were not supported by the detailed geologic and hydrogeologic studies completed for the project site and were not supported by other research on lined landfills with single liner systems comparable to the original project. The single composite liner, leachate control and recovery system, and landfill gas collection system have proven efficiencies of at least 99% in removal of leachate before it can leak from the landfill. For the climatic conditions at Gregory calculations by geotechnical experts indicated a single composite liner system at the project site would achieve 99.91% leachate collection efficiency. A number of prior studies of existing lined landfills with a single composite liner have demonstrated existing landfills with liner systems do not contaminate groundwater. (Bonaparte, et. al, 1989; Bonaparte & Gross, 1990; Giroud Badu-Twenaboah & Bonaparte, 1992.) In the 1990 study, Bonaparte & Gross presented the results of a field study in which the authors investigated the quantity and origins of flow in the leachate collection systems of 30 existing lined landfills with a single composite liner system. This research confirmed that modern landfills with a single composite liner system result in negligible pollutant discharges to groundwater and the research determined that even the 1989 study by Giroud & Bonaparte, which concluded that “negligible pollutant discharges to groundwater” should result overstated the risk of leaking from lined landfills. The project now includes a double composite liner system that further, and substantially, minimizes the risk of a leak in the liner system.

Moreover, the RFEIR discussed a 2002 study completed for the United States Environmental Protection Agency demonstrating that modern liner systems of the type initially proposed for the project have been highly effective in protecting water quality (RFEIR, Appendix E, p. 035-2 – 035-4).

In the unlikely event of a release from the project, two separate groundwater flow analyses completed for the proposed project indicate it would take approximately five years for contaminants from the landfill to reach the closest downgradient production wells, both of which are located well within the landfill property. (FEIR, Exhibits 4.3.5 and 4.3.6). Monitoring will be provided by both the surrounding monitoring wells and the subdrain system. The subdrain system that will be constructed underneath the landfill

will collect all water that comes within five feet of the refuse and provide a very extensive early warning system to sample the quality of groundwater immediately below the liner system. A second level of monitoring occurs through the series of monitoring wells located at both the upgradient and downgradient portions of the landfill. The final number and location of monitoring wells will be approved by RWQCB.

Groundwater flow data contained in the FEIR demonstrates it would take over ten years for groundwater to first reach the San Luis Rey River on the project site. (See Response to Comment 8J.003.) By that time, natural degradation processes and dilution would result in concentrations of leachate well below health-concern levels, even assuming no remediation action is taken earlier. However, applicable state regulations or permits require monitoring, evaluation and remediation of releases, in the unlikely event they occur. Natural attenuation processes such as adsorption into clay surfaces and biodegradation would decrease the contaminants released to background levels over a distance of a few thousand feet based on a recent study that has been completed. (Wiedemeir, Rifia, Newel, Wilson (1999) "Natural Attenuation Of Fuel Hydrocarbons And Chlorinated Solvents", John Wiley & Sons, New York, New York). Hydrologic investigations of the project site also show that groundwater in the area of the project site does not mix with water in the San Luis Rey River. (refer to Response to Comment 8J.003 at pg. 8J-7 and also J.006 at p. J-4.) In addition, the pumping of percolating groundwater from monitoring wells immediately downgradient of the landfill would intercept groundwater flowing from underneath the landfill, and would prevent or minimize the further transport of contaminants (RFEIR, Appendix E, p. 022-59 – 022-60).

Studies conducted on the chemical composition of landfill leachate have demonstrated that chemical concentrations in leachate typically decrease dramatically over time (Tchobanoglous, et al., 1993; McBean, et al. (1995)). An analysis of leachate quality by Tchobanoglous in 1993 compared the quality of leachate from new landfills (less than two years old) with the quality of leachate from mature landfills (greater than ten years old) and concluded that leachate quality improved substantially over time, with concentrations of individual constituents decreasing by factors of 10-100. (Refer to Response to Comment 8J.003 p. J-4.)

The RFEIR analyzed potential water quality impacts from the use of recycled water for the project. After implementation of project design features, including a requirement to use recycled water only on areas underlain by the liner system and subdrain to the maximum extent possible, any impacts would be less than significant (RFEIR, p. 4.15-32; 4.15-33; 2009 Addendum, p. 51). As part of the RWQCB permitting process, standards for constituents in the recycled water will be established. (RFEIR, p. 4.15-3; Appendix E, p. 007-10 – 007-12.) The RFEIR included an analysis of potential water quality standards that might be included in the RWQCB permit, and determined that those water quality standards could be achieved. (RFEIR, Appendix E, p. 007-10 – 007-12)

The excavation for the landfill will not affect the direction of groundwater flow which will continue to be toward the mouth of the canyon to the north. Groundwater recharge will decrease slightly once the landfill is constructed because the liner system will effectively eliminate infiltration over the footprint area. Based upon a maximum infiltration rate of 1.6 inches per year, the project will cause an average decrease in groundwater recharge of approximately 15 gallons per minute. This rate would be equivalent to a small fraction

of the output from a single average agricultural well. Therefore, this impact is not significant.

The project includes a subdrain system designed to collect and control groundwater that intersects the subdrain surface. This subdrain system has been designed to accommodate 200% of the anticipated flow volume for groundwater into the landfill. The subdrain system has been designed to permit frequent water quality testing of groundwater in the subdrain system.

With the design features included as part of the project and the mitigation measures adopted, the project will not result in any significant impacts to groundwater resources in the area.

D. SURFACE HYDROLOGY IMPACTS

1. Finding

[No change is made to this section.]

2. Facts in Support of Finding

[No change is made to this section.]

E. TRAFFIC IMPACTS

1. Findings

[Changes to this section are underlined.]

Pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in, or incorporated into, the project that will mitigate potentially significant project-related traffic impacts on SR 76 east of I-15 and all intersections and ramps of I-15 north and south of SR 76 to a level of less than significant. However, the segment of SR 76 west of I-15 operates at an unacceptable Level of Service (LOS) E, 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, and this impact is treated as significant.

In addition, the segment of I-15 between Pomerado Road and Carmel Mountain Road operates at an unacceptable LOS F, 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 may incrementally add traffic to the existing unacceptable level of service, and this impact is also treated as significant.

The RFEIR finding of a project-related significant impact to the segment of I-15 between Pomerado Road and Carmel Mountain Road may no longer be applicable since the project will not be trucking recycled water from OWMD to the landfill site. The recycled water truck trips analyzed in the 2006 traffic study will not be occurring since the recycled water contract between the applicant and OMWD has been invalidated and will not be pursued further.

The project will be required to pay the County's Transportation Impact Fee (TIF) to fund its fair share of improvements to address these traffic conditions. The LEA finds that all feasible mitigation measures to reduce these traffic impacts have been adopted and that any remaining traffic impacts are outweighed by the benefits of the project in accordance with CEQA Guidelines §15092(b)(2) and §15093(a). This finding is discussed in more detail in the statement of overriding considerations.

Cumulative traffic impacts to all segments of SR 76 from west of Highway 395 to east of the landfill site, the SR 76/Highway 395 intersection, the SR 76/I-15 intersections, or I-15, will be significant and unavoidable in one or more of the near term, the 2020 buildout condition, or the year 2030, with or without the project unless necessary improvements are completed.

The project will incrementally contribute to these cumulative impacts. The project will be required to pay the County's Transportation Impact Fee (TIF) to fund its fair share of improvements to address the cumulative traffic condition. The LEA finds that all feasible mitigation measures to reduce these cumulative traffic impacts have been adopted and that any remaining cumulative traffic impacts are outweighed by the benefits of the project in accordance with CEQA Guidelines §15092(b)(2) and §15093(a). This is discussed in more detail in the statement of overriding considerations.

The RFEIR finding of a cumulative significant traffic impact to the segment of I-15 between Pomerado Road and Carmel Mountain Road may no longer be applicable since the project will not be trucking recycled water from OWMD to the landfill site.

2. Facts in Support of Findings

[Changes to this section are underlined.]

The County of San Diego has established a goal of maintaining a Level of Service (LOS) of D or better on all roadways and intersections during peak hours. A detailed traffic study to evaluate traffic impacts of the proposed project was initially completed by Darnell & Associates, Inc. in January 1995. Traffic studies for cumulative projects were obtained and updated as additional information became available. Traffic data was updated for each revision of the draft EIR. 24-hour count data was collected in both 1997 and again in September of 1999. The 1999 data for street segments was significantly lower than the 1997 traffic counts. To present a worse-case analysis, the higher 1997 street segment data was used to reflect background traffic conditions. A field review was conducted by the California Department of Transportation (Caltrans) staff in April 1996 to identify pavement conditions for the Gregory Canyon Landfill Project. Based upon this data, Darnell & Associates prepared a revised traffic analysis for the project in November of 1999. This updated traffic analysis is included as Appendix I of the FEIR. A supplemental traffic report was completed by Darnell & Associates on January 23, 2001 to re-evaluate project and cumulative traffic based on the higher 6400 average daily traffic (ADT) contained in the environmental assessment for the Pala Casino. This traffic report noted that two new traffic signals had been installed at the northbound and southbound ramps to Interstate 15 and State Route 76. With these signals in place, all intersections operated at LOS D or better with existing traffic plus project traffic. Accordingly, it was no longer necessary to require installation of these signals by the project. The supplemental traffic analysis also indicated that

increasing traffic from the Pala Casino to 6400 daily trips in accordance with the revised traffic numbers provided in the Pala EA did not alter any of the traffic cumulative impacts previously considered in the prior drafts of the EIR circulated for public review and comment. This supplemental traffic study did not document any new significant traffic impacts, mitigation measures or alternatives, not previously evaluated in prior drafts of the EIR circulated for public review and comment.

A supplemental traffic analysis was completed on June 10, 2002 evaluating project traffic utilizing 24-ton transfer trucks instead of 8-ton direct hauling trucks and providing a more detailed analysis of accident data on State Route 76. This supplemental traffic analysis indicated that traffic generation for the project based upon 8-ton haul trucks resulted in greater project traffic than the assumed use of 24-ton transfer trucks (FEIR, Appendix I. A detailed analysis of accident data on State Route 76 indicated traffic accidents on SR 76 are not the result of high truck traffic or reduced curve radii. The accident data indicated that traffic accidents on SR 76 declined although the traffic volume increased over 150% from 1996 to 2001. The accident data also indicated that nearly 90% of all accidents are caused by alcohol, speeding, and other traffic violations and not by high truck traffic or reduced curve radii. The traffic studies are contained in Appendix I of the FEIR.

Following the Court's order, another traffic study was completed by Darnell & Associates in June 2006 and is included in the RFEIR (RFEIR, Appendix A). Although project-related traffic has not changed since 2002, this updated study was conducted to consider overall increases in traffic on SR 76 since 2002 (RFEIR, Appendix A, p. 3). The 2006 traffic study also included a review of more recent Caltrans accident data to determine whether increased traffic had resulted in an increase in the accident rate per million vehicle miles on SR 76 (RFEIR, Appendix A, p. 17).

The 2009 Addendum included a 2009 traffic study completed by LLG Engineers analyzing the impact of recycled water truck trips from the SGVWC loading station to the landfill site (2009 Addendum, Appendix M).

The traffic analysis completed for the project assumed the project would receive 5,000 tons per day of solid waste from its inception and throughout its entire operational life. Since the project will operate approximately 307 days per year, this results in 1,535,000 tons of processed solid waste per year. However, the solid waste permit for the project will restrict the amount of solid waste that may be received to 1,000,000 tons per year or approximately 60% of the annual amount of solid waste assumed in the traffic analysis. This assumption has the effect of substantially overstating traffic impacts associated with the project.

Based upon the assumption the project could receive 5,000 tons of solid waste per day on an annual basis, the project could result in 2,085 daily trips. Given the 1,000,000 ton per year limitation that will imposed by the solid waste permit, it is expected that the project will actually generate 1,410 daily trips and not the 2,085 daily trips utilized in the traffic analysis. Thus, the traffic analysis overstates the expected daily project trips by approximately 675 trips per day (2,085 daily trips – 1,410 daily trips = 675 daily trips).

Proposition 111 as adopted in 1990 requires the preparation, implementation and annual updating of a Congestion Management Program ("CMP") in each of California's urbanized counties. One required element of the CMP is a process to evaluate the

transportation and traffic impacts of large projects on the regional transportation system. Since SR 76 passes through the project site, primary traffic impacts associated with the project are upon SR 76 and the I-15 interchanges. SR 76 and its intersections from Mission Avenue to SR 79 have been adopted in the Congestion Management Program as a Regional Arterial System (“RAS”). The adopted Regional Growth Management Strategy objective for RAS roadways is LOS D. Therefore, a significant impact would occur if the project would reduce the level of service of an intersection or roadway segment to below LOS D during either the morning or afternoon peak hours.

Well established traffic methodologies utilized by Caltrans were utilized in evaluating these various traffic conditions. Periodic construction and operational traffic from the project were combined to determine the total daily trips generated by the project. Truck trips were converted to a PCE utilizing the Highway Capacity Manual (“HCM”) which is a regionally accepted manual for determining the proper methodology to convert truck traffic into passenger car equivalents. To assess the relative passenger car equivalent of a slow moving truck on an uphill grade, the HCM provides a matrix for rural highways that utilizes both specific grade percentages and average speeds to determine the correct conversion factor.

The initial traffic studies utilized a PCE factor of 1.5. Prior to certification of the FEIR, a commentator suggested that a much higher PCE factor should have been used. To ensure that the PCE factor utilized for the project was conservative, the County required the traffic expert, Darnell & Associates to perform both a vertical grade analysis of SR 76 and a speed survey to document the actual grade and speed of traffic on SR 76. The vertical grade analysis demonstrated that SR 76 does not exhibit grades greater than 2% percent and is therefore a “level” roadway for purposes of the PCE conversion factor. A speed survey was completed by Darnell in July 1999 to establish the current average speed through the segment of SR 76 between I-15 and the project site. Four locations were surveyed based upon the selection of survey locations that considered both the fastest and slowest portions of SR 76. The speed survey demonstrated that average speeds on SR 76 are 37.85 mph. Based upon these measured criteria, the Highway Capacity Manual (“HCM”) documented that a PCE conversion factor of 1.3 was appropriate for the project. Nonetheless, for purposes of the traffic analysis a PCE factor of 1.5 was used. This factor was more conservative than the 1.3 PCE permitted by the HCM. Caltrans concurred that the traffic speed and grade analysis for SR 76 supported the conversion factor used. The 2006 traffic study included a discussion of the rationale for the continued use of the PCE factor of 1.5 (RFEIR, Appendix A, p. 8-9).

The 2006 traffic study evaluated existing traffic conditions and existing traffic conditions plus the proposed project and also evaluated cumulative traffic impact scenarios (RFEIR, Appendix A, p. 8-21). The evaluation of existing traffic conditions and estimates of existing plus project traffic conditions were based on traffic counts made in 2005. Except for the segment of SR 76 west of Highway 395, the 2006 traffic study demonstrated that all intersections, freeway ramps, and street segments in the vicinity of SR 76 between I-15 and the landfill property are presently operating at LOS D or better based upon existing conditions (RFEIR, p. 4.5-4 – 4.5-7). With the addition of project traffic, and with restrictions on hourly traffic related to the project between 2:00 pm through 5:00 pm (see MM 4.5-3), all intersections, freeway ramps, and roadway segments in this area, except for the segment of SR 76 west of Highway 395, will operate at a level of service of LOS D or better (RFEIR, p. 4.5-16). With incorporation of the hourly traffic restrictions described in MM 4.5-3, project-related traffic impacts in this

area are less than significant except for the segment of SR 76 west of Highway 395, where a significant impact would occur with and without the project (RFEIR, p. 4.5-16; 4.5-39).

The segment of I-15 between Pomerado Road and Carmel Mountain Road is not presently operating at LOS D or better based on existing conditions (RFEIR, p. 4.5-34). The amount of additional traffic that might be contributed by the project is below the minimum thresholds of significance for both the City of San Diego and the County of San Diego (RFEIR, p. 4.5-9; 4.5-34).

Factual determinations in the RFEIR related to the segment of I-15 between Pomerado Road and Carmel Mountain Road may no longer be applicable since the project will not be trucking recycled water from OWMD to the landfill site. The recycled water truck trips analyzed in the 2006 traffic study will not be occurring since the recycled water contract between the applicant and OMWD has been invalidated and will not be pursued further (2009 Addendum, p. 1-2).

The 2009 traffic study determined that the volume of truck traffic required for recycled water trips from SGVWC to the landfill site did not trigger the need for a full traffic study based on local and regional guidelines (2009 Addendum, Appendix M, p. 4-5). However, the 2009 traffic study did include a directional freeway analysis and an analysis of signalized intersections at the northbound and southbound ramps at the SR 76/I-15 interchange (2009 Addendum, Appendix M, p. 18-21). Based on this analysis, traffic impacts associated with these recycled water truck trips would be less than significant (2009 Addendum, Appendix M, p. 22).

Mitigations for project-related impacts include setting a maximum daily limit for trips into the landfill. This limitation applies to all trips in the aggregate, including waste vehicles, water trucks, construction vehicles or employee vehicles. (See MM 4.5-2) In addition, further restrictions on project vehicle trips are imposed between the hours of 2:00 P.M. through 5:00 P.M. (See MM 4.5-3.) With these mitigations, project-related traffic impacts will be less than significant except for SR 76 west of Highway 395, and I-15 between Pomerado Road and Carmel Mountain Road (RFEIR, p. 4.5-39) (to the extent applicable). The project will pay the County's TIF (See MM 4.5-4), but the impact on these segments remains significant and unavoidable (RFEIR, p. 4.5-39).

The 2006 traffic study evaluated cumulative traffic impacts to all intersections, freeway ramps, and street segments in the vicinity of SR 76 between I-15 and the landfill site for both the near term and the year 2030 (RFEIR, Appendix A, p. 31-56). Planned residential, commercial and industrial uses in the vicinity of the landfill property were identified in the RFEIR and the 2006 Darnell Traffic Study (RFEIR, Appendix A, p. 26-30; C1 – C20). The near term analysis was based upon development that is approved or projected to occur in this area. The year 2030 analysis was based on the County of San Diego's 2020 General Plan (which forecasts 2030 traffic), using the Board Alternative Map – Existing Plus CIP Network and evaluated for consistency with the San Diego Association of Governments (SANDAG) series 10 model. The year 2030 analysis assumed that no improvements were made to SR 76 and that the road remained as a two lane highway.

The near term cumulative traffic analysis indicated that with existing plus other development plus project traffic, the intersection of I-15 and SR 76 northbound and all

segments of SR 76 from west of Highway 395 to east of the landfill site will operate at unacceptable levels of service below LOS D (RFEIR, p. 4.5-21). The degraded levels of service in the near term at these locations will occur with and without the project (RFEIR, p. 4.5-21). The year 2030 cumulative traffic analysis indicated that several SR 76 and I-15 intersections, I-15 north and south of SR 76 and all segments of SR 76 from west of Highway 395 to east of the landfill site would operate at unacceptable levels of service below LOS D (RFEIR, p. 4.5-26). The degraded levels of service in year 2030 at these locations will occur with and without the project (RFEIR, p. 4.5-26). The segment of I-15 between Pomerado Road and Carmel Mountain Road will operate at an unacceptable LOS F in the 2020 buildout condition (RFEIR, p. 4.5-35; Table 4.5-16).

Factual determinations in the RFEIR related to the segment of I-15 between Pomerado Road and Carmel Mountain Road may no longer be applicable since the project will not be trucking recycled water from OWMD to the landfill site.

The 2009 traffic study evaluated cumulative impacts from recycled water truck trips between the SGVWC loading station and the I-15/SR 76 intersection, based on an assumed 2% increase in traffic for five years (2009 Addendum, Appendix M, p. 18-21). Based on this analysis, the recycled water truck trips would not contribute to significant cumulative traffic impacts (2009 Addendum, Appendix M, p. 18-21).

Cumulative traffic impacts in the near term, 2020 buildout condition and the year 2030 on I-15, SR 76 or certain intersections will be significant and unavoidable (RFEIR, p. 4.5-39). To mitigate these impacts, the project will pay the County's TIF (See MM 4.5-6a).

Although the project's contribution to these cumulative traffic impacts could be considered less than significant in accordance with CEQA Guidelines §15130(a)(3) since the project will make a fair share contribution to alleviate the cumulative traffic impacts, because the date of implementation of these improvements is unknown, the FEIR and RFEIR have concluded that the cumulative traffic impact is significant and unavoidable (RFEIR, p. 4.5-39). No further mitigation measures are available to mitigate this cumulatively significant traffic impact since it is triggered by other development in the area whether or not the project occurs. The LEA has determined that the benefits of the project outweigh this and other significant and unmitigable impacts of the project and has adopted overriding findings in accordance with CEQA Guidelines §15093. These overriding findings are included in a separate statement of overriding findings.

Certain design features have been included as part of the project that will improve existing traffic conditions on SR 76. SR 76 will be realigned and improved at the access road to provide adequate width for an eastbound deceleration lane, a westbound turn lane, and to improve sight distance per Caltrans requirements (See MM 4.5 C51). The road improvements, which extend a distance of approximately 1700 linear feet, will realign SR 76 to the south of the existing alignment and will widen the roadway from 52 to 64 feet. The RFEIR has included as a project design feature the installation of a traffic signal at the intersection of SR 76 and the landfill access road, subject to approval by Caltrans (RFEIR, p. 4.5-36).

Caltrans staff conducted a field review of SR 76 in April of 1996 to identify pavement conditions for the project. SR 76 was identified as exhibiting some distress in the pavement which has resulted in "alligator" cracking, wheel track rutting and some raveling. Caltrans completed a .20 inch asphalt concrete overlay in the area of "PM

17.3/32.8", between the I-15 interchange and Pankey Road in July 1997. Since project traffic could potentially worsen existing sections of poor surface along SR 76 from Interstate 15 to the project access road, the mitigation measures require the project to conduct a structural analysis of SR 76 and to 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 from the project. Construction of the recommended pavement improvements, consistent with Caltrans requirements, will be implemented prior to operation of the landfill, if determined necessary, and a fair share contribution to these surface improvements shall be made by the project. If the Palomar Aggregates project does not proceed, the analysis will occur from I-15 to the project access road. (MM 4.5-1.)

The traffic analyses included a detailed evaluation of accidents on SR 76 to determine if project traffic would cause these accidents to increase. The supplemental traffic analysis completed by Darnell in June 2002 included as part of Appendix I evaluated this traffic accident data in depth. As traffic accident data indicated there had been 23 fewer accidents on SR 76 during the last three years although traffic volumes on SR 76 have increased over 156% during this same time period. Heavy truck traffic has been involved in less than 16% of the accidents that have occurred on SR 76. The accident data indicates that nearly 90% of all accidents on SR 76 have been caused by alcohol, speeding, or other traffic violations. There is no evidence based on traffic accident records that the design of SR 76 or the existence of trucks have contributed to traffic accidents on SR 76.

The 2006 traffic report updated this analysis for the years 2003-2005 based on summary accident data provided by Caltrans. Despite the substantial increase in traffic, the accident rate per million vehicle miles has declined when compared to the 1991-1998 period. The data continue to show that the primary collision factors continue to be alcohol, driver violations and excessive speed. Consistent with prior analyses, there continues to be no relation between the accident rate and increased truck trips. (See RFEIR, Appendix A, p. 17.)

With design features included as part of the project and adopted mitigation measures, project-related traffic impacts have been reduced to a level of less than significant, except for SR 76 west of Highway 395, and I-15 between Pomerado Road and Carmel Mountain Road. However, factual determinations in the RFEIR related to the segment of I-15 between Pomerado Road and Carmel Mountain Road may no longer be applicable since the project will not be trucking recycled water from OWMD to the landfill site.

Following implementation of design features and mitigation measure, cumulative traffic impacts in the near term, the 2020 buildout condition, and year 2030 will be significant and unavoidable for all segments of SR 76 from west of Highway 395 to east of the landfill site, the intersections of SR 76 with Highway 395 and I-15, or I-15, with or without the project. However, factual determinations in the RFEIR related to the segment of I-15 between Pomerado Road and Carmel Mountain Road may no longer be applicable since the project will not be trucking recycled water from OWMD to the landfill site.

Although the project will pay the TIF and make other contributions to alleviate these impacts, because the date of implementation of these improvements is unknown, these impacts are considered significant and unavoidable. (See RFEIR, p. 4.5-39.) The LEA

has determined that the benefits of the project outweigh this and other significant and unavoidable impacts of the project and has adopted overriding findings in accordance with CEQA Guidelines §15093. These overriding findings are included in a separate statement of overriding considerations.

F. NOISE AND VIBRATION IMPACTS

1. Findings

[Changes to this section are underlined.]

Pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in, or incorporated into the project which will mitigate potentially significant noise and vibration impacts caused by the project, with the exception of noise from project-generated and cumulative traffic, to a level of insignificance. Existing noise levels at residences located along SR 76 currently exceed the County's standard of 60 dBA CNEL without the project. Project-generated traffic would increase noise levels to these residences by 0.0 to 0.6 dBA. While sound walls could reduce the project's contribution to these noise levels on SR 76 to a level of insignificance, the sound wall would have to be constructed on private property and the property owner has objected to installation of a sound wall. Therefore, because the site is within a corridor that has noise levels that exceed the County standard and because the project would contribute to a degraded noise environment and mitigation measures are not assured, the project would result in a significant and unavoidable noise impact from traffic.

Cumulative traffic noise impacts in both the near-term and year 2030, with or without the project, would cause noise levels to exceed the County standard of 60 dBA CNEL at the same residences. While a sound wall installed in the future right-of-way for the widening of SR 76 could reduce the project's cumulative contribution at residences located on SR 76 to a level of insignificance, Caltrans has not yet indicated it will allow this sound wall to be installed. However, a mitigation measure has been provided that requires the applicant to make 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, 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 unavoidable noise impact from both project-related traffic and cumulative traffic to all residences located within the 60 dBA CNEL noise contours along SR 76.

Noise levels along Camino del Sur, Camino del Norte, and I-15, which constitute a portion of the haul route for recycled water from OMWD to the landfill site, exceed 60 dBA CNEL at existing residences. While the incremental noise increase from additional truck trips would fall well below the significance threshold, since existing levels exceed 60 dBA CNEL there could be both a project-related and cumulative noise impact to these residences.

The RFEIR finding of a project-related and cumulatively significant noise impact to Camino del Sur, Camino del Norte, and I-15, which constitute a portion of the haul route

for recycled water from OMWD to the landfill site, may no longer be applicable since the project will not be trucking recycled water from OWMD to the landfill site.

The LEA finds and determines that all feasible mitigation measures to reduce these significant and unmitigable noise impacts have been adopted and that the significant impacts of the project are outweighed by the benefits of the project in accordance with CEQA Guidelines §15092(b) and §15093. This is discussed in more detail in the separate statement of overriding findings.

2. Facts in Support of Findings

[Changes to this section are underlined.]

Noise testing and a noise assessment for the proposed project were initially completed in January 1999 by noise experts, Mestre Greve Associates. A supplemental noise analysis and noise assessment was completed by noise experts at PCR Services Corporation in December 1999. An updated noise analysis was prepared in 2006 by PCR Services using data obtained from the 2006 Darnell & Associates traffic study (RFEIR, Appendix D). A second updated noise analysis was prepared in 2009 by PCR Services related to the construction of the SGVWC loading facility and traffic between that facility and the landfill site, in the latter instance using data obtained from the 2009 LLG Engineers traffic study (2009 Addendum, Appendix L). Ambient noise measurements were conducted in November 2000 by noise experts at PCR Services. A vibration technical report evaluating vibration impacts of the proposed project was initially completed by vibration experts at Ogden Environmental & Energy Services in March of 1998. A supplemental ground vibration study was completed by experts at Investigative Science and Engineering on December 4, 1998. A supplemental vibration analysis of the rock crusher was also provided in response to comments. These noise and vibration reports are contained in Appendix J of the FEIR.

A discussion of the methodologies and criteria used to measure noise impacts is included in Section 4.6 of the FEIR and RFEIR (FEIR, p. 4.6-1 4.6-2). The two methodologies used in the FEIR and RFEIR, which were used when appropriate to a particular analysis, were “equivalent noise level” (L_{eq}) and “Community Noise Equivalent Level” (CNEL).

Acceptable noise levels in the County of San Diego are set by the Noise Element of the San Diego County General Plan and by the San Diego County Noise Ordinance. However, Proposition C passed in November of 1994 set its own permissible noise levels for the proposed project. Section 5 of Proposition C expressly permits project noise levels that do not exceed 65 dBA CNEL at the boundaries of the Gregory Canyon site. The noise analyses demonstrated project noise will be well below the 65 dBA CNEL set by Proposition C. Although the noise levels established by Proposition C are effective, for purposes of the FEIR the County required the project to be evaluated in conjunction with the more stringent noise standards contained in the County General Plan and the County Noise Ordinance.

There are three types of potential noise caused by the proposed project. These are construction noise, operational noise, and noise from traffic. Each of these noise sources were added to existing ambient noise levels to evaluate project noise impacts.

Beyond the 65 dBA CNEL standard set by Proposition C, construction noise is regulated by Section 36.410 of the County Noise Ordinance that limits construction equipment noise to 75 dBA maximum at the property line adjacent to a residential use (RFEIR, p. 4.6-2). Operational noise from the project is governed by Section 36.404 of the San Diego County Noise Ordinance. This Noise Ordinance provides that the noise limit on the boundary between two zoning districts shall be the arithmetic mean of the respective noise limits. Based upon the County Noise Ordinance, the project site would have a daytime standard of 75 dBA L_{eq} . The daytime standard for residential uses is 50 dBA L_{eq} . In accordance with the Noise Ordinance, these two standards were averaged to arrive at an arithmetic mean of 62.5 dBA L_{eq} as the noise standard for operational noise pertaining to the project. This 62.5 dBA L_{eq} is the noise limit that the proposed project must not exceed for operational purposes in the outdoor living areas of residential uses that border the project site. Only rear yards or backyards are considered outdoor living areas for purposes of evaluating these noise impacts. Noise impacts from traffic associated with the project are governed by the Noise Element of the San Diego County General Plan. This sets a noise standard of 60 dBA CNEL as the traffic noise standard for sensitive areas such as residential areas. A noise standard of 60 dBA L_{eq} has been set by both the U.S. Fish & Wildlife Service and SANDAG as the appropriate noise standard for impacts to sensitive wildlife. These standards were utilized in evaluating the noise impacts of the project to sensitive habitat and species.

The 2009 Addendum also discussed standards for evaluating noise impacts from construction of wells, pipelines and a new storage tank at the landfill site, construction of the SGVWC loading facility, and on surface streets and freeway segments not previously analyzed. The standards used to evaluate impacts related to construction were the same as those used for the FEIR and RFEIR (2009 Addendum, Appendix L, p. 12-13). The standards utilized to evaluate construction noise and surface streets in South El Monte were those established by the City of South El Monte (2009 Addendum, Appendix L, p. 14-15). The standards utilized to evaluate noise impacts on freeway segments were those developed by the Federal Transit Administration (2009 Addendum, Appendix L, p. 18).

As a result of comments received prior to certification of the FEIR, noise measurements were completed at the two closest wildlife locations on the project site and at five locations on the project boundaries to establish ambient noise levels in the project area. These noise measurements demonstrated that existing ambient noise levels range from a low of 38.5 dBA L_{eq} at the southern boundary of the project site to 53.9 dBA L_{eq} at one of the two closest wildlife locations located on the western boundary of the project site. Noise modeling also indicated there are a small group of homes located along SR 76 between I-15 and the proposed project access road currently experiencing noise levels exceeding the County standard of 60 dBA CNEL. These homes were determined to be exposed to noise levels that exceed the County's Noise Element limit (60 dBA CNEL) without the project. (Exhibit 4.6-2 of the FEIR.)

Based on the updated analysis performed in the 2006 noise study, residences along SR 76 from west of I-15 to the east of the landfill site currently are exposed to noise levels that exceed the 60 dBA CNEL standard. (Exhibit 4.6-2 of the RFEIR.) Consequently, the project would result in both a project-related and cumulative significant and unavoidable noise impact to these residences.

Based on the 2006 noise study, residences along Camino del Sur, Camino del Norte and I-15 along the haul route for recycled water from OMWD to the landfill site currently exceed the 60 dBA CNEL standard (RFEIR, Appendix D, p. 22-23). This would result in both a project-related and cumulative significant and unavoidable impact. However, the RFEIR finding of a project-related and cumulatively significant noise impact to Camino del Sur, Camino del Norte, and I-15, which constitute a portion of the haul route for recycled water from OMWD to the landfill site, may no longer be applicable. The recycled water truck trips analyzed in the 2006 traffic study will not be occurring since the recycled water contract between the applicant and OMWD has been invalidated and will not be pursued further (2009 Addendum, p. 1-2).

Based on the updated 2009 noise study, the 2009 Addendum determined that trucked recycled water from SGVWC would not result in any significant project-related or cumulative noise impacts from recycled water truck trips not already disclosed (2009 Addendum, p. 48-49).

Initial construction noise impacts from the project include construction of the access road and bridge, construction and modifications to SR 76 at the access road entrance, construction of the ancillary facilities, the initial excavation for the first phase of the landfill footprint, and the first stage of the waste containment system. Initial construction of the landfill is expected to take about 9 - 12 months. Periodic construction includes the subsequent periods to construct each subsequent phase of the landfill footprint. Each of these subsequent periods is estimated to take 6 - 8 months depending on the rate of refuse inflow and will occur approximately every 1 - 5 years as new cells for the landfill are constructed. The initial construction activities will be completed before the project commences long-term construction and operation.

The closest residential properties to the initial construction activities for the project are approximately 3200 feet from the nearest construction equipment. The noise analyses demonstrated that noise levels during this initial construction would be less than 62.5 dBA L_{eq} at the property line adjacent to the nearest residential uses. This is well below the 75 dBA maximum construction noise level permitted by the County Noise Ordinance. However, borrow/stockpile area A which will be utilized during initial construction activities is located approximately 100 feet from the nearest residential property line. The noise analysis indicated that during initial construction heavy earth moving equipment could generate noise levels of 74 dBA L_{eq} at a distance of 100 feet. However, a mitigation measure has been included requiring the project to construct a 15-20 foot high berm along the western edge of Borrow/Stockpile Area A. The noise analysis indicated that with this berm noise levels produced at Borrow/Stockpile Area A during the initial construction would be reduced to below 62.5 dBA L_{eq} along the western property line nearest to the closest residence. This is well below the 75 dBA maximum construction noise level permitted by the County Noise Ordinance.

Construction noise would also be experienced during the periodic construction involving the excavation and blasting for each new cell of the landfill. Currently, there are approximately 20 residences to the south and 10 residences to the west of the project site located within about 3000 feet of the portion of the site where the periodic landfilling construction activities will occur. The nearest residential property lines range between 520 to 3930 feet from the landfill footprint and 360 to 4100 feet from the Borrow/Stockpile areas. The closest home is 600 feet from any area where construction equipment would be working along the southern boundary. Assuming the maximum

amount of construction equipment possible for the project was being utilized entirely at the southern most edge of the landfill, the noise analysis indicated one-hour L_{eq} noise levels ranging from 57 to 76 dBA at the project boundaries. The noise analysis indicated a range of noise that is likely to fall below the county standard of 75 dBA L_{eq} for construction noise. Although it is unlikely that all of the construction equipment will be utilized at the southern most edge of the landfill at the same time, mitigation measures have been adopted to ensure that long-term construction activities for the project do not exceed the 62.5 dBA L_{eq} threshold at the property lines. The project is required to monitor noise levels at the nearest property lines in the first year of the initial construction and whenever the construction operation changes. If noise levels exceed 62.5 dBA L_{eq} at any property line, the project is required to either build temporary noise barriers or berms to reduce these noise levels to 62.5 dBA L_{eq} or reduce the amount or size of construction equipment so as to maintain construction noise levels at or lower than 62.5 dBA L_{eq} at the project's property line.

The 2006 noise study included as Appendix D to the RFEIR analyzed noise impacts at the landfill site from additional construction activities related to the implementation of the double composite liner system as described in the RFEIR, the construction of facilities related to the use of recycled water, and increased habitat creation and habitat enhancement activities (RFEIR, Appendix D, p. 8-9). Based on that analysis, it was determined that potential construction noise levels as analyzed in the FEIR would not change (RFEIR, Appendix D, p. 9).

The 2009 noise study included as Appendix L to the 2009 Addendum analyzed noise impacts from the construction of wells at the three additional watersheds where pumping of percolating groundwater would occur, construction of water pipelines, and construction of an additional water storage tank within the Borrow/Stockpile B area, and determined that noise impacts would be less than significant (2009 Addendum, Appendix L, p. 12-13).

The 2009 noise study included as Appendix L to the 2009 Addendum analyzed noise impacts related to construction of the SGWVC loading station, and determined that construction noise impacts would be less than significant (2009 Addendum, Appendix L, p. 14).

The noise analysis evaluated long-term operational noise impacts from the project in combination with all noise from periodic construction activities even though the periodic construction activities will occur only intermittently as new cells for the landfill are created. It is currently estimated that the periodic construction will occur every 1-5 years. Ambient noise levels were added to periodic construction noise and operational noise from all sources to ensure a worst-case analysis. The noise analyses demonstrated that total noise impacts from all periodic construction and operational activities of the project, when added to existing ambient noise levels, would result in noise levels ranging between 54.6 dBA L_{eq} to 62.4 dBA L_{eq} at the property line adjacent to residential uses. This is within the noise limit of 62.5 dBA L_{eq} established by the County Noise Ordinance. Accordingly, these combined periodic construction and operational noise impacts would not be significant.

As noted previously, the noise analyses measured ambient noise levels at the nearest wildlife locations shown on Exhibit 4.6-4 of the FEIR and evaluated combined periodic construction and operational noise impacts upon wildlife and wildlife habitat in the area.

Noise testing demonstrated that ambient noise levels of 47.7 and 53.9 dBA L_{eq} currently exist at the nearest wildlife locations located on the western boundary of the project site and the northern boundary of the ancillary facilities area. The noise analyses indicated that 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 dBA L_{eq} threshold during the vireo breeding season (March 15 through September 15) and the southwestern willow flycatcher breeding season (late April through mid-September) resulting in a potentially significant noise impact to these species during their breeding season. To mitigate these potentially significant impacts, the project is required to conduct daily noise monitoring by a qualified acoustician between March 15 and September 15 during initial construction to verify that noise levels are below 60 dBA in all vireo and flycatcher habitat. If the 60 dBA L_{eq} is exceeded, the acoustician will work with the construction contractor to make operational changes or to install temporary noise barriers prior to March 15 to reduce construction noise levels during the breeding season to 60 dBA L_{eq} or below. Weekly noise monitoring is to occur following operational changes and/or installation of noise barriers to ensure their effectiveness. If any of these steps prove ineffective based upon noise testing, the acoustician will work with the construction contractor to make additional operational changes or to install additional temporary barriers that will reduce noise to less than 60 dBA L_{eq} during the vireo and flycatcher habitat breeding seasons. Mitigation measures that have been adopted also prohibit the project from using the low-flow crossing or constructing the bridge during the breeding seasons for the vireo or the southwestern willow flycatcher unless a qualified biologist determines that vireos and flycatchers are not onsite or testing demonstrates that operational changes or temporary noise barriers constructed prior to the breeding season reduce noise levels to below 60 dBA L_{eq} in the vireo and flycatcher habitat.

The noise analysis indicated that construction activities associated with the project had the potential to exceed the 60 dBA L_{eq} noise standard at the closest point to vireo and flycatcher habitat resulting in a potentially significant impact during the vireo and flycatcher breeding seasons. In order to mitigate this impact to a level of insignificance, a mitigation measure has been included requiring the construction of a temporary 12-foot high wall or berm along the northern edge of Borrow/Stockpile Area A located approximately 520 feet from the nearest construction equipment. Weekly monitoring will occur to verify that noise levels are below the 60 dBA L_{eq} standard in the nearest vireo and flycatcher habitat. If noise monitoring determines that noise levels are below 60 dBA L_{eq} at the nearest wildlife location (location 2), then the sound wall may be removed. The noise analysis demonstrated that with implementation of the temporary wall or berm, construction activities associated with the project would be below the 60 dBA L_{eq} standard for the closest wildlife or wildlife habitat.

Based on the updated traffic analysis contained in the 2006 noise study, there would be project-related indirect noise impacts from traffic on SR 76 to approximately 7.1 acres of on-site and 12.9 acres of off-site vireo and flycatcher habitat (RFEIR, p. 4.9-7 – 4.9-8). To mitigate this impact, a mitigation measure has been included requiring on-site creation or enhancement of 17.1 acres of vireo and flycatcher habitat, and off-site acquisition of 2.9 acres of vireo and flycatcher habitat, in areas that would not be affected by noise levels equal to or greater than 60 dBA L_{eq} (RFEIR, p. 4.9-8; MM4.9-14). A conservation easement will be placed across the off-site mitigation area to permanently protect the vireo and flycatcher habitat, and a Habitat Resource Management Plan would be prepared with respect to all mitigation areas (MM 4.9-14).

Operational noise impacts to habitat and species caused by the project were also evaluated. To ensure a worst-case analysis, existing ambient noise at the nearest wildlife locations on the project site were added to the maximum periodic and operational noise levels expected from the project. The project design elements include an 18-20 foot high earth berm behind the active working face and a 15-20 foot high sound wall that will be constructed along the northern edge of the landfill footprint and the truck route east of the facilities area as part of the project design. Noise testing established that with these design features the combined effect of ambient noise and all operational noise sources would result in total potential noise levels of 58.4 dBA L_{eq} in the nearest vireo habitat on site. Therefore, periodic construction and operational noise impacts upon wildlife habitat and species is not significant. However, noise monitoring has been required to verify that noise impacts to the least Bell's vireo and flycatcher habit does not exceed 60 dBA L_{eq} during the breeding season.

A mitigation measure included as part of the project requires implementation of a riparian habitat creation, restoration, and enhancement program to mitigate both direct and cumulative impacts to the least Bell's vireo, southwestern willow flycatcher, and arroyo toad. The noise analysis indicated that this program could potentially create significant impacts to the species through excessive equipment noise if installation occurred during their breeding seasons. In order to mitigate this secondary impact to a level of significance, a mitigation measure has been adopted requiring that the habitat restoration and enhancement program occur between September 15 and March 15 unless operational changes can be made and/or temporary noise barriers designed and installed prior to March 15 to reduce noise levels to less than 60 dBA L_{eq} in vireo and flycatcher habitat. The mitigation measure further requires that daily noise monitoring be conducted between March 15 and September 15 to verify that these measures are effective. If the 60 dBA L_{eq} standard is exceeded, the acoustician is required to work with the contractor to make additional operational changes or to install additional noise barriers that would reduce noise to less than 60 dBA L_{eq} in all vireo and flycatcher habitat.

The 2006 noise study included as Appendix D to the RFEIR determined that the increase in the acreage for habitat creation and habitat enhancement from 101 acres to 212.6 acres would not create any noise impacts beyond those already analyzed in the FEIR (RFEIR, Appendix D, p. 9).

The noise analysis indicated that noise levels from rock crushing and tire shredding associated with the project would not exceed 62.5 dBA L_{eq} at the nearest residences if the operations did not occur simultaneously. To avoid this result, a mitigation measure has been included prohibiting the tire shredding and rock crushing from occurring at the same time.

Although the noise analysis indicated that the flare station would not create any significant noise impacts, a project design feature has been adopted requiring that noise verification be conducted specifically for the flare station prior to commencement of its operation to ensure compliance with the 62.5 dBA L_{eq} and 60 dBA L_{eq} standards at the property line and for wildlife habitat, respectively.

The following design features have been included as part of the project to mitigate noise impacts from the project. Rock crushing or tire shredding will be located a minimum of

1500 feet from the nearest residential locations (locations 1 through 5) unless other forms of noise attenuation, such as berms or acoustical curtains are used to reduce combined landfill noise levels to below 62.5 dBA L_{eq} . A 15-20 foot high berm will be constructed and maintained along the western boundary of the Borrow/Stockpile Area A during initial construction and during future operations. The base elevation of the berm would change whenever the elevation of the stockpile increases or decreases. However, the height relative to the stockpile would remain at 15-20 feet above the top of the stockpile. Five-foot high berms will be constructed along the southern edge of the Borrow/Stockpile Area B and the landfill working face, which face the residential property south of the landfill. The berm shall block line of sight from the residential property to the heavy equipment working the southern portions of Borrow/Stockpile Area B and the landfill working face. A 10-16 foot high sound wall will be constructed along the northern edge of the facilities area and the truck route east of the facilities area. If noise monitoring determines that noise levels are below 60 dBA L_{eq} at wildlife location 2, then the sound wall may be removed. The flare station will be designed and located so that the flare does not generate noise levels that will exceed 49 dBA L_{eq} at a distance of 400 feet from the flare. Noise measures may include a sound wall at the base of the flare as well as any needed silencers on the equipment.

The 2009 noise study analyzed noise impacts from operation of percolating groundwater pumping wells in the three watersheds outside of Gregory Canyon, and determined those impacts to be less than significant. The project would utilize electrical pumps located within the well and underground, and they would not be a source of additional noise (2009 Addendum, Appendix L, p. 14).

Separate vibration analyses were completed to evaluate vibration impacts caused by blasting associated with the project on SDCWA pipelines located and planned on the project site, SDG&E electrical transmission facilities located on the project site, and the nearest residential structures. The ambient vibration level on the project site was first determined by obtaining vibration data at designated locations on the project site. Ground-borne free vibration data was gathered using a Larson Davis Model 2900 Spectrum Analyzer. A series of measurements were taken to determine the ground acceleration, velocity, and displacement. Test blasts were conducted so as to measure vibration influences on the project site.

The vibration analysis demonstrated that blasts at a distance of approximately 150 feet from both the SDCWA pipelines and the SDG&E facilities was sufficient to ensure no vibration impacts to these facilities with a substantial margin of safety. However, since the SDCWA has requested that no blasting occur within 500 feet of existing pipelines 1 and 2 on the project site, a design feature has been included prohibiting blasting within 500 feet of these pipelines unless approved by the SDCWA. Project design features require that all blasting operations be performed in accordance with the criteria adopted by the SDCWA design procedure manual 02229-3 dated February 1995. All drilling and blasting operations are required to be conducted by a State-licensed blasting contractor with adequate blasting insurance. Seismographic instrumentation will be placed along the SDCWA pipeline alignment in the vicinity of any blasting operations. All drilling and blasting must be performed during hours designated by local, State or Federal authorities. The vibration study documented that a blast separated by 150 feet from the pipelines and the SDG&E towers ensured that no vibration impact would occur with a safety factor of approximately 150%. A project design feature has been adopted prohibiting blasting within 150 feet of the SDG&E towers.

MM 4.1-3 of the FEIR requires the applicant to submit a copy of an executed agreement with SDCWA related to relocation and protection of the aqueduct pipelines, prior to commencing construction of the landfill (FEIR, p. 10-9).

The vibration analysis also evaluated impacts of project blasting upon the nearest residential structures. The vibration analysis demonstrated that a separation distance of approximately 230 feet ensured that no blasting impacts would occur to the nearest residence with a substantial safety factor. Since the nearest residential home site is over 800 feet from the closest possible blasting point for the project, the vibration analysis established that no significant vibration impacts would occur to the nearest residences from project blasting. The vibration analysis is contained in Appendix J of the FEIR. Although the vibration study did not document any blasting impacts upon any SDG&E structures, a design feature has been adopted prohibiting blasting within 150 feet of the SDG&E towers.

With the design features adopted as part of the project, no significant vibration impacts will occur to any SDCWA, SDG&E or residential structures located nearest to the project site. Design features and mitigation measures adopted as part of the project will also mitigate all noise impacts associated with the project to a level of insignificance with two exceptions. Existing noise levels at the cluster of residences located on SR 76 between I-15 and the western property boundary are currently experiencing noise levels exceeding the County standard of 60 dBA CNEL with or without the project. The noise analysis indicates that the project-generated traffic would increase these noise levels by .01 to 4.2 dBA CNEL. While sound walls could reduce the project's contribution to these noise levels to a level of insignificance, the property owner objects to installation of a sound wall necessary to mitigate this impact. Accordingly, the FEIR concludes that the project would result in significant and unmitigable noise impacts from traffic.

The FEIR and RFEIR indicated that project-related traffic, and cumulative future traffic in both the near term and year 2030 will cause an exceedance of the 60 dBA CNEL noise standard at residences located along SR 76 with or without the project (RFEIR, p.4.6-16 – 4.6-17). While sound walls could reduce both the project-related and cumulative contribution at these locations to less than significant, it would be necessary to install this sound wall as part of the future widening of SR 76 and Caltrans has not presently given its consent to the placement of this sound wall within the right-of-way (RFEIR, p.4.6-16). Although this mitigation measure has been included as part of the requirements for the project, the FEIR and RFEIR have concluded that noise impacts generated by cumulative traffic is significant and unavoidable. If Caltrans will allow the sound wall within the SR 76 right-of-way, the applicant is required to contribute a fair share for the construction of this sound wall (RFEIR, p.4.6-16 – 4.6-17).

Design and mitigation measures included as part of the project will reduce the construction and operational noise and vibration impacts of the project to adjacent sensitive receptors to a level of less than significant, with the exception of noise from project and cumulative traffic. Homes located along SR 76 are currently experiencing noise levels exceeding the County standard of 60 dBA CNEL without the project (RFEIR, Exhibit 4.6-2). Homes located along Camino del Sur, Camino del Norte and I-15 are currently experiencing noise levels exceeding the County standard of 60 dBA CNEL without the project (RFEIR, p. 4.6-13). To the extent applicable, the project would contribute incrementally to this degraded noise environment. Accordingly, project-

related traffic and cumulative traffic results in significant and unavoidable impacts to these residences currently experiencing noise levels exceeding the County noise standard (RFEIR, p.4.6-16 – 4.6-17). The LEA has determined that the benefits of the project outweigh this and other significant and unavoidable impacts of the project and has adopted overriding findings in accordance with CEQA Guidelines §15093. These overriding findings are included in a separate statement of overriding considerations.

The RFEIR finding of a project-related and cumulatively significant noise impact to Camino del Sur, Camino del Norte, and I-15, which constitute a portion of the haul route for recycled water from OMWD to the landfill site, may no longer be applicable. The recycled water truck trips analyzed in the 2006 traffic study will not be occurring since the recycled water contract between the applicant and OMWD has been invalidated and will not be pursued further (2009 Addendum, p. 1-2).

G. AIR QUALITY AND AIR TOXIC HEALTH RISK IMPACTS

1. Findings

[No change is made to this section.]

2. Facts in Support of Findings

[Changes to this section are underlined.]

A detailed analysis of air quality and air toxic health risks of the project was prepared for purposes of the FEIR. Prior to certification of the FEIR, the San Diego County Air Pollution Control District (APCD) provided comments requesting further changes in some of the assumptions made for both the air quality and toxic health risks studies. This resulted in the preparation of an entirely new air quality and air toxic health risk study prepared by PCR Services Corporation in May 2000 that was circulated for public comment. Thus study was supplemented by a June 2002 air quality and air toxic health risk technical report prepared by PCR Services Corporation contained in Appendix “K” of the FEIR. No new significant air quality or air toxic health risk impacts were identified in the June 2002 PCR study not previously discussed and analyzed in the prior studies.

Analysis of the potential air quality impacts of the Gregory Canyon landfill project was conducted for initial construction, worse-case periodic construction (year 19 of operation), and post-periodic construction worse-case operational phase (year 30 of operation) of the facility. For each of these phases, an analysis was performed for regional emissions. An analysis of the potential impacts on local ambient NO_x, PM₁₀, and CO concentrations from project-related construction and worse-case operational activities was also conducted. An air toxic HRA was also conducted to evaluate potential health effects for initial construction, worse-case periodic construction, and then worse-case operational phase of the project. A combination of the San Diego Air Pollution Control District and the Environmental Protection Agency’s regulations and guidance documents were used to assess emissions from construction and operation of the landfill.

The air quality analysis indicated the project will not result in any significant emissions of CO, VOC, or SO_x during construction or operation of the project. However, even with the

adopted project design features and mitigation measures, the project will result in significant emissions of NO_x and PM₁₀ during both construction and operation.

A number of design features and mitigation measures have been adopted to reduce, but not eliminate, these significant NO_x and PM₁₀ impacts of the project. The landfill operator will use non-toxic soil binders on the unpaved road surfaces of any established road within the project site to maintain silt content below 6%. The landfill operator will wash off the tire of trucks and construction equipment immediately upon traveling on on-site unpaved roads and prior to driving on off-site paved roads. All unpaved haul roads will be watered every two hours unless the road surface appears visibly damp. The project design includes the installation of a gas recovery and flaring system and incorporates Best Available Control Technology (BACT) for NO_x control. A number of mitigation measures have been adopted to reduce emissions of PM₁₀ and NO_x as described in Section 4.7 of the FEIR.

The project's exceedance of the PM₁₀ standards is due, in part, to the fact that the San Diego Air Basin currently exceeds California emission standards for PM₁₀. Principal sources of these PM₁₀ emissions from the project are construction activities and vehicle travel on unpaved road which are necessary by-products of landfilling activities. The principal sources of NO_x for the project are the exhaust from vehicles and equipment used in conjunction with the landfilling activities. The high levels of PM₁₀ emissions in the San Diego Air Basin are beyond the control of the project. Since the principal source of project NO_x emissions is equipment and vehicles exhaust, control of this exhaust is also largely beyond the control of the project. All feasible mitigation measures to reduce the project's NO_x and PM₁₀ emissions have been adopted. No other feasible mitigation measures to reduce these emissions to an insignificant level exist.

To evaluate potential project impacts on visibility in the Aqua Tibia Wilderness Area, a screening analysis was performed by PCR. The visibility screening analysis used projected maximum daily emissions totals of NO_x and PM₁₀ from the proposed project as well as values for background air pollutant concentrations and local meteorological conditions in evaluating these visibility impacts. The vantage point evaluated was the nearest point of the Aqua Tibia Wilderness boundary facing the project site boundary. This point is about 6 miles northeast of the project site. The analysis demonstrated that maximum emissions from construction and operation of the project would not cause a perceptible change in visibility at the closest vantage point within the Aqua Tibia Wilderness Area.

Odor impacts from the project were also evaluated. Principal odor impacts from landfills are caused by organic compounds that contain sulfur and mercaptans. The EPA has extensively studied landfill gas compositions from operational landfills throughout the United States. These studies have measured the highest levels of methane and sulfur compounds generated by landfills. EPA monitoring of existing operational landfills has shown that peak concentrations of sulfur and mercaptans range between 1 and 20 ppm. Assuming the highest concentration of 20 ppm occurs at the project, the resulting concentration of all mercaptans and sulfur compounds released to the atmosphere by the project would be 2 ppb. The detectable odor threshold for sulfur compounds by the human nose are hydrogen sulfite 200 ppb and mercaptans 27 ppb. Thus the maximum concentration of any sulfur compound generated by the project having an odor is 10 to 100 times lower than the detectable limit of the human nose. The odor analysis

therefore demonstrated there will not be any significant odor impacts at the project boundary.

Detailed air toxic health risk assessments were also completed to evaluate both the incremental cancer risk and the acute and chronic non-cancer health risks associated with project emissions. The air toxics health risk assessment was conducted in accordance with the protocol specified by the APCD. However, the health risk assessment analysis included all project emission sources although the APCD does not require that on-road and fugitive sources be included in a health risk assessment for APCD permitting purposes. The health risk assessment was performed utilizing the 2 years with the highest air toxics emissions from the project, years 2020 and 2030. These correspond with the highest years that periodic construction will occur and the highest year of maximum landfill gas generation. Conservative assumptions requested by the APCD in its comment letters were utilized in completing the health risk assessment. Existing ambient concentrations of air toxics were considered in the analysis. 2631 separate receptor points were evaluated in the analysis extending over a five-mile radius.

Individual cancer risk is typically expressed as the increased or excess chances in a million of developing cancer over an assumed 70-year lifetime of constant exposure. The APCD has determined that the significance criteria for cancer risk where the project employs Toxics Best Available Control Technology ("TBACT") is a 10 in 1 million chance of developing cancer. The project will be required to utilize TBACT. Utilizing the worst-case assumptions, the health risk assessment indicated the increased chance of developing cancer from the project over an assumed 70-year lifetime of constant exposure was 8 in 1 million, below the established significance threshold of 10 in 1 million set by the APCD. The cancer risk assessment analysis is extremely conservative since it assumes a constant exposure of the most affected individual over the entire 70-year period.

The significance of non-cancer (acute and chronic) risks is evaluated in terms of calculated hazard indices (HI) for different toxic end points (receptors), which are the sums of the ratios of expected maximum short or long-term concentrations to the respective allowable exposure levels determined for each pollutant by the State of California Office of Environmental Health Hazard Assessment (OEHHA). APCD has indicated that the acceptable HI levels at any toxic end point for both acute and chronic non-carcinogenic indices is 1.0. The health risk assessment determined that the acute non-cancer hazard index for the nearest receptor caused by project emissions in its peak year (2030) was 0.018 and the peak chronic non-cancer hazard index for the closest receptor in 2030 was 0.072. These values are well below the established significance threshold for acute or chronic health impacts. The health risk assessment therefore demonstrated the project would not create any significant acute or chronic health impacts.

Appendix D of the RFEIR analyzed potential air quality impacts from changes in the project described in Section 3 of the RFEIR, including construction of a double composite liner system. The RFEIR concluded that project-related air quality impacts arising from these changes would be less than significant (RFEIR, Appendix D, p. 2). However, the project, as revised, would continue to contribute to the significant and unavoidable PM₁₀ and NO_x impact previously disclosed in the FEIR (RFEIR, Appendix D, p. 2).

The 2009 air quality study analyzed air quality impacts from the construction of wells at the three additional watersheds where pumping of percolating groundwater would occur, construction of water pipelines, and construction of an additional water storage tank within the Borrow/Stockpile B area. The analysis determined that the estimates of potential air pollution provided in the FEIR air quality analysis were sufficient to account for these proposed improvements (2009 Addendum, Appendix L, p. 2). The 2009 air quality study also determined that air quality impacts from construction of the SGVWC loading facility and recycled water truck trips would result in impacts that are less than significant (2009 Addendum, Appendix L, p. 7; 10). No significant cumulative air quality impacts would occur with respect to these activities beyond those previously disclosed (2009 Addendum, Appendix L, p. 11).

H. AGRICULTURAL RESOURCE IMPACTS

[No change is made to this section.]

I. BIOLOGICAL RESOURCE IMPACTS

1. Finding

[No change is made to this section.]

2. Facts in Support of Finding

[Changes to this section are underlined.]

Detailed biological surveys of the project site and surrounding areas have been completed by biology experts over a period of 16 years. Approximately 30 habitat and sensitive species surveys of the project site and the surrounding areas have been completed by a variety of consulting biologists between 1989 and 1995. Additional detailed biological surveys of the project site and the surrounding areas were completed by Helix in 1997, 1998, and again in 1999. A separate focused survey for Quino Checkerspot butterfly on the project site was completed by Helix in May 2000 using protocol prescribed by the USFWS. On July 31, 2000 Helix performed two USFWS separate protocol surveys for California gnatcatchers and for Least Bell's vireo within the project impact areas. On October 10, 2000 Helix completed a USFWS protocol survey for the arroyo southwestern toad on the project site. The arroyo toad survey included the entire reach of the San Luis Rey River on-site and upland areas out of the floodplain. This survey also extended off-site to just west of the Couser Canyon bridge area. Updated surveys for southwestern arroyo toad, least Bell's vireo and southwestern willow flycatcher were completed in 2003. In 2003 and 2005, field studies were performed to confirm the existence or extent of quino checkerspot butterfly, arroyo toad, gnatcatcher, least Bell's vireo, golden eagle and southwestern willow flycatcher on the landfill property (RFEIR, Appendix E, p. 022-28 – 022-29).

Approximately 207 acres of the project site, predominantly within the river floodplain, have been disturbed by the former dairy and homestead activities. The remainder of the site, including the upper elevations of the site, Gregory Canyon and the slopes of the Gregory Mountain, contains native and non-native vegetation communities. Native vegetation communities on the project site include coastal sage scrub, coastal sage

scrub/chaparral, chaparral, native perennial grassland, coast live oak woodland, cottonwood-willow riparian forest, mule fat scrub, and southern willow scrub. Non-native vegetation communities on the project site include annual grassland, disturbed habitat, agricultural land, and existing developed agricultural land. The active floodplain of the San Luis Rey River comprises approximately 12.5 acres of the project site. Approximately .4 acres of ponds occur on the site. A total of 241.7 acres of the project site consist of annual grassland (34.5 acres), disturbed habitat (34 acres), agricultural land (78.7 acres), developed agricultural land (88.3 acres) and land with developed structures (6.2 acres).

No plant species considered threatened or endangered by the U.S. Fish & Wildlife Service ("USFWS") or the California Department of Fish and Game ("CDFG") were observed on the landfill site. Three species recognized as sensitive by the California Native Plant Society were identified on the landfill site: Engelmann Oaks, Rainbow Manzanita (*Arctostaphylos rainbowensis*) and Prostrate Spineflower (*Chorizanthe procumbens*). The following vegetation communities observed on the landfill site are sensitive; coastal sage scrub, southern willow scrub, and mule fat scrub. Open channel and ponds are sensitive because they are in the San Luis Rey River floodplain. The open channels and ponds are regulated by federal and state agencies.

Thirty-nine sensitive animal species were observed on the landfill site during the surveys conducted between 1989 and 2000. However, only 3 animal species observed on the project site or in the vicinity of the Caltrans SR 76 improvements included as part of the project are currently threatened or endangered. These are the arroyo southwestern toad, which is federal endangered, and the southwestern willow flycatcher, and the least Bell's vireo that are both federal and state endangered. A focused survey compiled by Helix on July 31, 2000 did not identify any California gnatcatchers on the project site. No other threatened or endangered species were identified on the project site. A detailed list of all sensitive plant and animal species observed during the numerous surveys is contained in Table 4.9-3 of the FEIR.

During preparation of the RFEIR, on-site vegetation was remapped to accommodate implementation of more current design plans, and verify or correct the original impact calculations (RFEIR, p. 4.9-14). The original vegetation mapping was not available in an electronic format, such as global information system (GIS) or computer assisted design (CAD). The RFEIR was, therefore, updated to reflect the acreage calculations using the modern mapping techniques (RFEIR, p. 4.9-15).

The RFEIR, after completion of field verification using GIS, documented that construction, operation, and closure of the project would significantly impact the following sensitive resources prior to mitigation: (1) 170.8 acres of coastal sage scrub and 1.7 acres of disturbed coastal sage scrub; (2) 51.5 acres of coastal sage scrub/chaparral; (3) 22.6 acres of coast live oak woodland; (4) 0.6 acre of native perennial grassland; (5) 0.4 acres of southern willow scrub and 0.4 acres of disturbed southern willow scrub; (6) 27.4 acres of chaparral; (7) 15.8 acres of non-native grassland; (8) 0.2 acres of cottonwood-willow riparian forest; and (9) 0.2 acre of open channel (floodplains) (RFEIR, Table 4.9-8, p. 4.9-15). Analyses included in the 2010 Addendum documented that the project would impact less than 1.3 acres of waters of the United States (with 0.7 acres of temporary impact and less than 0.6 acres of permanent impact), but that this impact would overlap the impacts on vegetation communities identified above (2010 Addendum, Table 4.9-5, p. 5-6).

The biological surveys determined that prior to mitigation significant impacts to the arroyo southwestern toad could occur as a result of the direct loss of breeding and upland habitat, increased potential for road kill due to traffic on-site, potential direct loss of individuals during construction, and attraction of nuisance species. The biological surveys also determined that prior to mitigation significant impacts could occur due to direct loss of breeding and foraging habitat for the least Bell's vireo and southwestern willow flycatcher and the potential for short and long term increases in noise due to construction traffic during the least Bell's vireo and southwestern willow flycatcher breeding seasons.

A pair of golden eagles nest on a portion of Gregory Mountain that will not be disturbed by the project. The golden eagle pair forage over the entire San Luis Rey River valley, the hill slopes north of SR 76, the area west of Gregory Mountain and Gregory Mountain itself where brush is not too dense. The golden eagle has not been classified as a threatened or endangered species under the Federal or State Endangered Species Act. However, the golden eagle is protected by the Migratory Bird Treaty Act (the "Act") (16 USC §703 *et seq.*). Case law has held that habitat destruction does not violate the Act. (*Seattle Audubon Society v. Evans* (9th Cir, 1991), 952 F.2d 297, 303). A golden eagle expert, Dr. Bittner, was retained to evaluate impacts of the project upon the golden eagle pair. Impacts to both the foraging habitat of the golden eagle pair and impacts to the golden eagle pair themselves were evaluated. Data collected by Dr. Bittner indicated that the golden eagle pair has nested and foraged in the project area for a period of approximately 9 years. The golden eagle pair has successfully reproduced during each of those 9 years. This data indicated that the golden eagle pair had adapted to both heavy equipment activity and territory disturbance, including noise, caused by the adjacent Fenton sand mine that is located approximately 1600 feet from the golden eagle nest. An evaluation of golden eagle foraging habitat on the project site indicated the project would cause the loss of approximately 29 acres of foraging habitat for the golden eagle pair. The rest of the eagle foraging habitat on site consisting of 600 acres will be preserved in dedicated open space. The Verboom and Lucio dairies will be removed by the project thereby providing additional potential foraging habitat for the golden eagle pair. Therefore, impacts to golden eagle foraging habitats are not significant due to the limited amount of impact (29 acres) and the increase in potential foraging habitat on site from dairy removal.

Field studies conducted in 2005 observed golden eagle along the San Luis Rey River corridor upstream of the landfill site, but no active use within the area of disturbance on the landfill property (RFEIR, Appendix E, p. 022-28 – 022-29).

Data collected by Dr. Bittner indicated that the golden eagle pair occasionally used the northernmost SDG&E transmission tower on the project site for perching. This is one of a number of perching sites for the golden eagle pair. The project will replace but not move this tower. This tower will not be replaced during the critical breeding season of the golden eagle pair from December through May. The project will preserve both the current and historic nest sites for the golden eagle pair on Gregory Mountain in dedicated open space. Accordingly, the nest site for the golden eagle pair will not be disturbed. The closest edge of the landfill would be 600 feet in elevation below the Gregory Mountain nest and approximately 1340 linear feet away from the cliff nest. Due to this substantial difference in elevation and the distance, Dr. Bittner concluded project activities would not significantly impact the golden eagle pair. Dr. Bittner's opinion was reinforced by data demonstrating that the golden eagle pair have not only survived but have successfully bred for 9 years

notwithstanding intensive industrial activities near the nesting site. Accordingly, it was concluded the project would not have any significant impact upon the foraging habitat for the golden eagle or the golden eagle pair. However, mitigation measures have been adopted as part of the project to require replacement of the northernmost tower during the period from July through October to avoid the golden eagle breeding season. Access to the Gregory Mountain nesting site will be restricted to eagle specialists and researchers conducting monitoring. Prior to ground disturbance, a pre-construction survey for the golden eagle pair will be conducted to determine if and where the eagles are nesting on-site. Weekly monitoring of the golden eagle pair will be conducted by an eagle specialist during the breeding season (December through May) to confirm the golden eagle pair is exhibiting reproductive behavior patterns, such as nest breeding. After one year of construction activity, if the monitoring determines that the eagles have abandoned the nest, the project is required to contribute to the County's habitat acquisition fund for purchase and preservation of known or potential golden eagle nesting habitat off-site to be included in the MSCP Preserve. The amount of this contribution shall be negotiated with the County. Initial landfill construction activity less than 2000 feet from the eagles' nest will begin as close to the end of the eagle breeding season in June as possible to allow the golden eagle pair on-site to become conditioned to the activity prior to its next breeding season starting in December. With adoption of these mitigation measures, no significant impacts to the golden eagle pair or their habitat will occur.

A red-tailed hawk nest is located on the southernmost SDG&E transmission tower that will be relocated by the project. Movement of this tower while the nest is active between December and May would not be allowed under the Migratory Bird Treaty Act. To avoid this impact, a mitigation measure has been adopted requiring that the southernmost tower be relocated only during the period from June through November or at a time when the nest is not active. This mitigation measure further prohibits removal of any raptor nest except when the nest is inactive. The mitigation measure requires that a qualified biologist determine whether or not a raptor nest is active. With adoption of this mitigation measure, potential impacts of the project upon the red-tailed hawk and other raptors have been mitigated to a level of insignificance.

Impacts of the project upon the three protected species found on the project site (least Bell's vireo, southwestern willow flycatcher, and arroyo toad) were extensively examined in consultation with the USFWS and the CDFG. This review has been undertaken as part of a Section 7 consultation with the USFWS to ensure that impacts of the project upon sensitive habitat and species are fully mitigated to a level of insignificance. Coastal sage scrub is habitat for California gnatcatchers, a protected species. During six surveys, no California gnatcatchers and no occupied nests were observed on the project site. In 1995, a biological survey identified a single California gnatcatcher north of SR 76 outside the project impact area. In 1998, a single California gnatcatcher was noted near Borrow/Stockpile B one time during a six-day survey of the site. A seventh biological survey conducted at the project site in the spring of 2000 at the request of the USFWS to determine if California gnatcatchers occupy the site did not identify any California gnatcatchers within any of the project impact areas. This spring 2000 survey confirmed that California gnatcatchers do not occupy the project site. Field studies conducted in 2005 again confirmed that no gnatcatchers were present on the landfill property (RFEIR, Appendix E, p. 022-28 – 022-29).

The biological surveys indicated that the project would impact 170.8 acres of coastal sage scrub, 1.7 acres of disturbed coastal sage scrub, and 51.5 acres of combined coastal sage

scrub and chaparral habitat for California gnatcatchers (RFEIR, Table 4.9-8, p. 4.9-15). The USFWS recommended that these impacts be mitigated at a ratio of 2:1. In keeping with this recommendation, a mitigation measure has been adopted requiring the project to create or enhance 63.6 acres of coastal sage scrub or coastal sage scrub/chaparral on-site, and to preserve a total of 384.6 acres of coastal sage scrub and coastal sage scrub/chaparral off-site in dedicated open space (MM 4.9-1a). The total on-site and off-site mitigation area of 448 acres will, in the aggregate include at least 345 acres of coastal sage scrub and at least 103 areas of either coastal sage scrub or coastal sage scrub/chaparral (MM 4.9-1a). The off-site mitigation acres will be preserved in perpetuity as open space through a conservation easement, and the on-site areas will be subject to a Habitat Resource Management Plan (MM 4.9-1a).

Southern willow scrub and mule fat scrub are habitat for the protected least Bell's vireo and southwestern willow flycatcher. The biological surveys indicated that the project would directly impact 0.4 acres of southern willow scrub and 0.4 acre of disturbed southern willow scrub (RFEIR, Table 4.9-8, p. 4.9-15). The USFWS recommended that a mitigation ratio of 4:1 be used to mitigate these impacts. Accordingly, a mitigation measure has been adopted requiring the on-site creation or enhancement within the dedicated open space area of 3.2 acres of southern willow scrub (MM 4.9-1d). A mitigation measure has also been adopted prohibiting removal of any southwestern willow flycatcher or least Bell's vireo habitat during their breeding seasons (MM 4.9-11a). Since noise testing indicated that use of the low-flow crossing and the bridge construction could produce short term construction noise that would exceed the 60 dBA L_{eq} standard during the vireo breeding season (March 15 through September 15) and the southwestern willow flycatcher breeding season (late April through mid-September) mitigation measures have been adopted requiring that this initial construction noise not exceed 60 dBA L_{eq} during the breeding season by requiring temporary noise barriers or operational changes to ensure noise levels do not exceed 60 dBA (see MM 4.9-12a through MM 4.9-12c).

Impacts to 0.2 acre of open channel/floodplain (RFEIR, Table 4.9-8, p. 4.9-15) will be mitigated through implementation of the habitat enhancement plan described below (MM 4.9-1e). Impacts to 22.6 acres of coast live oak woodland (RFEIR, Table 4.9-8, p. 4.9-15) will be mitigated at a 3:1 ratio as recommended by the USFWS through on-site creation or enhancement of 67.8 acres of coast live oak woodland (MM 4.9-1b). If possible, individual oak trees shall be salvaged from impact areas and transplanted to appropriate open space habitat on-site.

Impacts to 0.6 acre of native perennial grassland (RFEIR, Table 4.9-8, p. 4.9-15) will be mitigated at a ratio of 3:1 by the acquisition of 1.8 acres of the vegetation community in an unincorporated area of San Diego County and a conservation easement will be placed across the mitigation area to permanently protect the resource (MM 4.9-1c).

Temporary construction fencing will be erected around all of the construction areas, which will be marked with signs to protect the mitigation areas (MM 4.9-5a, MM 4.9-5c, MM4.9-5g and MM4.9-5i).

A total of 25 Engelmann oaks would be directly impacted as a result of the project. (MM 4.9-2.) A 3:1 minimum replacement acreage (based on canopy area) of Engelmann oak trees shall be preserved within the same area designated for creation or enhancement of coast live oak woodlands, if possible (MM 4.9-2). Otherwise a separate acquisition of Engelmann oak trees at a 3:1 minimum replacement acreage shall be required in an

unincorporated area of San Diego County. Any created, enhanced or acquired acreage shall then be subtracted from the coast live oak woodland mitigation requirement to avoid duplicate mitigation (MM 4.9-2). A conservation easement shall be placed across the off-site mitigation area (if any) to permanently protect the resource, and the off-site areas will be subject to a Habitat Resource Management Plan (MM 4.9-2).

In the focused biological survey completed in the spring of 2000 three arroyo southwestern toads, a protected species, were observed in several areas of the project site. Four southwestern arroyo toads were observed during the 2003 survey (RFEIR, Appendix F). Field studies for adult arroyo toads were conducted in 2005, with observed toad locations mapped (RFEIR, p. 4.9-10; Exhibit 4.9-5). The project would result in the permanent loss of less than 0.1 acre of toad riparian breeding habitat from construction of the bridge (2010 Addendum, Table 4.9-5, p. 5). The project would also result in the loss of approximately 17.5 acres of suitable upland arroyo toad habitat based on NCRS soil mapping (RFEIR, p. 4.9-11).

In calculating impacts to suitable upland arroyo toad habitat for purposes of the RFEIR, the criteria were the same as those used for purposes of the FEIR, and were based on the location of soft sands suitable for burrowing (RFEIR, Appendix E, p. 022-66 – 022-69). However, the analysis in the RFEIR relies on the calculation of impact acreage using a verifiable GIS analysis (RFEIR, Appendix E, p. 022-66 – 022-69). Several discrepancies were identified between the current GIS analysis and the analysis contained in the FEIR (RFEIR, Appendix E, p. 022-66 – 022-69). The RFEIR was, therefore, updated to reflect the acreage calculations using the GIS analysis (RFEIR, Appendix E, p. 022-66 – 022-69).

The FEIR found impacts to 306 acres of potential arroyo toad upland habitat. The current GIS analysis used in the RFEIR found impacts on 305.8 acres of potential arroyo toad upland habitat, which would be 306 acres if rounded to the nearest whole single digit (RFEIR, Appendix E, p. 022-66 – 022-69). Therefore, there is no change in the calculation of impacts in the RFEIR on potential arroyo toad upland habitat as defined in the FEIR.

The FEIR concluded that the project would result in impacts on 32 acres of suitable arroyo toad upland habitat, based on NCRS soil mapping (RFEIR, Appendix B, p. 3-3). The GIS analysis used in the RFEIR attempted to reproduce the 32 acres using the criteria stated in the FEIR. However, reproducing the results from the FEIR was not possible (RFEIR, Appendix B, p. 3-3). The GIS acreage calculation provided in the RFEIR used the same criteria that were used in the FEIR, and determined that the project would result in impacts on 17.5 acres of suitable arroyo toad upland habitat (RFEIR, Appendix B, p. 3-3).

All impact areas on the landfill property were then evaluated in an attempt to determine if the 32 acres of suitable arroyo toad upland habitat identified in the FEIR could be identified elsewhere within disturbed areas on the landfill site, including consideration of the 17.5 acres of habitat that had been identified using the criteria for suitable arroyo toad upland habitat from the FEIR (RFEIR, Appendix E, p. 001-3 – 001-6). Analysis of field observation data determined that suitable arroyo toad upland habitat as defined in the FEIR did not occur elsewhere within disturbed areas on the landfill site (RFEIR, Appendix B, p. 3-3 – 3-4).

The FEIR indicated “toads commonly travel up to 0.5 kilometer from the stream and that the distance toads travel from the breeding sites depends on topography and the extent of suitable habitat.” (FEIR, p. 4.9-38.) In forming its opinion regarding impacts and

appropriate mitigation, the RFEIR noted that while toads may move along roads, the only sightings indicated in any of the prior surveys along roads were within 100 meters of suitable upland habitat and/or the river channel (RFEIR, Appendix E, p. 001-3 – 001-6). In addition, in performing field studies in 2005, nighttime field observations were conducted in an attempt to validate prior studies and further evaluate the extent of upland toad habitat (RFEIR, Appendix E, p. 001-3 – 001-6). Based on all of the available information, the RFEIR concluded that it was unlikely that arroyo toad would occur in significant numbers in impact areas on the landfill property outside of the identified 17.5 acres of suitable habitat (RFEIR, Appendix E, p. 001-3 – 001-6).

While it is possible that individual toads may occasionally be present in other impact areas, the likelihood of occurrence in areas outside of the identified 17.5 acres of suitable habitat is small (RFEIR, Appendix E, p. 001-3 – 001-6). The RFEIR concluded it was not appropriate to require mitigation where the connection to actual use by toads is tenuous (RFEIR, Appendix E, p. 001-3 – 001-6). Moreover, the RFEIR determined that the level of mitigation provided in the RFEIR fully compensates for impacts on upland arroyo toad habitat. In part, the basis for that determination was that the 88 acres of upland arroyo toad habitat to be created on-site would support toad populations in excess of the numbers that may occasionally use impact areas on the landfill site outside of the identified 17.5 acres of suitable habitat. (RFEIR, Appendix E, p. 001-3 – 001-6.)

A number of mitigation measures have been adopted to avoid harm or injury to the arroyo southwestern toad during construction and operation of the project. (MM 4.9-5a through MM 4.9-5i and MM 4.9-6). Exclusion fencing will be installed to separate the arroyo toad and arroyo toad habitat from the construction and facility areas. The construction zone for the bridge will be fenced with exclusion fencing to prevent toad access to the construction zone. Exclusion fencing will also be installed along both sides of the access road for its entire length. Exclusion fencing will also be installed on the north side of the haul road to Borrow/Stockpile Area A and along both sides of the low-flow crossing until the road connects with the haul road. This exclusion fencing will effectively separate the arroyo toads from the construction and operational zones of the project. The adopted mitigation measures require surveys to be conducted by a qualified biologist following installation of the fencing to locate arroyo toads in the impact areas. Any toads that are located in any impact areas will be relocated to appropriate toad habitat outside project impact areas and in dedicated open space. At least one road under crossing will be installed in the fill beneath the access road north and south of the river to permit toad crossing outside the impact areas. The exclusion fencing will be monitored daily by a qualified biologist during the construction period to ensure that the exclusion fencing remains effective to separate the arroyo toads from the project impact areas.

To mitigate the permanent loss of less than 0.1 acres of arroyo southwestern toad riparian breeding habitat from construction of the bridge, the project will undertake habitat creation and enhancement activities for specified riparian vegetation communities (MM 4.9-1d and f) and implement the habitat enhancement plan (MM 4.9-18) (see MM 4.9-3a). The potential loss of upland habitat for the arroyo toad has been mitigated to a level of less than significant by on-site creation or enhancement of approximately 88 acres of suitable upland habitat (MM 4.9-4). To ensure that riprap associated with the access road bridge does not harbor potential predators of the arroyo toad, the bridge abutment requires that gaps in the riprap be filled with concrete (MM 4.9-7).

The project would impact approximately 0.8 acres of southern willow scrub and disturbed southern willow scrub, which is habitat for the least Bell's vireo and southwestern willow flycatcher. This has been mitigated by creating or enhancing 3.2 acres of this habitat on the landfill site (MM 4.9-1d).

Initial construction of the project could produce short-term construction noise that would potentially exceed the 60-dBA threshold during the vireo breeding season and the southwestern willow flycatcher breeding season. To ensure that this does not occur, a qualified acoustician is required to conduct daily noise monitoring during the breeding season to ensure that construction activities do not exceed the L_{eq} 60-dBA level (MM 4.9-13). Noise barriers are to be constructed as necessary to ensure that daily noise levels stay below the 60 dB L_{eq} threshold (MM 4.9-15b). Adopted mitigation measures prohibit use of the low-flow crossing during the breeding seasons for the vireo and southwestern willow flycatcher unless noise levels below 60 dBA L_{eq} are verified. (MM 4.9-12b.) The bridge construction is limited to the non-breeding season 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 unless operational changes can be made through the use of noise barriers to ensure that noise levels during bridge construction are maintained below 60 dB L_{eq} (MM 4.9-12c).

Based on updated information developed from the 2006 traffic study, approximately 7.1 acres of on-site and 12.9 acres of off-site vireo and flycatcher habitat would be significantly impacted by traffic noise on the landfill site caused by the project. This impact has been fully mitigated to a level of less than significant by requiring 17.1 acres of vireo and flycatcher habitats be created on the landfill site in dedicated open space, and 2.9 acres acquired off-site, within areas that would not be affected by noise levels equal to or greater than 60 dBA L_{eq} (MM 4.9-14). The off-site mitigation acres will be preserved in perpetuity as open space through a conservation easement, and the on-site areas will be subject to a Habitat Resource Management Plan (MM 4.9-14). To ensure that noise levels from landfill equipment and from use of borrow stockpile A do not create noise levels exceeding 60 dBA L_{eq} in any vireo or flycatcher habitat, a mitigation measure has been adopted requiring construction of a temporary 12 foot high wall or berm along the northern edge of Borrow B/Stockpile Area A outside the vireo and flycatcher breeding season (March 15 to September 15) and prior to use of Borrow/Stockpile Area A (MM 4.9-15a).

With the design features and mitigation measures included as part of the project, the project will not result in any significant impacts to any biological resources.

A number of design features and mitigation measures have been adopted to reduce the potential for the project to impact wildlife movement to a level of insignificance. The project design incorporates a minimum 100-foot riparian buffer between the landfill operations and the river habitat except where the access road/bridge crosses the river to permit wildlife movement. The 100-foot buffer cannot be provided at the bridge crossing since the bridge must cross the river. The landfill perimeter fencing has been designed to permit wildlife movement through the project site. A block of habitat between the two borrow/stockpile areas has been preserved as open space to permit wildlife movement through this area. Access road and bridge construction will occur only during daylight hours when wildlife movement is less frequent. The deck of the bridge has been designed to be 17.5 feet above the riverbed allowing for wildlife movement beneath the bridge. The bridge pilings have been separated by more than 100 feet to allow wildlife movement under the bridge. The access road and bridge would not be lighted at any time thereby eliminating potential

avoidance of the area by wildlife from night lighting. The entire access road including the bridge would be gated and locked barring human access during the non-operational hours of the landfill. The haul road to Borrow/Stockpile Area A would only be used during the initial nine to twelve month construction period and at final landfill closure and the low-flow crossing will only be used during initial construction to minimize interference with wildlife movement.

Biology experts also evaluated potential indirect impacts of project construction and operation upon the vegetation communities and wildlife on the project site. Indirect impacts that were evaluated included potential impacts to water quality that would harm the habitat or species, fugitive dust, the introduction of non-native plant species, injury or damage caused by human activity, potential road kill, the potential to introduce nuisance species, and potential indirect impacts caused by habitat fragmentation, night lighting, and noise. The biology experts determined that none of these impacts were significant with the design features and mitigation measures included as part of the project. Geology and hydrogeology studies of the project site demonstrated the project would not impact surface or groundwater resources in the area. As noted in the air quality section of these findings, design features and mitigation measures included as part of the project have mitigated potential fugitive dust impacts from the project to a level of insignificance. The potential for non-native plant species invasion has been mitigated by requiring the project to control these species as described in the habitat enhancement plan and by requiring the applicant to revegetate areas disturbed by landfilling activities with native species.

A mitigation measure has been adopted requiring temporary and permanent slopes to be re-vegetated with native plant species to inhibit the growth of non-native plants. To avoid potential impacts from vegetation trampling, a mitigation measure has been included requiring that all access routes to the project site be restricted to existing roads and requiring the landfill operator to direct the project traffic away from the non-impact areas. Areas not directly impacted by the project will be posted with signs precluding access due to habitat sensitivity. A public education program is to be developed by a qualified biologist and will be implemented to inform landfill staff and visitors about access restrictions and the sensitivity of habitats on site. The exclusion fencing will also protect the dedicated open space areas.

Potential impacts from illegal dumping have been mitigated to a level of insignificance by requiring the project to clean up all waste illegally dumped on a daily basis, 5 days per week. Additional road kill of nocturnal animals from the project's increase in traffic on SR 76 would be minimal because of the daytime operational hours of the landfill (7 A.M. to 6:00 P.M.) with the exception of a few employees leaving the site. Potential road kill from traffic during the initial construction period (6 to 9 months) is not significant for a variety of reasons. First, this impact will only occur during the six to nine months of initial construction. Second, the majority of the vehicular construction activity will occur during daylight hours when many animals are less active and the number of evening trips occurring on site would be the same or less than the amount already occurring on site as part of the historic dairy operations. Third, the dairies, and therefore the dairy traffic, already have been removed. Fourth, the use of daily cover to cover the waste each day will minimize the attraction of nuisance species to the landfill site. In addition, construction of a litter fence around the active face of the landfill will help control wind-blown trash that could provide additional sources for bird foraging. Playback of distressful vocalizations, falcon kites, owl decoys, and disbursal of nuisance birds by humans and/or dogs will minimize predator behavior.

The brown-headed cowbird which parasitizes the nest of least Bell's vireos and southern willow flycatchers presently exist on the project site as a result of the Verboom Dairy. The removal of the dairies has already benefited these species by removing the cowbirds as a predator. Rodent control will be provided as part of the project at the landfill and facilities area and would include restricting the duration of tire storage to no more than six months, using conventional traps, and using an anticoagulant rodenticide. The rodenticide does not transfer through the food chain. Insects and other birds will also be controlled through professional pest control services.

Detailed biological reports and biological surveys of the project site also evaluated potential cumulative impacts of the project and other planned and anticipated projects in the area upon the loss of habitats, habitat fragmentation, decreased water quality, night lighting, human activity, and the introduction of non-native plant species. Biology experts also evaluated potential cumulative impacts of the project and other planned or future projects in the area upon protected species caused by indirect traffic noise impacts. These potential cumulative biological impacts have been mitigated to level of insignificance by requiring the project to implement the habitat enhancement plan described in Appendix "L" of the FEIR.

The purpose of the habitat enhancement plan is to provide additional habitat on the project site for the protected arroyo toad, least Bell's vireo, and southwestern willow flycatcher that does not presently exist on the project site. The habitat enhancement plan will result in a net long-term gain of 24.1 acres of wetland habitat and 131.4 acres of upland terrace habitat needed by the three protected species (RFEIR, p. 4.9-17). In addition, 57.1 acres of existing riparian habitats in the San Luis Rey River channel on-site will be preserved in dedicated open space and enhanced through the removal of invasive, exotic plant species (RFEIR, p. 4.9-17).

After implementation of the habitat enhancement plan, one mile of the San Luis Rey River and adjacent upland areas totaling approximately 212.6 acres will be improved by habitat creation and enhancement (RFEIR, p. 4.9-17). This habitat will be preserved in dedicated open space. Since biological surveys of the project site have demonstrated that the San Luis Rey River is the primary breeding habitat for the arroyo toad and southwestern willow gnatcatcher, improving one mile of the habitat in the San Luis Rey River will substantially enhance breeding opportunities and habitat territory for these protected species. The habitat enhancement program will be implemented under the supervision of a qualified biologist.

The habitat enhancement areas will also be planted with coast live oak, Engelmann oak, western sycamore, and cottonwood trees at a rate of 100 trees per acre. Maintenance and monitoring of the habitat enhancement areas will occur over a period of five (5) years under the control of a qualified biologist. As part of the monitoring program, annual reports will be prepared by a qualified biologist and will be submitted to the Army Corps and California Department of Fish & Game evaluating the success of the habitat creation and enhancement effort along with any recommendation for future work that may be deemed necessary. With implementation of the habitat enhancement plan, the project's contribution to cumulative impacts to biological resources has been mitigated to a level of insignificance.

A number of comments were received from both experts and non-experts asserting the project would significantly impact biological resources in the area. In response to these comments, detailed biological surveys of the project site and the surrounding areas were

completed by Helix in 1997, 1998, and again in 1999 and focused surveys were conducted in 2000 for the Quino Checkerspot butterfly, the California gnatcatcher, the Least Bell's Vireo, and the Southwestern toad. Focused surveys were conducted again in 2003 for the Arroyo Southwestern Toad, Least Bell's Vireo, and Southwestern Willow Flycatcher. The focus surveys for the Arroyo toad and Least Bell's Vireo confirmed prior surveys for the species discussed at length in the FEIR. The 2003 survey for southwester willow flycatchers did not identify any of this species on the project site. Surveys completed before certification of the FEIR on February 6, 2003 had identified two southwestern willow flycatchers on the site. (FEIR pg. 4.9-44). Field studies conducted in 2005 and 2006 indicated the presence of arroyo toad and least Bell's vireo on the landfill property, but quino checkerspot butterfly, gnatcatcher and southwestern willow flycatcher were not observed (RFEIR, Appendix E, p. 022-28 – 022-29). Field studies conducted in 2005 observed golden eagle along the San Luis Rey River corridor upstream of the landfill site, but no active use within the area of disturbance (RFEIR, Appendix E, p. 022-28 – 022-29). Mitigation measures included in the RFEIR require the project to mitigate for the loss of 0.4 acres of southern willow scrub and 0.4 acres of disturbed southern willow scrub, which provide habitat for least Bell's vireo and southwestern willow flycatcher (MM 4.9-1d). Doctor Bittner, a golden eagle expert, also performed an extensive field investigation of the pair of golden eagles that nest on a portion of Gregory Mountain. These detailed biological surveys and the fieldwork of Dr. Bittner did not support comments from experts and non-experts asserting the project would significantly impact biologic resources with the mitigation measures adopted. Since the conclusions of these commentators was not supported by any biologic data on the project site or surrounding areas, and extensive biologic surveys were completed for the project site and surrounding areas that did not support these conclusions, they were not accepted.

The project has adopted a strategy of using on-site creation or enhancement of specified vegetation communities as mitigation for project impacts.

Open space preservation on-site would leave these areas in their current state. In contrast, habitat creation and habitat enhancement would involve physical activities undertaken for the goal of establishing specific vegetative communities and habitat for threatened species, in accordance with the strategies, physical activities and monitoring and maintenance requirements set forth in Appendix L of the FEIR (RFEIR, Appendix E, p. 022-29 – 022-30). In addition, MM 4.9-18 requires the submittal and approval of a detailed Habitat Resource Management Plan. Both the trial court and the Court of Appeal have upheld this strategy for mitigation of impacts to biological resources.

The FEIR established the feasibility and appropriateness of using habitat creation and habitat enhancement on the landfill site in dedicated open space as mitigation (FEIR, Appendix L, Draft Wetland Mitigation and Habitat Enhancement Plan, p. 9). The RFEIR also included a discussion of the feasibility and likelihood of success of habitat restoration and creation (RFEIR, Appendix B, p. 2-2). This analysis was upheld as adequate by the trial court and the Court of Appeal.

The FEIR provided for mitigation of indirect and cumulative impacts to biological resources through implementation of the habitat enhancement plan (MM 4.9-18). Analyses included in the RFEIR indicated that the cumulative impacts had not changed from those identified in the FEIR, with the exception of an increase in cumulative traffic-related noise impacts based on information provided in the 2006 traffic study (RFEIR, p. 4.9-8; Appendix B, p. 6-1

– 6-2). The RFEIR modified and updated the habitat enhancement plan, which included more than doubling the size of the habitat creation and enhancement areas from 103 acres to 212.6 acres (RFEIR, p. 4.9-17). As a result, the habitat enhancement plan (MM 4.9-18) provides adequate mitigation for both project-related direct and indirect impacts as well as cumulative impacts. This determination was upheld by the trial court and the Court of Appeal.

The FEIR analyzed project impacts to jurisdictional waters of the U.S. and the state, and this analysis was updated in the RFEIR (FEIR, Table 4.9-5, p. 4.9-31; RFEIR, p. 4.9-3). The FEIR concluded that no significant impacts to jurisdictional waters would occur, since these impacts overlapped impacts to vegetation communities that, with mitigation, were reduced to a level of less than significant (FEIR, p. 4.9-31). Subsequently, the estimates of the extent of jurisdictional waters have changed based on a new jurisdictional determination issued by the U. S. Army Corps of Engineers, and determinations made by RWQCB and the California Department of Fish & Game. The 2010 Addendum includes updated information regarding the extent of federal and state jurisdiction (2010 Addendum, Table 4.9-5, p. 5-6). After considering the analysis supporting the various agency determinations, the 2010 Addendum concluded that the updated documentation did not result in any significant impacts nor require any new mitigation measures or project design features (2010 Addendum, p. 16).

With the design features and mitigation measures adopted, the project will not result in any significant biologic impacts individually or cumulatively.

J. PALEONTOLOGICAL RESOURCE IMPACTS

[No change is made to this section.]

K. ARCHEOLOGICAL AND CULTURAL RESOURCE IMPACTS

1. Findings

[Changes to this section are underlined.]

Pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in, or incorporated into, the project, which will mitigate all potentially significant impacts to archeological and cultural resources to a level of insignificance except for potential impacts arising from the possible future listing of Gregory Mountain or Medicine Rock to the National Register of Historic Places. In that event, Gregory Mountain and Medicine Rock would become significant historic and cultural resources, and the subjective impacts to those resources would be significant and unavoidable.

The LEA finds and determines that all feasible mitigation measures to reduce impacts to archaeological and cultural resources have been adopted and that the significant impacts of the project are outweighed by the benefits of the project in accordance with CEQA Guidelines §15092(b) and §15093. This is discussed in more detail in the separate statement of overriding considerations.

2. Facts in Support of Finding

[Changes to this section are underlined.]

Archeological and cultural resource experts were retained to evaluate archeological and cultural resource impacts to the project. Detailed archeological surveys and evaluations of the project site were previously completed by Schaefer in 1990, Scientific Resources Surveys in 1992 and Ogden Environmental Services. A detailed investigation of archeological and historical sites was initially completed by ASM Affiliates in January 1999. These investigations indicated there were five archeological sites and one historic site located within the areas of direct impact of the proposed project. The report also evaluated archeological and historic sites not directly impacted by the project. Between late November 1998 and early March 1999 RMW Paleo Associates completed a more detailed evaluation of the archeological sites potentially impacted by the project. In December 1999 RMW Paleo Associates conducted a focused evaluation of the J.P. Higgins Homestead potentially impacted by the project. The archeological and cultural resource studies included an evaluation of Medicine Rock which will not be directly impacted by the project and which is located approximately 1400 feet from the ancillary facilities area on the H.G. Fenton Sand and Gravel operation. The archeological and cultural resource studies are contained in Appendix "N" of the FEIR.

The archeological and cultural resource evaluations identified 15 archeological sites located on the landfill property. Medicine Rock which includes Native American rock art and which is located approximately 1400 feet from the ancillary facilities area on the H.G. Fenton property was also evaluated. The archeological and cultural resource studies found that 11 of the 15 archeological sites located on the project site were not significant. The studies further determined that the project will directly impact only two resources having historic significance, the Higgins Family Cemetery and a few artifacts found at the former James P. Higgins Homestead site. The Higgins Homestead was destroyed in 1928. However, some glass bottles jar fragments, and ceramic were found in dense brush at the location of this former site. No other direct impacts to any archeological or historic sites will occur as a result of implementation of the project. Mitigation measures have been adopted to mitigate the potentially significant impact to the Higgins Family Cemetery and artifacts found at the former Higgins Homestead. To mitigate the impacts to the Higgins Family Cemetery to a level of insignificance, this cemetery will be relocated to a nearby active cemetery out of the project impact area and preserved. To mitigate potential artifacts found at the former Higgins Homestead, adopted mitigation measures require the project to retain a qualified archeologist to recover any historically significant artifacts discovered during grading at the former Higgins Homestead.

Although the archeological and cultural resource studies determined that the project would not directly impact any other resources having historic or cultural significance, these studies did determine that increased human activity on the project site had the potential to disturb five additional culturally significant sites located on the project site as the result of vandalism. In order to mitigate these potential impacts to a level of significance, the project is required to retain a registered professional archeologist and a Native American monitor, if appropriate, to protect these sites. Mitigation measures proposed by the archeologist may include fencing, barricades, or remote monitoring devices, which will be installed prior to disturbance in the area to protect the resources. If the archeologist determines that erosion, looting, vandalism or other indirect impacts from the project have occurred at any of the culturally significant sites, site preservation and/or data recovery efforts will be

implemented. Upon completion of all earth disturbing activities, the archeologist's monitor will prepare a report. This report will include the results of the field work and all appropriate laboratory and analytical studies that were performed in conjunction with resource excavation. This report will be submitted to the County for a review and comment.

Medicine Rock is located a substantial distance from the project site and will not be directly impacted by the project. As noted previously, Medicine Rock is located about 1400 feet from the ancillary facilities area for the project on property owned by H.G. Fenton that is north of the project site. This property is presently being used for a sand and gravel operation. Since Medicine Rock consists of rock art of significance to Native Americans, mitigation measures have been adopted to ensure that the project does not indirectly impact Medicine Rock as an archaeological resource. Adopted mitigation measures require the project to apply water on access roads, stockpiles, and cleared areas every three hours during periods of high wind to reduce potential dust impacts to Medicine Rock to a level of insignificance. In addition, landscaping will be installed between the landfill and Medicine Rock, which will serve as a dust screen thereby preventing any dust impacts to Medicine Rock. However, due to the distance between the project and Medicine Rock (1400 feet) and the fact the prevailing wind pattern in the area is from the northwest away from Medicine Rock which is north of the project site it is extremely unlikely that any dust from the project will impact Medicine Rock even without the mitigation measures.

With the mitigation measures adopted, potential impacts to significant CR-eligible cultural resources have been mitigated to a level of insignificance. The mitigation measures are discussed in Section 4.11 of the FEIR.

However, in the event that Gregory Mountain or Medicine Rock were listed on the National Register of Historic Places in the future, they would be considered significant historical and cultural resources.

Although the technical analysis of impacts from the project did not disclose significant impacts to either Gregory Mountain or Medicine Rock and the recent use of either Gregory Mountain or Medicine Rock for religious or spiritual purposes has not been documented, the FEIR accepted the subjective beliefs of the Luiseño people that impacts of the project upon both Gregory Mountain and Medicine Rock are significant and unavoidable, due to the lack of conventional measurable performance standards to define level of impact significance (FEIR, p. 4.12-13). Mitigation measures have been adopted to reduce these subjective impacts wherever feasible. The project has been required to either convey a permanent open space easement or to dedicate the western slopes and the top of Gregory Mountain to preserve the resource (MM 4.12-1a). The project will also dedicate an access easement that will grant the Pala Band of Mission Indians the right to walk or hike from the western boundary of the land owned by the Pala Band to the summit of Gregory Mountain (MM 4.12-1b). The project will also provide a cash contribution to the Pala Band of Mission of Indians to create a footpath to the top of Gregory Mountain (MM 4.12-1c). Construction of this footpath will be the responsibility of the Pala Band of Mission Indians and is not part of the project. The project will 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 (MM 4.12-1d).

Based on traditional technical measures of air quality, noise, visual impacts and dust, the project will not result in any significant impacts to either Gregory Mountain or Medicine Rock after mitigation (FEIR, p. 4.12-13). However, the Luiseño believe that impacts of the

project on 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 are difficult to measure by conventional performance standards (FEIR, p. 4.12-13). Given the lack of objective standards to determine whether there would be a significant effect on a culture's experience, the FEIR conservatively concluded that project impacts on Gregory Mountain and Medicine Rock are significant and unavoidable. Since this finding of significance is based upon subjective judgment and not upon technical studies, there are no mitigation measures that can be adopted to reduce these subjective impacts to a level of insignificance (FEIR, p. 4.12-13).

In the event that Gregory Mountain or Medicine Rock is listed on the National Register of Historic Places, they would become significant historic and cultural resources, and the subjective impacts to those resources would be significant and unavoidable (RFEIR, p. 4.11-2).

The LEA finds and determines that all feasible mitigation measures to reduce impacts to archaeological and cultural resources have been adopted and that the significant impacts of the project are outweighed by the benefits of the project in accordance with CEQA Guidelines §15092(b) and §15093. This is discussed in more detail in the separate statement of overriding considerations.

L. IMPACTS TO ETHNOHISTORY AND NATIVE AMERICAN INTERESTS

1. Findings

[Changes to this section are underlined.]

Pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required and incorporated in to the project, which will mitigate all potentially significant impacts to ethnohistory and Native American interests, other than impacts to Medicine Rock and Gregory Mountain, to a level of insignificance. The LEA finds that project impacts upon both Medicine Rock and Gregory Mountain are significant and unavoidable. In addition to the findings made in the FEIR, the possible future listing of Gregory Mountain or Medicine Rock on the National Register of Historic Places would also create significant and unavoidable impacts.

The LEA finds that all feasible mitigation measures have been adopted to reduce the project impacts upon Medicine Rock and Gregory Mountain and that the significant impacts of the project are outweighed by the benefits of the project in accordance with CEQA Guidelines §15092(b) and §15093. This is discussed in more detail in the separate statement of overriding considerations.

2. Facts in Support of Findings

[Changes to this section are underlined.]

An evaluation of project impacts upon ethnohistory and Native American Resources was completed by Tierra Environmental Services, experts in ethnohistory and Native American resources, in February 1998. ASM Affiliates, an expert in ethnobotanical resources, evaluated ethnobotany impacts of the project and prepared a written report dated December 2, 1998. These studies are included in Appendix "O" of the FEIR.

Two cultural resources of significance to Native Americans were identified as the result of the detailed investigations of the project site and surrounding areas. These two cultural resources are Gregory Mountain and Medicine Rock, which have significance to the Luiseño. Gregory Mountain, called "Chokla" by the Luiseño is believed by the Luiseño to be one of the residing places of "Taakwic", a powerful and feared spirit that is the guardian spirit of many Shoshonean Shamans. The western portion of Gregory Mountain, including the peak, is located on the eastern boundary of the project site. The eastern portion of Gregory Mountain is on the Pala Indian Reservation. Because the peak and the western portion of Gregory Mountain have been in private ownership for many years, tribal access to the site for spiritual and religious uses has been limited. Heavy underbrush and topography limit access to the top of Gregory Mountain.

The second important cultural resource to the Luiseño is Medicine Rock. Medicine Rock is not located on the project site. At its nearest point, Medicine Rock is located approximately 1,400 feet from the ancillary facilities included as part of the project. Medicine Rock is located on property owned by H.G. Fenton, which is presently being utilized for a sand and gravel operation. No other cultural resources of significance to Native Americans were identified on the project site or the surrounding area.

Impacts of the project upon both Gregory Mountain and Medicine Rock were evaluated from both an objective and subjective standpoint. For the objective evaluation, air quality, noise, and visual impact studies were completed to evaluate project impacts upon Gregory Mountain and Medicine Rock. The subjective component considered the subjective belief of the Luiseño that impacts of the project to Gregory Mountain and Medicine Rock are significant and unmitigable. Both standards were considered in evaluating project impacts.

Air quality, noise, and visual impacts of the project upon both Gregory Mountain and Medicine Rock were completed. The air quality analysis completed by PCR Services in November 2000 showed that both Medicine Rock and the top of Gregory Mountain would be below the impact criteria for criteria pollutants, except for PM_{10} . Mitigation measures have been adopted to reduce potential dust impacts of the project upon both Gregory Mountain and Medicine Rock to a level of insignificance. To mitigate these impacts, the project is required to apply water on access roads, stockpiles and cleared areas every three hours so the dust from project operations does not occur. Landscaping that will be installed between the landfill and both Gregory Mountain and Medicine Rock will serve as a dust screen and will reduce visual impacts created by fugitive dust and landfill operations to a level of insignificance. A noise analysis was completed to evaluate noise impacts of the project upon both Medicine Rock and Gregory Mountain. Medicine Rock is located approximately 1400 feet from the facilities area and 800 feet from the nearest northeastern portion of the landfill footprint. Selected points on the top of Gregory Mountain are located from 3,000 to 7,200 feet from the facilities area and from 950 to 3,600 feet from the landfill footprint. Noise measurements demonstrated that project noise would not exceed the County standard of 62.5 dBA L_{eq} at Medicine Rock or Gregory Mountain. Project noise impacts (when combined with ambient noise levels) at Gregory Mountain range from a low of 48 dBA L_{eq} to a high of 62 dBA L_{eq} . Project noise impacts to Medicine Rock when combined with existing ambient noise levels range from a low of 43.4 dBA L_{eq} to a high of 62.4 dBA L_{eq} . The noise analysis demonstrated that project noise would not create any significant noise impacts upon Gregory Mountain or Medicine Rock. The visual analysis determined that the project would not create significant view impacts to Gregory Mountain

or Medicine Rock. Accordingly, the objective analysis concluded the project would not have any significant impacts upon either Gregory Mountain or Medicine Rock.

Dust impacts to Medicine Rock and Gregory Mountain have been mitigated to a level of insignificance by requiring watering of all access roads, storage pile, and cleared areas every three hours during high wind periods to reduce the dust generated by vehicles. Landscaping will be installed between the landfill operations and Medicine Rock and Gregory Mountain to create a dust screen. To ensure that project noise impacts do not impact Gregory Mountain, noise levels at the ridgeline will be monitored during relocation of the SDG&E transmission towers. If noise levels exceed 62.5dBA L_{eq} at the ridgeline, the project will either build temporary noise barriers or berms between construction activities and the ridgeline or reduce the amount or size of construction equipment so as to reduce these noise levels to below 62.5 dBA L_{eq} .

Notwithstanding the objective analysis, Luiseño representatives have taken the position during the EIR process that impacts of the project upon Gregory Mountain and Medicine Rock would be significant and unmitigable. Their belief is based on their intangible use and relationship to Gregory Mountain and Medicine Rock. It is clear from the cultural report that much of the use of Gregory Mountain is secret. The use of Gregory Mountain for religious or spiritual purposes has not been documented. Members of the Luiseño have noted that the use of Gregory Mountain has a healing place may not be widespread among the Luiseño people (Mona Sespe, personal communication). A Native American cultural resource expert, Shipek, documented that access to Gregory Mountain has not been available to the Tribe for many years and it is impossible to specify the numbers who have prayed on the Mountain (Shipek 1989:8). Following interviews with the Luiseño people, the cultural resources report was able to document use of Gregory Mountain for religious or spiritual purposes only by Mona Sespe and her family. Given the limited documented use of Gregory Mountain for spiritual or religious purposes by the Luiseño and the fact they have not had access to Gregory Mountain for many years, the recent use of Gregory Mountain for spiritual or religious purposes has been very limited. The former trail to the top of the mountain has been obstructed for a number of years preventing passage to the top of the Mountain. Although Medicine Rock is considered an important cultural resource by the Luiseño, a search of ethnohistoric literature and the cultural resources report has not documented any significant use of Medicine Rock for religious or ceremonial purposes.

Although the objective analysis of impacts from the project did not support significant impacts to either Gregory Mountain or Medicine Rock and the recent use of either Gregory Mountain or Medicine Rock for religious or spiritual purposes has not been documented, the FEIR accepts the subjective position of the Luiseño that impacts of the project upon both Gregory Mountain and Medicine Rock are significant and unmitigable. Mitigation measures have been adopted to reduce, but not eliminate, these impacts wherever feasible. To partially mitigate the impacts to Gregory Mountain, the project has been required to either convey a permanent open space easement or to dedicate the western slopes and the top of Gregory Mountain to preserve the resource. The project will also dedicate an access easement that will grant the Pala Band of Mission Indians the right to walk or hike from the western boundary of the land owned by the Pala Band to the summit of Gregory Mountain. The project will also provide a cash contribution to the Pala Band of Mission of Indians to create a footpath to the top of Gregory Mountain. Construction of this footpath will be the responsibility of the Pala Band of Mission Indians and is not part of the project. The project will 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.

Because the project site is not part of the Pala Reservation and is in private ownership, plants having ethnobotanical significance located on the project site are not legally accessible to the Luiseño today. The ethnobotanical study identified 108 plants having potential ethnobotanical uses on the project site. To ensure that these ethnobotanical resources are preserved, a mitigation measure has been adopted requiring the creation of in-kind habitats on the project site that incorporates the ethnobotanical species identified into the mitigation plan for biological resources or the dedicated open space areas of the project site. Before the mitigation plans are finalized, the Pala Band of Mission Indians will have the opportunity to provide input concerning the location and selection of the specific ethnobotanical resources to be preserved.

As noted in the land use section of these findings, the Pala Band of Mission Indians have constructed a 187,300 square foot gaming and entertainment facility on the Pala Reservation located east of Gregory Mountain. The eastern portion of Gregory Mountain is located on the Pala Reservation. This project includes a casino, four restaurants, a coffee and ice cream bar, a 20,800 square foot multi-purpose room for entertainment events and a 350 seat entertainment bar and lounge. The gaming and entertainment facility is expected to attract about 5,000 patrons per day. The recently completed environmental assessment for the gaming and entertainment facility concludes the casino project will not significantly impact Gregory Mountain.

Although the ethnohistory and Native American resources section of the FEIR was not overturned by the Court or included in its writ, in order to provide up to date information the LEA notes that an additional expansion of the Pala facility was proposed in 2006 and later constructed. The project includes an expansion of the casino gaming area; new lounge, restroom and service space; the rearrangement or expansion of dining, entertainment and retail facilities; reconfiguring of the hotel and spa; addition of parking spaces; and expansion of administrative offices (RFEIR, Appendix A, p. 26, Attachment C3; 2009 Addendum, Appendix J, p. 3).

This analysis is consistent with the technical studies completed for the landfill project, which concluded the project would not create any significant impacts to Gregory Mountain or Medicine Rock.

Based on traditional technical measures of air quality, noise, visual impacts and dust, the project will not result in any significant impacts to either Gregory Mountain or Medicine Rock after mitigation. However, the Luiseño believe that impacts of the project on 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 are difficult to measure, by conventional performance standards. Given the lack of objective standards to determine whether there would be a significant effect on a culture's experience, the FEIR conservatively concludes that impacts of the project upon Gregory Mountain and Medicine Rock are significant and unmitigable. Since this finding of significance is based upon subjective judgment and not upon technical studies, there are no mitigation measures that can be adopted to reduce these impacts to a level of insignificance. Mitigation measures have been adopted to reduce the measurable impacts of the project upon these cultural resources to a level of insignificance.

In the event that Gregory Mountain or Medicine Rock is listed on the National Register of Historic Places in the future, they would be considered significant historical, cultural and ethnohistorical resources (RFEIR, p. 4.12-1). While this listing would not change the analysis of impacts in the FEIR, such potential future listing would create a significant and unavoidable impact on Gregory Mountain and Medicine Rock as historical, cultural and ethnohistorical resources (RFEIR, p. 4.12-1). The LEA has determined that the benefits of the project outweigh this and other significant and unavoidable impacts of the project and has adopted overriding findings in accordance with CEQA Guidelines §15093. These overriding findings are included in a separate statement of overriding considerations.

M. PUBLIC SERVICES AND UTILITY IMPACTS

1. Finding

[No change is made to this section.]

2. Facts in Support of Finding

[Changes to this section are underlined.]

The project will not need natural gas services or facilities during construction or operation. During construction, the use of electrical facilities will primarily be limited to the temporary use of electrical equipment and temporary use of power tools necessary for structural assembly. Accordingly, electrical demand during construction will be limited. During operations, electricity will be needed for the visitor center, the shop office, plant offices, maintenance office buildings, truck scales, fee booths and rock crusher. SDG&E has indicated that electric service to the project can be accommodated from the existing Pala substation. Utility connections for electric service would be undergrounded in the access road from SR 76 to the facilities area. The power will have to be stepped down for distribution to the project site. Due to the limited need for electricity, electrical demand required by the project is not significant. SDG&E has determined that the transmission lines can be relocated to the east without impacts to its transmission system. Therefore, no impacts to electrical facilities will occur from project implementation.

Pacific Bell provides telephone service to the Pala/Pauma Valley area. Currently, an existing main distribution cable runs the length of Pala Road from I-15 to Lake Henshaw. Construction activities planned for the project will not impact existing telephone service in the area. During operation of the project, an additional phone line will be required at each of the fee booths for computer links with the truck scales. Pacific Bell has indicated it will not have any difficulty providing telephone service to the project.

The FEIR, RFEIR and 2009 Addendum describe and analyze potential sources of water for use by the project.

The FEIR analyzed the use of up to 193 AFY or 205,000 gpd of alluvial groundwater pumped from the Pala Basin, and concluded that impacts to the provision of water service from such usage would be less than significant (FEIR, p. 4.15-4 – 4.15-11). The 2009 Addendum included an analysis as to which portions of the landfill site could use this alluvial groundwater, and estimated usage at various times during the construction, operation and closure of the landfill to be between 7.92 – 62.88 AFY, or 8,414 – 66,742

gpd. (2009 Addendum, p. 14, 17; Appendix G.) The 2009 Addendum determined that impacts to groundwater resources, noise or biological resources would be less than significant (2009 Addendum, p. 32). Impacts to air quality would be less than significant, except for regional air quality impacts previously disclosed (2009 Addendum, p. 32).

The RFEIR and 2009 Addendum also analyzed impacts from the use of percolating groundwater in the fractured bedrock formation underlying Gregory Canyon (RFEIR, p. 4.15-10 – 4.15-12). The RFEIR analyzed this resource, and determined it could supply up to 38,880 gpd, or 43.55 AFY (RFEIR, p. 4.15-12; Appendix C, p. 9 – 10). The RFEIR also analyzed the impact of construction and operation required to utilize this water resource (RFEIR, p. 4.15-20, Appendix D, p. 1, 8-9). The 2009 Addendum determined that impacts to groundwater resources, noise or biological resources from the use of this percolating groundwater would be less than significant (2009 Addendum, p. 32). Impacts to air quality would be less than significant, except for regional air quality impacts previously disclosed (2009 Addendum, p. 32).

The 2009 Addendum analyzed impacts from the use of percolating groundwater from three other watersheds within the landfill property outside of Gregory Canyon (2009 Addendum, p. 33-36). The 2009 Addendum analyzed this resource, and determined it could supply up to 20,349 gpd (2009 Addendum, p. 20). The 2009 Addendum also analyzed the impact of construction and operation required to utilize this water resource (2009 Addendum, p. 33-36). The 2009 Addendum determined that impacts to groundwater resources, noise or biological resources from the use of this percolating groundwater would be less than significant (2009 Addendum, p. 36). Impacts to air quality would be less than significant, except for regional air quality impacts previously disclosed (2009 Addendum, p. 36).

The RFEIR analyzed potential impacts from the use of recycled water on water quality (RFEIR, p. 4.15-27 – 4.15-30; Appendix C, p. 10-11). The RFEIR identified certain project design features, which included using recycled water on areas outside of the landfill footprint only where other sources of water were not available, and taking measures to protect the health of project personnel (RFEIR, p. 4.15-31 – 4.15-32). The RFEIR also included an analysis of water quality standards likely to be imposed by RWQCB, and the use of on-site water treatment facilities if needed to meet those standards (RFEIR, Appendix E, p. 007-10 – 007-12). Based on that analysis, the RFEIR determined that impacts to water quality from the use of recycled water would be less than significant (RFEIR, p. 4.15-32).

The RFEIR and 2009 Addendum analyzed potential impacts from the use of SGVWC recycled water on traffic, air quality (including both air toxics and health risk assessment), and noise (2009 Addendum, p. 37-49; Appendix L). The analysis considered impacts from both the construction of the SGVWC loading station and construction and operation of recycled water facilities at the landfill site (Appendix L, p. 1-3; 7-11; 12-14; 14-18). The RFEIR and the 2009 Addendum determined that impacts to groundwater resources, noise or biological resources from the use of recycled water would be less than significant (RFEIR, p. 4.15-32; 2009 Addendum, p. 52). Impacts to air quality would be less than significant, except for regional air quality impacts previously disclosed (2009 Addendum, p. 52).

The project components include a 20,000-gallon water tank that will be provided on-site near the ancillary facilities area, and an approximately 10,000-gallon water tank within the

Borrow/Stockpile B area (RFEIR, p. 3-4; 2009 Addendum, p. 20). The water tanks will be continuously refilled as water is used to maintain an adequate supply of stored water. Water stored in the water tank will be used for refuse disposal operations, which primarily include dust control and fire protection. The 20,000-gallon water tank and the 10,000-gallon water tank will provide adequate water storage for dust control and can also be utilized for fire protection. Storage capacity can be supplemented if needed with temporary water storage tanks (2009 Addendum, p. 9). The project components also include an additional 20,000-gallon tank for storage of recycled water with secondary containment, along with loading and unloading facilities for recycled water (RFEIR, p. 3-4). Drinking water will be supplied as bottled water for landfill personnel. A portable emergency showerhead will be provided outside the maintenance building. A portable chemical toilet will be located at the northern end of the ancillary facilities area. The landfill operator will contract with a sewage disposal service to remove all fluid from the chemical toilets for off-site treatment and disposal.

Sewer service is not necessary for the project. Portable chemical toilets will be used by workers at the landfill. The applicant will contract with a sewage disposal service to remove all fluid from the chemical toilets for off-site treatment and disposal. The leachate collection and removal system will be installed above the double composite liner system to collect and remove leachate that may be generated from the landfill. The secondary leak detection/drainage layer will collect and remove leachate that might escape the uppermost containment layers. Leachate will be transported to an off-site plant for treatment and disposal. Accordingly, the project will not create any significant wastewater needs or impacts.

The North County Fire Protection District (“NCFPD”) is the closest fire protection district to the project site. NCFPD’s Station No. 4 is located approximately five miles east of the landfill site. This station houses a paramedic engine company and a basic life support ambulance company. The Pala Reservation Fire Department will provide first responder services to emergency medical calls in the project area. Ambulance service will be provided by the NCFPD. The site is within close proximity to the Deer Springs Fire Protection District, the Yuma Municipal Water District, the Valley Center Fire Protection District, and the California Department of Forestry and Fire Protection in addition to the NCFPD. In the event of a fire at the project site, the primary response to the site would be the responsibility of the fire district within the immediate vicinity of the project site with additional fire protection service, if needed, through a County mutual aid agreement with other local fire districts. Resources will also exist on site to combat any on-site surface fire. Any surface fire that occurs would either be extinguished with on-site fire extinguishers or by isolating the burning materials from any surrounding flammable materials and covering with soil using a dozer. The nearby fire districts are capable of responding very quickly to a fire or other emergency at the landfill. No significant impacts to fire protection services will therefore occur.

Law enforcement services to the project site are provided by the San Diego County Sheriff’s Department. Traffic enforcement and accident investigation services at the site are provided by the California Highway Patrol. The project site is located in Beat 801 and is served by the Valley Center Substation located approximately 15 miles south of the project site. The average response time to emergency calls in Beat 801 is approximately 11 minutes. Site access would also be restricted and adequate security would be maintained during the construction period to prevent unlawful trespass, vandalism, or theft of construction materials or equipment. The San Diego County Sheriff’s Department has

indicated that the project will not create any significant impacts upon law enforcement services in the area.

The Bonsall Union School District and the Fallbrook Union High School District are responsible for providing educational services within the project site. The project will not create any significant impacts to existing school facilities since the 30-40 temporary construction jobs will be drawn from persons already residing in the San Diego area. The Bonsall Union School District initially expressed concern as to whether the landfill project would impact the safety of transporting students along SR 76. However, the subsequent schedule provided by the Bonsall Union School District indicated there was only one school bus stop on SR 76 near the Verboom Dairy, located on the project site. This used to serve the existing homes (now vacant) within the site boundary. However, these existing homes will be removed as part of the project. The bus stop that currently serves these residences will no longer be needed and will be eliminated. No significant impacts to school facilities were identified.

Energy usage during construction of the project will result primarily from the heavy equipment and vehicular use of non-renewable fossil fuels. Electrical consumption will be very low because the heavy-duty construction and grading equipment are fueled by gasoline or diesel fuel. During operation of the project, electricity would be used for lighting, communication systems, computers, heating and cooling, small motors, security systems, and occasional rock crushing. Conservation measures such as energy efficient on-site equipment, regular vehicle/equipment maintenance, promotion of recycling programs, time controlled security lighting and low energy lighting will be implemented as part of the operations procedures. Because the project is more centrally located, implementation of the project will save approximately 100,000 gallons of fuel annually. This is a substantial environmental benefit of the project. Since no significant energy impacts will occur, no mitigation is necessary.

The analysis demonstrated that the project would not adversely impact any public services or utilities in the area. Accordingly, no mitigation is required.

N. SOCIOECONOMIC IMPACTS

[No change is made to this section.]

O. VISUAL IMPACTS

[No change is made to this section.]

P. HUMAN HEALTH AND SAFETY IMPACTS

[No change is made to this section.]

Q. CUMULATIVE IMPACTS

1. Findings

[Changes to this section are underlined.]

Pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in, or incorporated into the project that will mitigate all cumulative impacts to a level of insignificance other than cumulative traffic impacts, cumulative noise impacts, and cumulative air quality impacts. Cumulative traffic impacts to I-15, SR 76, or the intersections of SR 76 with Highway 395 and I-15 will be significant and unavoidable. Cumulative noise impacts caused by traffic on SR 76, and on Camino del Sur, Camino del Norte and I-15 (to the extent applicable) will be significant and unavoidable for residences located within the 60 dBA CNEL contour. However, these homes are currently experiencing noise levels exceeding the County's standard of 60 CNEL. Cumulative PM₁₀ and NO_x impacts caused by build out of the region are also significant and unavoidable. All other cumulative impacts are not significant with the design features and mitigation measures included as part of the project.

The LEA finds and determines that all feasible mitigation measures to reduce these significant and unavoidable cumulative traffic, noise from traffic, and air quality impacts have been adopted. The LEA has determined that the benefits of the project outweigh this and other significant and unavoidable impacts of the project and has adopted overriding findings in accordance with CEQA Guidelines §15093. These overriding findings are included in a separate statement of overriding considerations.

The finding in the RFEIR of a cumulatively significant impact to the segment of I-15 between Pomerado Road and Carmel Mountain Road may no longer be applicable since the project will not be trucking recycled water from OWMD to the landfill site.

2. Facts in Support of Findings

[Changes to this section are underlined.]

The FEIR considered cumulative impacts based both upon build-out of the County of San Diego and based upon an evaluation of reasonably foreseeable future projects surrounding the project site, which have the ability to contribute cumulative impacts. Cumulative traffic impacts were evaluated based upon build-out of the region as projected in the San Diego Association of Governments' (SANDAG) travel forecast and the adopted Regional Transportation Plan for the County of San Diego. Cumulative air quality impacts were analyzed assuming build-out of the San Diego Air Basin as projected by SANDAG's Regional Growth Management Plan. Cumulative impacts associated with geology and soils, hydrogeology, and surface hydrology was supplemented with review of existing map information such as the San Diego Soils Series, and Hydrologic Subunits and SANDAG publications. Cumulative biology impacts were considered on a regional basis based upon the County's open space planning efforts for the Multiple Species Conservation Program.

In addition to the general level of analysis afforded by review of cumulative impacts at the regional level, a cumulative analysis was completed at the local level by identifying all reasonably foreseeable future projects that surround the project site. A detailed review of County records identified 14 planned and potentially future projects surrounding the project site, which were evaluated for cumulative impacts in combination with the project. Many of these projects were evaluated although they did not have an approval pending at the time the notice of preparation for the project was issued. The CEQA Guidelines require projects to evaluate only the cumulative impacts of projects that had an application for approval pending when the NOP was released. (CEQA Guidelines §15130(b)(1)(B)(2).) A map showing the projects identified and their locations is contained on Exhibit 5-1 of the FEIR.

The 14 previously identified projects having the potential to contribute cumulative impacts were identified as the Fenton Sand Mine, the Palomar Aggregates Quarry, the Calmat Pala Aggregate Mine, future Pipeline No. 6 to be constructed by the Metropolitan Water District and the SDCWA, the Pala Gaming Facility, Sycamore Ranch, a gas station to be located at the I-15 and SR 76 interchange, the I-15 and SR 76 Master Specific Plan, the Campus Park Specific Plan, the Lake Rancho Viejo Specific Plan, Brook Hills, Dulin Ranch, future improvements, realignment and widening of SR 76 a distance of 15.2 miles, and the Pauma Valley Fruit Packing Plant. The I-15 and SR 76 Master Specific Plan was subsequently dropped from the cumulative analysis since no processing had occurred on this Master Plan. Although one commentator suggested that the related projects list was not inclusive, a detailed subsequent review of County records did not identify any additional approved or reasonably foreseeable future projects capable of contributing cumulative impacts that had not been included in the cumulative impact section of the FEIR.

The list of cumulative projects was updated in the RFEIR. Among the new major projects identified were an expansion to the Pala gaming facility, and the Meadow Wood, Passerelle, Lorinda, and Valley Center Town Square projects (RFEIR, p. 4.5-20 – 4.5-21; Appendix A, p. 26-31; C1 – C20).

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, and there is no information from which to calculate the increase in cumulative impacts from this project (RFEIR, p. 4.5-21). For this reason, the Warner Ranch project has not been considered in the analysis of long term cumulative traffic impacts (RFEIR, p. 4.5-21).

Long-term cumulative traffic impacts in the area of the landfill site were analyzed in the RFEIR using 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 (RFEIR, p. 4.5-26).

The cumulative impact section contained a detailed evaluation and analysis of potential cumulative impacts associated with the future construction of Pipeline No. 6 by the Metropolitan Water District and the SDCWA. However, the SDCWA has not presently authorized the construction of Pipeline No. 6 and no data has been provided by the SDCWA as to when this construction may occur. Discussions occurred with the SDCWA and Metropolitan Water District to design the project in a manner that would be compatible with the future construction of Pipeline No. 6. The analysis of cumulative impacts from Pipeline No. 6 in combination with the project was carried through each environmental impact section of the cumulative analysis.

Where potential significant effects have been identified, measures are presented which reduce direct impacts to below a level of significance. In areas where impacts cannot be reduced to below a level of significance with the implementation of mitigation measures, the FEIR presents alternatives that avoid or substantially lessen those impacts. As noted in the land use section of this document, the project will not create any significant land use impacts since the project fully complies with all goals and policies of the County General Plan and contains a Solid Waste General Plan and Zoning Designation. An examination of other potential future projects in the area indicated they are also consistent with the County General Plan and with their applicable Community Plans and zoning ordinances. No

significant land use impacts were identified from a review of environmental documents for the other projects listed in the cumulative impact section. None of the identified projects will physically divide an established community. As noted in the land use section of these findings, the area surrounding the project site is a mixed-use area that includes a number of intensive existing and planned industrial and commercial facilities and scattered residential home sites with some secondary agricultural uses. Developments approved by the County in this area are consistent with the existing mixed-use character of the area. Planned development in the area includes further residential home sites, and additional commercial and industrial facilities in the area (the Pala Gaming Facility and the Palomar Aggregates Quarry). The project is not in conflict with any habitat conservation plans or natural community conservation plans that have been adopted in the area. Consequently, the project does not contribute to a cumulative land use impact in this area. A review of other planned projects in the area did not identify any conflicts with any habitat conservation plans or natural community conservation plans in the area. Accordingly, the project will not create any cumulatively significant land use impacts.

No significant impacts to geology and soils will occur by implementation of the project in combination with other feasible development in the area. As noted in the geology and soils section of these findings, the project does not create any significant geology or soils impacts. A review of other projects in the area did not identify any cumulatively significant geology or soils impacts that will occur. The County's grading ordinance and NPDES requires all projects to include erosion control measures to avoid the erosion of soils and sediment transport. These erosion control measures must be in place prior to approval of the grading plan. Erosion control measures for the project have been included as part of the project design features. As noted previously, the perimeter drainage channel and the sedimentation basins included as part of the project will prevent erosion from occurring off-site. Therefore, no cumulatively significant geology or soils impacts will occur.

The cumulative impact analysis also evaluated cumulative groundwater impacts of the project in combination with other development in the area. For the reasons noted in the hydrogeology and public service and utility sections of these findings, the project will not create any significant groundwater impacts. A review of other planned projects in the area did not identify any significant hydrogeology impacts from any of the anticipated future projects in the area.

No cumulatively significant surface hydrology impacts will occur from implementation of the project in combination with other anticipated development in the area. The project includes detention/desilting basins, revegetation of exposed areas, and a perimeter drainage system designed to control surface runoff and reduce potential surface water impacts to a level of insignificance. The drainage system included as part of the project will capture flow from a 100-year, 24-hour flood in combination with a simultaneous rupture of existing Pipelines 1 & 2 and future Pipeline No. 6. Therefore, no significant surface impacts from the project will occur. The County grading ordinance and NPDES requires that mitigation measures be included in all projects in the area to reduce impacts to surface water quality to below a level of significance. No significant surface water impacts were identified from a review of other projects that may occur in the area. Since the drainage system included as part of the project will capture surface flow crossing the project site and will direct this surface flow to the on-site desilting basins for testing the potential for a cumulatively significant surface flow or surface contamination caused by the project in combination with other projects in the area is not significant. Accordingly, no cumulatively significant surface water impacts will occur from the project in combination with other anticipated development in the area.

The cumulative traffic analysis completed for the project evaluated cumulative traffic impacts in combination with other anticipated future development in the area, the year 2020 buildout condition, and in the year 2030 (RFEIR, p. 4.5-20 – 4.5-28). This analysis is contained in the 2006 traffic report (RFEIR, Appendix A, p. 43-58).

The 2006 traffic report and RFEIR analyzed near term existing plus other development plus project scenario in the vicinity of the landfill property. As shown in Table 4.5-12a of the RFEIR (RFEIR, p. 4.5-24), all intersections at SR 76 and I-15 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 LOS F with and without the project under near term operating conditions. As shown in Table 4.5-12b of the RFEIR (RFEIR, p. 4.5-24), 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 of the RFEIR (RFEIR, p. 4.5-25), 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 of the RFEIR (RFEIR, p. 4.5-25), 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.

The 2006 traffic report indicated that traffic on the I-15 between Carmel Mountain Road and Pomerado Road will continue to operate at an unacceptable level with or without the project in the 2020 buildout condition (RFEIR, Appendix A, Table 30, p. 69).

The RFEIR finding of a cumulatively significant traffic impact to the segment of I-15 between Pomerado Road and Carmel Mountain Road may no longer be applicable since the project will not be trucking recycled water from OWMD to the landfill site. The recycled water truck trips analyzed in the 2006 traffic study will not be occurring since the recycled water contract between the applicant and OMWD has been invalidated and will not be pursued further (2009 Addendum, p. 1-2).

The 2006 traffic report and RFEIR analyzed the year 2030 conditions in the vicinity of the landfill property. Year 2030 traffic conditions on freeway ramps, I-15 and the SR 76 and I-15 intersections are shown on Tables 4.15-13a (RFEIR, p. 4.5-27), 4.5-13b (RFEIR, p. 4.5-27) and 4.15-13c (RFEIR, p. 4.5-28) of the RFEIR. 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 of the RFEIR (RFEIR, p. 4.5-28) 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.

The 2009 traffic report determined that cumulative traffic impacts arising from recycled water traffic between the SGVWC loading facility and the landfill site would be less than significant (2009 Addendum, Appendix M, p. 18-21).

Noise testing and a noise assessment completed for the project in the FEIR, as updated in Appendix D of the RFEIR, demonstrated the project would not create any significant noise

impacts in the vicinity of the landfill property with the exception of traffic noise impacts to homes located on SR 76 between I-15 and east of the landfill site, which currently experience noise impacts exceeding the County's standard of 60 dBA CNEL (RFEIR, Appendix D, p. 13). A cumulative noise analysis was completed based upon anticipated conditions in the year 2030. This analysis showed that homes located on SR 76 between I-15 and east of the landfill site would continue to experience noise levels in the year 2030 exceeding the County standard of 60 dBA CNEL with or without the project (RFEIR, Appendix D, p. 17-20). Cumulatively significant traffic related noise impacts to existing residences on SR 76 would be considered by Caltrans during design of the proposed improvements to that highway. Although a mitigation measure requiring a fair share contribution by the project toward construction of a sound wall has been included as part of the requirements for the project, since it is not guaranteed that Caltrans will permit installation of the sound wall, cumulative noise impacts from traffic on SR 76 to homes remains significant and unavoidable (RFEIR, p. 4.6-16 – 4.6-17).

A cumulative noise analysis for Camino del Sur, Camino del Norte and I-15 along the haul route between OMWD and the landfill site was completed based upon anticipated conditions in the 2020 buildout condition (RFEIR, p. 4.6-13). This analysis showed that these homes would continue to experience noise levels exceeding the County standard of 60 dBA CNEL (RFEIR, p. 4.6-13).

The RFEIR finding of a cumulatively significant noise impact for Camino del Sur, Camino del Norte and I-15 along the haul route between OMWD and the landfill site may no longer be applicable since the project will not be trucking recycled water from OWMD to the landfill site. The recycled water truck trips analyzed in the 2006 traffic study will not be occurring since the recycled water contract between the applicant and OMWD has been invalidated and will not be pursued further (2009 Addendum, p. 1-2).

Cumulative noise impacts were analyzed in Appendix L of the 2009 Addendum, which concluded that impacts from the provision of recycled water from SGVWC would not result in any significant cumulative noise impacts not previously disclosed. (2009 Addendum, Appendix L, p. 18.)

Cumulative air quality impacts were analyzed assuming complete build-out of the entire San Diego Air Basin based upon build-out conditions identified by the San Diego Air Pollution Control District in the San Diego Regional Air Quality Strategy ("RAQS"). The RAQS forecasts future air quality conditions based on population growth as projected by the San Diego Association of Governments. This resulted in a regional evaluation of cumulative air quality impacts. The cumulative air impact analysis demonstrated that project-generated emissions would contribute incrementally to the San Diego Air Basin's inability to achieve air quality standards for PM₁₀ and NO_x. Implementation of the tactics presented in the RAQS are directed at mitigating these regionally significant air quality impacts. The effectiveness of these measures are dependent upon sound land planning, emission reductions from more efficient automobiles and trip reducing techniques and other tactics. Because the success of the RAQS is unknown, and relies on factors outside the control of an individual project, the project's incremental contribution to PM₁₀ and NO_x, when considered in combination with other projects in the area and build-out of the region, is considered cumulatively significant and unmitigable. No mitigation measures beyond those already adopted in the RAQS exist to reduce these cumulative air quality impacts. While these strategies adopted in the RAQS may reduce these cumulatively significant air impacts to a level of insignificance in the future, to ensure that the worst-case condition is

considered, the FEIR has concluded that cumulative air quality impacts are significant and unmitigable.

Potential cumulative impacts to air quality in the vicinity of the landfill property and the SGVWC site were analyzed in Appendix D of the RFEIR and Appendix L of the 2009 Addendum. The environmental review concluded that construction and operation of recycled water facilities at the landfill site, construction of wells at the three additional watersheds where pumping of percolating groundwater would occur, construction of water pipelines, and construction of an additional water storage tank within the Borrow/Stockpile B area would contribute to the significant and unavoidable cumulative air quality impacts previously disclosed in the FEIR, but that cumulative impacts at the SGVWC loading station would be less than significant (RFEIR, Appendix D, p. 7-8; 2009 Addendum, Appendix L, p. 11).

Cumulative impacts to agricultural resources in the area were considered as a result of the project in combination with other anticipated development in the area. The project itself will not create any significant agricultural impacts. The agricultural analysis showed that the 76 acres of prime agricultural soils on the project site of which the project would directly impact 7.4 acres. The proposed project in combination with related projects would result in a cumulative loss of .28% of this total. This is not a cumulatively significant impact to agricultural resources.

In the early 1990s biological surveys were completed to evaluate both sensitive habitat and species located throughout San Diego County. The Habitat Conservation Program known as Multiple Species Conservation Plans ("MSCP") have been developed for the City of San Diego, Northern San Diego County and the balance of the County. These plans identify sensitive and protected biological resources throughout the County and have evaluated the changes in these sensitive habitats during the 1990s. The purpose of the MSCP is to provide for long-term protection of sensitive habitats through an open space design, which includes a "block" of connected open space. Once implemented, the MSCP would compensate for the incremental loss of sensitive habitats on the regional level. Implementation of regional open space plans and required mitigation procedures developed in conjunction with the MSCP plans would ensure that cumulative impacts to biological resources will be mitigated to below a level of significance. The MSCP for the unincorporated North County Sub-area has not yet been approved by the County. However, biological mapping that has been completed provides a base for evaluating cumulatively significant biological impacts. In addition, biological data included as part of the MSCP were examined to evaluate cumulative biological impacts caused by the project in combination with other development in the area.

Biological mapping completed for purposes of the FEIR indicates the San Diego region still contains over 2.1 million acres of habitat which is either important or used by sensitive or protected species. The remaining habitats throughout San Diego County and the incremental change on shown on Table 5.2-2 of the FEIR. Table 5.2-3 included in the FEIR shows the project's incremental impact to the protected habitats. Implementation of the project will have no impact upon woodland, freshwater wetlands, or riparian forests. Implementation of the project will impact 0.0009% of available coastal sage scrub habitat, 0.00003% of chaparral, .0001% of grasslands, 0.003% of riparian woodland, and 0.0001% of riparian scrub. An extensive amount of open space and native habitat remains in the rural area surrounding the Gregory Canyon landfill. Nonetheless, implementation of the

project in combination with other anticipated development in the area will incrementally cause a loss of habitat within the San Luis Rey River riparian corridor.

An updated analysis of cumulative impacts to biological resources was included in Appendix B to the RFEIR, and concluded that while San Diego County has undergone substantial development in recent years, the amount of project impacts on vegetation communities remains minimal in comparison to the current extent of those vegetation communities within the County (RFEIR, Appendix B, p. 6-1).

Removal of upland habitat on the hillsides surrounding the river corridor could also lead to cumulative affects on sensitive species depending on the coastal sage scrub and chaparral communities nearby. The combined projects would also contribute incrementally to the loss of foraging habitat in the project area. To mitigate the project's contribution to these cumulative biological impacts to a level of less than significant, the project has been required to implement a habitat enhancement plan (MM 4.9-18). This enhancement plan will restore and enhance approximately one mile of the riparian corridor in the San Luis Rey River on site. The restoration effort will involve the removal of the former Verboom and Lucio Dairies and removal of most structures, animals, and manure buildup on site over thirty years of agricultural use. Improvements in hydrology would be made to encourage the re-establishment of riparian resources formerly filled by the agricultural operations. All upland and dry riparian areas would be hand-seeded and regular weed control would be implemented. The habitat enhancement plan will include the creation of 24.1 acres of wetland habitat and 131.4 acres of upland habitat. In addition, 57.1 acres of on-site existing riparian habitats in the San Luis Rey River on site will be preserved in dedicated open space and enhanced through the removal of invasive, exotic plant species (RFEIR, p. 4.9-17; MM 4.9-18). After implementation of the habitat enhancement plan, one mile of the San Luis Rey River and adjacent upland areas totaling approximately 212.6 acres will be improved by habitat creation and enhancement (RFEIR, p. 4.9-17; MM 4.9-18). These activities will fully mitigate the project's contribution to cumulative biological impacts to a level of less than significant (RFEIR, p. 4.9-27). The habitat enhancement plan will provide additional habitat on the landfill property for the protected arroyo toad, least Bell's vireo, and southwestern willow flycatcher (RFEIR, p. 4.9-14; Appendix B, p. 4-1 – 4-2). See Section II.I for additional discussion regarding the implementation of the Habitat Enhancement Plan as mitigation for cumulative impacts to biological resources. This strategy for mitigating cumulative impacts to biological resources has been upheld by the trial court and the Court of Appeal.

Cumulative impacts to paleontological resources were also evaluated. The analysis completed for the project site indicated it was very unlikely that resources having paleontological significance would be discovered on the project site. Nonetheless, mitigation measures have been adopted which ensure that if paleontological resources are encountered during grading activities they will be recovered. Therefore, the project will not create any significant impacts to paleontological resources. A review of other anticipated development in the area did not identify any significant cumulative impacts to paleontological resources caused by any of these projects. Accordingly, no cumulatively significant impacts to paleontological resources will occur.

Project-specific impacts to archeological resources have been fully mitigated by the mitigation measures that have been adopted. A review of other anticipated projects in the area did not identify any cumulatively significant impacts to archeological resources. Accordingly, no cumulative impacts to archeological resources will occur.

As noted previously, the two cultural resources of significance in the project area are Gregory Mountain and Medicine Rock. The western portion of Gregory Mountain is located on the eastern boundary of the project site. Medicine Rock is located 1400 feet from the ancillary facilities area on property owned by Fenton. A sand mining and gravel operation has been conducted on the Fenton property for a number of years. Mitigation measures have been adopted as part of the project to ensure that dust from the project does not impact Medicine Rock or Gregory Mountain. Although an objective analysis of project impacts upon Gregory Mountain and Medicine Rock did not establish that the project would create any significant impacts to either of these cultural resources, Native Americans believe the project will interfere with their spiritual use of Gregory Mountain and Medicine Rock. Although Native American use of Medicine Rock or Gregory Mountain for spiritual or religious purposes has not been documented, the FEIR accepts the subjective opinion of Native Americans that the project will have a significant and unmitigable impact upon both Gregory Mountain and Medicine Rock.

As noted previously, the project will create a significant and unmitigable visual impact caused by the landfill footprint. (FEIR pg. 4.13-69.) Implementation of the proposed project, when considered with the development of other projects would contribute to a change in the visual character of the area. Section 4.13.1.4 provides a summary of the applicable plans and policies that provide direction to minimizing the visual effects of development. Adherence to county goals and policies would ensure that the cumulative effects of transitioning from rural development to other more suburban land uses would not result in significant cumulative impacts to aesthetics and the visual environment. (FEIR 5-45.)

The project will not result in any adverse socioeconomic impacts in the project area or the region. The project does not alter the location, distribution, density or growth rate plan for the project area and will not create a significant demand for housing or public services. Since the project will not create any adverse socioeconomic impacts in the area, no cumulative socioeconomic impacts will occur.

The project will not create any significant impacts to any public facilities or services in the area. Service providers have confirmed that the project can be accommodated and many of these services are located on or near the project site. Other development approved in the area has been required to provide the necessary public facilities and services to accommodate that development. Thus, no cumulatively significant impacts to public facilities or services in the area will occur.

The project includes design features and mitigation measures that mitigate all potential impacts to human health and safety to a level of insignificance. The project will not add to any known human health or safety impacts in the project area. A review of other anticipated development in the area did not identify any cumulatively significant impacts to public health or safety in the area. Accordingly, no cumulative impacts to public health or safety will occur.

With implementation of the mitigation measures contained in the FEIR and RFEIR, no significant cumulative impacts will occur except cumulative traffic, noise and air quality impacts that are significant and unmitigable.

III. DISCUSSION OF ALTERNATIVES

A. RATIONALE FOR SELECTION OF ALTERNATIVES

[No change is made to this section.]

B. NO PROJECT ALTERNATIVE

1. Facts in Support of Findings

[Changes to this section are underlined.]

The No Project Alternative would allow the existing uses on the site to remain and would not involve the construction of a new landfill at Gregory Canyon. The existing agricultural use at the Verboom Dairy might have continued on site but has already been relocated. The undeveloped portion of the site would continue to serve as passive open space. With the no project alternative, solid waste from northern San Diego County would continue to be disposed of at existing landfills in San Diego County as well as Orange County and other out of County disposal facilities.

No impacts to geology and soils would occur from the No Project Alternative. Impacts to hydrogeologic resources would not occur with the No Project Alternative. However, chemical fertilizers, pesticides and animal waste from agricultural uses, if continued, could adversely impact the groundwater quality. No surface hydrology impacts would occur from the No Project Alternative. However, chemical fertilizers, pesticides, and animal waste from agricultural uses, if continued, could adversely impact the surface water quality.

The No Project Alternative would eliminate the 2085 daily trips generated by the project. However, traffic associated with the continued disposal of municipal solid waste in and out of San Diego County would occur. The traffic analysis completed for the No Project Alternative indicated that the No Project Alternative would result in an additional 4,304,458 vehicle miles traveled (VMT) annually to dispose of North County waste resulting in significant and unmitigable traffic impacts. Although noise impacts from the project would not occur, significant and unmitigable noise impacts to the cluster of homes located on SR 76 would continue to occur resulting in cumulatively significant and unmitigable noise impacts. Significant and unmitigable PM₁₀ and No_x impacts caused by the project at a local level would not occur. However, due to the 4,304,458 VMT each year as part of the No Project Alternative, regional air emissions would be cumulatively significant and unmitigable.

The No Project Alternative would eliminate all significant impacts, both mitigable and unmitigable, related to the construction use of the site as a landfill. Significant cumulative noise impacts to residences from traffic on SR 76 would still occur in the future as a result of planned development in the area. In addition, cumulative traffic impacts to SR 76, I-15, ramps or intersections would still occur (RFEIR, p. 4.5-39). In the long term, and on a regional basis this alternative would result in increased environmental impacts on regional traffic, regional air quality, and regional energy conservation. (FEIR pg. 6-17, 6-18.)

2. Findings on No Project Alternative

[No change is made to this section.]

C. SDG&E WESTERN ALIGNMENT ALTERNATIVE

[No change is made to this section.]

D. REDUCED VISUAL IMPACTS ALTERNATIVE

[No change is made to this section.]

E. REDUCED AIR EMISSIONS ALTERNATIVE

[No change is made to this section.]

F. MERRIAM MOUNTAIN ALTERNATIVE SITE

[No change is made to this section.]

G. ASPEN ROAD ALTERNATIVE

[No change is made to this section.]

H. LONG TERM TRANSPORT OF WASTE TO SITES OUTSIDE SAN DIEGO COUNTY

[No change is made to this section.]

I. WASTE REDUCTION AND RECYCLING ALTERNATIVE

[No change is made to this section.]

J. PRESCRIPTIVE DESIGN ALTERNATIVES

1. Facts in Support of Prescriptive Design Alternative

[Changes to this section are underlined.]

The FEIR also considered two separate prescriptive design alternatives. One of these alternatives included a single liner for the proposed project and the second alternative considered a double liner. Both of these alternatives meet all of the regulatory standards of the RWQCB under Title 27 CCR. The two prescriptive design alternatives would situate the waste containment unit five feet above the highest anticipated groundwater level. The lowest depths of excavation for the prescriptive design alternatives ranges from between 400 feet above mean sea level at the northern toe of excavation to approximately 700 feet amsl at the southern toe. The quantity of excavated rock and soil material would be about 7.93 million cubic yards of which 1.48 mcy will be used in the formation of the landfill bottom prior to placement of the containment system. The finished elevations for the prescriptive design alternatives would be the same as the proposed project. The overall capacity of the landfill would be reduced from about 33.4 million tons to 31 million tons and would reduce the estimated site life from approximately 30 to 28 years.

The prescriptive design alternative with a single liner system would have impacts similar to the proposed project in all impact areas. This alternative would not create any new significant environmental impacts not previously analyzed in the RDEIR or require any new mitigation measures not analyzed in the RDEIR. Overall, environmental impacts of the prescriptive design alternative with a single liner system would be very similar to the proposed project.

A prescriptive design with a double liner alternative would include a double liner system instead of the single liner system included as part of the proposed project. A double liner system provides greater protection of groundwater resources in the area since it includes additional layers as part of the liner system making it less likely that a hole will develop in the liner system allowing the transport of leachate to groundwater in the area. A double liner composite system exceeds Regional Board requirements for a non-hazardous waste landfill such as the proposed project and is typically required only for hazardous waste landfills. The prescriptive design alternative with a double liner alternative allows the Regional Board to select from among two separate double liner systems discussed in Section 6.7.2 of the FEIR. The prescriptive design with a double liner system would result in less truck traffic than the proposed project during both the initial and periodic construction periods. During the initial construction period, this alternative would reduce daily truck trips by 108 truck trips per day on and off-site. During periodic construction, this alternative would result in the excavation of 3.1 million cubic yards less of soil and rock than the proposed project. This would reduce daily truck trips associated with excavation activities by 104 truck trips a day. Noise impacts associated with the proposed project would be reduced with this alternative due to the elimination of 3.1 million cubic yards of excavation activities with associated excavation equipment and less blasting due to the reduced excavation. This alternative would reduce construction and operation noise, construction traffic and groundwater impacts of the proposed project when compared with the project. All other impacts of this alternative are similar to the proposed project. This alternative would provide additional protection to groundwater resources in the area by further minimizing the likelihood of groundwater contamination by leachate.

As indicated in Section 3 of the RFEIR, the double liner design has been modified to include an additional drainage layer and an additional HDPE geomembrane. This type of containment system is known as a double composite liner system. 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 (RFEIR, p. 3-1; 3-3). In addition, the liner system will include the leachate collection and removal system, a secondary leak detection and leachate removal system, and an underdrain system (RFEIR, p. 3-1). Exhibit 3.8b of the RFEIR provides a detailed cross-section of the proposed composite liner system for the project (RFEIR, p. 3-3).

Potential impacts from this revised design were analyzed in Appendix D of the RFEIR. Based on that analysis, impacts from construction of this revised design would be less than significant (RFEIR, Appendix D, p. 1-2; 8-9). In addition, this revised design would provide even greater protection for groundwater resources (RFEIR, Appendix E, p. 035-2 – 035-4).

2. Findings on the Prescriptive Design Alternative (Double Composite Liner)

[No change is made to this section.]

K. ALTERNATIVES CONSIDERED BUT REJECTED

[No change is made to this section.]

1. Reconfiguration of Landfill Footprint in Alternative On-Site Location.

[No change is made to this section.]

2. Residential Development of the Site

[No change is made to this section.]

3. Other Landfill Locations in Northern San Diego County

[No change is made to this section.]

4. Composting

[No change is made to this section.]

5. Refuse to Energy

[No change is made to this section.]

6. Waste-to-Methanol Facility

[No change is made to this section.]

L. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

[No change is made to this section.]

IV. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL IMPACTS

A. Findings

[No change is made to this section.]

B. Facts in Support of Findings

[Changes to this section are underlined.]

As noted previously, the project site consists of two former dairy operations with ancillary residential housing and vacant land. The project will result in the use of approximately 308 acres of the property site for the landfill and ancillary facilities. At least 1313 acres of the project site will be dedicated as open space for the long term preservation of sensitive habitat and species. Upon closure, the entire landfill site will remain as open space.

The project will result in the commitment of energy and water resources as the result of the construction, operation and maintenance of the proposed landfill facility (FEIR, p. 7-1). The project will need up to 62.9 AFY or 66,785 gpd as an annualized daily average and 110,135 gpd on the maximum day of water for operation and closure (2009 Addendum, Appendix E). Water needs for the project can be met through a combination of riparian underflow, percolating groundwater, and recycled water provided by SGVWC (2009 Addendum, p. 22-24). The 2009 Addendum determined a likelihood that on-site sources alone would be sufficient to accommodate construction, operation, and closure of the project (2009 Addendum, p. 22). Recycled water provided by SGVWC, at up to 75.4 AFY or 80,000 gpd, would provide an additional resource to meet water needs for the project (2009 Addendum, p. 24).

Implementation of the proposed project will result in an alteration of the existing topographic character of the landforms on the project site. While mitigation measures have been adopted to reduce this visual impact, the mitigation measures have not reduced the visual impact caused by viewing the landfill footprint to a level of insignificance. Consumption of soil resources will occur in conjunction with the project as a byproduct of the excavation necessary to create the landfill footprint and ancillary facilities. Rock excavated on the project site will be utilized for cover and any excess will be hauled off-site for sale. Oil and gas products will be necessary to operate both the fixed and mobile construction equipment including bulldozers, graders, trucks, dump trucks and generators associated with project construction and operations. Although the project's use of these energy sources is not significant, the project will still consume these energy sources.

The project will result in direct and indirect impacts to biological resources as discussed in more detail in the biological impacts section of these findings. However, all biological impacts of the project have been mitigated to a level of insignificance as the result of design features and mitigation measures adopted as part of the project. Mitigation measures included as part of the project and the Habitat Enhancement Plan (MM 4.9-18) will result in a net long-term gain of riparian habitat and upland terrace habitat that can be utilized by the protected arroyo toad, least Bell's vireo, and southwestern willow flycatcher (RFEIR, p. 4.9-14; Appendix B, p. 4-1 – 4-2). Nonetheless, the project will result in irreversible changes to biological resources on the project site.

No paleontological resources were identified or likely to occur on the project site. The project will directly impact two resources having historic significance, the Higgins Family Cemetery and a few artifacts found at the former James P. Higgins Homestead site. Mitigation measures have been adopted to mitigate the potentially significant impacts to the Higgins Family Cemetery and artifacts found at the former Higgins Homestead to a level of insignificance. Nonetheless, the project will alter the location of these resources.

Although an objective evaluation of project impacts upon the Native American resources of Gregory Mountain and Medicine Rock did not document that the project would create any significant impacts to these resources, the FEIR and RFEIR have concluded the project will create significant and unmitigable impacts to these resources based upon the subjective judgment of the Luiseño. Mitigation measures have been adopted to reduce, but not eliminate, these significant and unmitigable impacts.

V. GROWTH-INDUCING IMPACTS

[No change is made to this section.]

VI. CHANGES TO THE PROJECT OR THE CIRCUMSTANCES UNDER WHICH THE PROJECT IS UNDERTAKEN

In order to undertake the analysis required under CEQA Guidelines § 15162, the LEA is required to identify and analyze all changes to the project or the circumstances under which the project is undertaken that have not been previously disclosed or analyzed in the CEQA Documents. For purposes of this review, LEA will consider changes to the project or the circumstances under which the project is undertaken subsequent to certification of the RFEIR on May 31, 2007.

In accordance with CEQA Guidelines § 15162, the LEA is required to make one of the following determinations:

- No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3); OR
- Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous negative declaration or EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines § 15162(a)(3). Therefore, a Subsequent or Supplemental EIR is required.

In order to give a degree of finality to EIR documentation, Section 15162 of the CEQA Guidelines requires that a Subsequent of Supplemental EIR need only be prepared if:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete shows any of the following:
 - a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration,

b. Significant effects previously examined will be substantially more severe than shown in the previous EIR,

c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative, or

d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

In the event these conditions arise, but only minor additions or changes to the previous EIR are necessary, a Supplemental EIR may be appropriate, pursuant to CEQA Guidelines Section 15163.

LEA's review of the 2008 Addendum, 2009 Addendum and 2010 Addendum disclosed a variety of changes to the project or the circumstances under which the project is undertaken, including:

- The project would not be utilizing recycled water purchased and transported from OMWD, as the result of a decision by the California Court of Appeal, Fourth Appellate District, and subsequent decisions by OWMD.
- The project would be utilizing riparian underflow from the San Luis Rey River alluvial basin to provide some of the water required for construction, operation and closure.
- In addition to percolating groundwater from the Gregory Canyon watershed, the project would be utilizing percolating groundwater from three other watersheds of the landfill property to provide some the water required for construction, operation and closure.
- The project would involve the construction of wells and pipelines to convey the riparian underflow and percolating groundwater to the portions of the landfill property where construction and operation would occur.
- The project would be utilizing pre-conditioned clay for liner construction.
- The project would be utilizing soil sealants, such as SOILTAC®, for dust control.
- The project would be utilizing recycled water purchased from SGVWC as a backup source of water required for construction, operation and closure.
- Recycled water loading facilities would be constructed at SGVWC's facility in South El Monte, CA.
- Changes in the delineation of waters on the landfill property subject to federal or state jurisdiction.

In the 2008 Addendum, 2009 Addendum and 2010 Addendum, the LEA analyzed potential impacts from the identified changes to the project or the circumstances under which the project is undertaken, and determined that none of the conditions requiring the preparation of a Subsequent or Supplemental EIR had occurred. As discussed on p. B-3 – B-4 above, each Addendum was then adopted by the Director of the San Diego County Department of Environmental Health.

LEA was undertaken a review to determine whether there have been any changes to the project or the circumstances under which the project is undertaken related to the matters addressed in the 2008 Addendum, 2009 Addendum and 2010 Addendum. LEA finds that no changes related to those matters have occurred, and its prior determinations that none of the conditions requiring the preparation of a Subsequent or Supplemental EIR has occurred with respect to those matters remains effective.

LEA also conducted a review of documents previously submitted to LEA, as well as information obtained from the applicant, in order to determine whether there were changes to the project or the circumstances under which the project is undertaken that were not addressed in the currently-existing CEQA Documents. The documents reviewed included an updated Joint Technical Document for the project, a detailed review of the JTD and CEQA documents undertaken by URS (2010), and comment letters submitted to LEA. A variety of changes were identified by LEA, and those are set forth in Table 1.

Table 1

Summary of Changes to Project or Circumstances Under Which the Project is Undertaken That Have Not Been Previously Disclosed or Analyzed in the CEQA Documents

<u>Item #</u>	<u>Current Project Feature/Description</u>	<u>Project Feature/Description Described in Previous CEQA Documents</u>
<u>1</u>	<u>Potential 166.0 acres of habitat creation, 75.6 acres of enhancement of riparian areas</u>	<u>155.5 acres of habitat creation, 57.1 acres of enhancement of riparian areas</u>
<u>2</u>	<u>Approximately 30.8 million tons of refuse capacity</u>	<u>Approximately 33.43 million tons of refuse capacity</u>
<u>3</u>	<u>Initial temporary facilities, such as scales and structures, and sanitary facilities, will be replaced during later years of operation</u>	<u>No discussion of temporary vs. permanent facilities</u>
<u>4</u>	<u>A bridge, approximately 681 feet in length, supported by five large diameter piers.</u>	<u>A bridge, approximately 640 feet in length, with five sets of two piles each (for a total of ten piles).</u>
<u>5</u>	<u>Charge of specification of purchased clay liner material, to pre-conditioned at the clay mine to a specified moisture content.</u>	<u>Not included</u>
<u>6</u>	<u>Traffic Director/Spotter = 2; Recycled Water Supervisor = 1; Total = 22</u>	<u>Traffic Director/Spotter = 1; No Recycled Water Supervisor; Total = 20</u>
<u>7</u>	<u>The use of ADC has been shown to reduce refuse-to-daily/intermediate cover ratios from 4:1 to 7:1. The use of ADC has been shown to reduce refuse-to-daily cover ratios from 4:1 to at least 7.5:1.</u>	<u>The use of ADC has been shown to reduce refuse-to-daily cover ratios from 4:1 to 7:1.</u>
<u>8</u>	<u>Assuming a 4:1 cover ratio, approximately 11.4 million cubic yards (mcy) would be needed for daily operations during the life of the landfill. An additional 2.7 mcy of material will be necessary to provide for canyon shaping, the operations layer and final cover over for the site. The total anticipated soil requirement, including cover, would be 14.1 mcy. The proposed landfill development will include the excavation of approximately 7.9 mcy within the landfill footprint, of which approximately 4.9 mcy consists of topsoils, alluvium/colluvium, or weathered bedrock and rippable hard rock that would be suitable for cover material with limited processing required, primarily crushing of the rippable hard rock.</u>	<u>The quantity of excavated rock and soil material would be about 7.93 million cubic yards (mcy), of which 1.48 mcy would be used in the formation of the landfill bottom prior to placement of the containment system. This alternative would reduce total excavation for the project by approximately 3.5 mcy in comparison to the proposed project. Approximately 6.44 mcy of rock and soil material would be available from the refuse footprint area and 4.5 mcy would be available from the stockpile/borrow areas for use as final, intermediate and daily cover soil. The amount of cover material needed for daily, intermediate, and final cover is estimated at 12.7 mcy. The total soil requirement for daily, intermediate and final cover and, canyon shaping would be 12.7 mcy plus 1.48 mcy, or approximately 14.2 mcy. This does not include soil required for the operations layer.</u>

<u>9</u>	<u>26 groundwater monitoring wells surrounding the landfill.</u>	<u>In addition to the 13 monitoring wells surrounding the landfill, the water quality monitoring shall include at a minimum monitoring of two production wells (downgradient SLRMWD well #34 and upgradient Lucio well #2), upgradient alluvial monitoring well GMW-3, and downgradient alluvial monitoring well GLA-16 located within the project boundary).</u>
<u>10</u>	<u>14 permanent gas migration monitoring probes, and 2 temporary probes.</u>	<u>15 gas migration monitoring probes.</u>
<u>11</u>	<u>Installation of a 12-foot high litter fence along the bridge deck to control litter from waste collection vehicles from reaching the San Luis Rey River.</u>	<u>Not included</u>
<u>12</u>	<u>The drainage control system for the GCLF will consist of a variety of treatment BMP's, which may include perimeter drainage systems for the open channels (for adjacent area run-on) and buried pipe (for run-off from the landfill footprint), drainage berms, downdrains, energy dissipaters, desilting basins, drainage swales, structural media filtration, bio-treatment swales and percolation areas.</u>	<u>This system will consist of a buried drainage pipe, engineered grading, drainage berms, downdrains, and energy dissipaters, and two desilting basins.</u>
<u>13</u>	<u>The surface water drainage control system for the GCLF is designed to accommodate a 100-year, 24-hour storm event run-off volumes and the volume of water caused by a simultaneous rupture of the existing Pipeline 1 and 2 and the future Pipeline 6.</u>	<u>The surface water drainage control facilities are designed to carry 100-year, 24-hour storm event runoff volumes.</u>
<u>14</u>	<u>Estimated leachate generation would peak at 9,246 gallons per day.</u>	<u>Estimated leachate generation of 9,245 gallons per day.</u>
<u>15</u>	<u>The excavation plan provides overall interior slope gradient will be 2:1 and the flatter bottom areas will have a minimum gradient of 5 percent.</u>	<u>The bottom area of the footprint will be graded to drain northerly at a minimum gradient of three percent</u>
<u>16</u>	<u>Updated phasing/excavation plan for Phases I, II, III and IV.</u>	<u>Phasing/excavation plan for proposed landfill, not selected alternative.</u>
<u>17</u>	<u>There are 26 bedrock monitoring wells within the proposed landfill footprint and along the periphery of the site.</u>	<u>There are 20 bedrock monitoring wells within the proposed landfill footprint and along the periphery of the site.</u>

<u>18</u>	<u>Excavation contours between 380 and ~925 feet</u>	<u>The lowest depths of excavation for the Prescriptive Design with a Double Liner Alternative range from between approximately 400 feet above mean sea level (amsl) at the northern toe of excavation to approximately 700 feet amsl at the southern toe.</u>
<u>19</u>	<u>Addition of granular activated carbon treatment modules to the reverse osmosis (RO) water treatment plant.</u>	<u>RO treatment only</u>
<u>20</u>	<u>H.G. Fenton mining operating has closed</u>	<u>H.G Fenton mining operation described as land use in the area of the proposed landfill that contributes traffic on SR 76 and other road segments.</u>
<u>21</u>	<u>Opening of MX raceway in former Calmat (Vulcan) mine on Pala Reservation.</u>	<u>Calmat (Vulcan) mining operation described as landfill use that contributes traffic on SR 76 and other road segments.</u>
<u>22</u>	<u>Facility located within the boundaries of the recently-created San Diego County Fire Authority.</u>	<u>Facility located within the sphere of influence of the North County Fire protection District.</u>
<u>23</u>	<u>The LEA cooperates in a regional HHW program efforts, which is a multifaceted program to reduce illegal and harmful disposal of HHW. As indicated in Chapter 5 of the 2005 County Integrated Waste Management Plan, a major portion of collected HHW is reused or recycled and is thus diverted from landfill or other disposal sites. Source reduction, a form of waste prevention, is promoted through public education on alternatives to toxic products. Components of the regional HHW program efforts include collection, load check, disposal and treatment, recycling, reuse, source reduction, education, and public information. The regional HHW program has nine permanent HHW collection facilities with periodic temporary HHW Collection Facility events, and door-to-door pick ups for elderly and disabled residents. Over 90 percent of the HHW collected in the County is either recycled or reused. In addition, one of the key elements of the HHW programs in the region is ongoing education and public information directed toward increasing public awareness.</u>	<u>Not included</u>

24	<u>Continued use of existing Herzog storage yard on former Lucio Dairy for temporary storage of construction materials and equipment, until such time as habitat restoration is implemented on this area</u>	<u>Not included</u>
25	<u>Proposed implementation of compensation measures for loss of 16,069 feet (approximately 0.9 acres) of ephemeral drainages within the areas of disturbance, to provide 27,360 linear feet of ephemeral drainages including articulated block perimeter drain, Borrow/Stockpile Area A perimeter drain, Borrow/Stockpile Area B perimeter drain, and floodplain drainage swales (pending)</u>	<u>2010 Addendum indicated <0.6 acres of streams/drainages/ swales within the area of disturbance are waters of the state.</u>

Most of the changes were undertaken in connection with obtaining other permits or approvals for the project, or to comply with the requirements of other authorities having jurisdiction over the project. An evaluation of potential air quality, health risk and noise impacts from these changes was provided in Hagmann (2011), Air Quality, Heath Risk and Noise Technical Memorandum (Addendum to the Certified Final Environmental Impact Report for Gregory Canyon Landfill). LEA has also evaluated other potential impacts, as appropriate.

Based on its analysis of each of the items identified in Table 1, LEA has determined that none of the conditions requiring the preparation of a Subsequent or Supplemental EIR have occurred, or would occur, and that there is no "new information of substantial importance," in accordance with the standards set forth in CEQA Guidelines § 15162.

The changes identified in Table 1 would not result in a significant new impact or an increase in a previously identified impact. In fact, with respect to virtually all of the items, this conclusion is readily apparent to LEA's technically qualified personnel, and detailed technical analysis is not required. More detailed technical analysis was prepared for Items 16 and 24. A discussion of each item follows below.

Item 1 – Habitat Restoration. Potential air quality, health risk and noise impacts related to habitat creation and enhancement of riparian areas were previously evaluated in the FEIR. The Biological Technical Report included as Appendix B of the RFEIR concluded that the increase in the extent of habitat creation or enhancement from 88.0 acres to 212.6 acres would not result in any secondary impacts (e.g., air quality, health risk and noise) to biological resources because the mitigation would continue to be implemented in accordance with the project biologist. Likewise, the relatively smaller increase from 212.6 acres to 241.6 acres would continue to be implemented in accordance with the project biologist. As noted in Appendix D of the RFEIR, the increase in acreage would not increase the amount or intensity of work on any construction day given the need to protect biological resources, but might extend the time required to complete the work.

Item 2 – Refuse Capacity. The reduction of refuse disposal capacity from 33.4 million tons analyzed in the FEIR to 30.8 million tons would result in a slight reduction in overall fugitive

landfill gas emissions (carbon monoxide (CO) and volatile organic compounds (VOCs) and related toxic air contaminants (TACs)) and combustion emissions associated with the landfill flare system. Also, there would be no change in the intensity of activities for construction and operation at the landfill, and no changes are anticipated in the use of noise producing equipment.

Item 3 – Replacement of Temporary Facilities. Appendix D of the RFEIR and Appendix L of the 2009 Addendum analyzed potential air quality, health risk and noise impacts from construction of additional features on the landfill property. Replacement of temporary facilities would occur during future years of operation in conjunction with ongoing liner development. This replacement would not take place as part of initial construction, where the level of construction activity and potential impacts are expected to be their greatest. Since pieces of equipment used for other purposes were conservatively estimated to operate the entire work day, this additional relatively minor construction would not be expected to result in increased air quality, health risk or noise impacts. To the extent that there are any additional truck trips related to construction of replacement facilities, those would be subject to daily and hourly traffic restrictions (i.e., less than a total of 2,085 PCE trips per day), which is consistent with the passenger-car-equivalent (PCE) trips analyzed in the CEQA Documents.

Item 4 – Bridge. The air quality, health risk and noise analyses conducted for the FEIR included construction activities associated with bridge construction as part of initial construction. The slight increase in length (approximately six percent) and the change from ten piles to five large diameter piles would not result in a change in the amount or intensity of work on any construction day given the need to protect biological resources, but might slightly extend the time required to complete the work. Traffic trip limitations would apply to any materials deliveries. It is important to note, that the amount of excavation needed for bridge construction would be less, since excavation to lower the channel in the San Luis Rey River has been eliminated. Therefore, the revised bridge design could result in slightly less fugitive dust emissions and less use of noise producing heavy-duty construction equipment over the duration of bridge construction.

Item 5 – Pre-conditioned Clay. Air quality, health risk and noise impacts from the use of pre-conditioned clay would be inconsequential, since the same volume of clay for liner construction would still be required. To the extent that there are any additional truck trips, which may be required because the water weight added to the clay may reduce the volume of clay in a given delivery truck, traffic trip limitations would apply to any materials deliveries. In addition, this project feature has the potential to reduce fugitive dust emissions at the project site as the clay material would meet a specified moisture content prior to handling the material on site.

Item 6 – Additional Employees. The increase of two additional employees could potentially increase air pollutant and noise emissions from the project as a result of vehicle trips associated with the employees. However, the project is subject to daily and hourly traffic restrictions as discussed in Item 3. Therefore, the two additional employees would not result in any additional trips, pollutant emissions or noise emissions not disclosed in the CEQA Documents.

Item 7 – Refuse to Daily Cover Ratio. The refuse-to-daily cover ratio can be increased slightly through some modifications in operating activities. This would not be a significant change from operations as described in the CEQA Documents. The use of alternative daily

cover (ADC) was identified and analyzed in the FEIR. The biggest change would be to sequence filling in a way to minimize the need for intermediate cover, which would utilize soil. As a result, careful fill sequencing would result in less soil excavation at the borrow-stockpile areas and less on-site transportation and placement of cover soil. Thus, this project feature would result in a slight reduction in overall fugitive dust emissions and combustion emissions from heavy-duty equipment, and a slight reduction in noise generated from this equipment, than analyzed in the CEQA Documents.

Item 8 – Soil Requirements and Availability. The total volumes of soil required for cover and canyon shaping decrease from 14.2 million cubic yards (mcy), plus the amount required for the operations layer, to 14.1 mcy. No change in the estimated capacity of soil stockpile areas would occur based on this change. The decrease in soil requirements would result in a corresponding reduction in overall fugitive dust emissions and combustion emissions from heavy-duty equipment than what was analyzed in the FEIR. Based on the analysis conducted for Item 16 for potential air quality and health risk impacts related to the updated phasing/excavation plan for Phases I, II, III and IV, air quality or health risk impacts are not anticipated to result in any new significant impacts not previously disclosed in the CEQA Documents. Also, the decrease in soil requirements could result in a corresponding slight reduction in the use of noise producing heavy equipment.

Item 9 – Groundwater Monitoring Wells. Appendix D of the RFEIR and Appendix L of the 2009 Addendum analyzed potential air quality, health risk and noise impacts from construction of additional features on the landfill property. Construction of additional monitoring wells would be part of initial construction. Pieces of equipment used for other purposes were conservatively estimated to operate the entire work day, and this same equipment could be used for this purpose. As an example, the drilling rig used for bridge construction could be used to install the additional monitoring wells. There would be no increase in the amount or intensity of work on any construction day and construction of additional wells would not be anticipated to substantially extend the time to complete the work. The additional monitoring wells would be located in close proximity to the 13 monitoring wells identified in Previous Documentation and the wells would not be considered a long-term emissions source. (GeoLogic (2009), Joint Technical Document, Appendix G-2). Traffic trip limitations would apply to any materials deliveries. As a result, no increased air quality, health risk or noise impacts are anticipated.

Item 10 – Gas Monitoring Probes. Appendix D of the RFEIR and Appendix L of the 2009 Addendum analyzed potential air quality, health risk and noise impacts from construction of additional features on the landfill property. The installation of 14 permanent and 2 temporary gas monitoring probes has a negligible difference from installation of 15 permanent probes. Construction of gas monitoring probes would be part of initial construction. Pieces of equipment used for other purposes were conservatively estimated to operate the entire work day, and this same equipment could be used for this purpose. There would be no increase in the amount or intensity of work on any construction day, but construction of additional probes might extend the time to complete the work. The additional probes would be located in the same areas where other construction would be occurring. Traffic trip limitations would apply to any materials deliveries. As a result, no increased air quality, health risk or noise impacts are anticipated. The slight re-design of the gas monitoring system will enhance the ability to detect releases of landfill gas.

Item 11 – Litter Fence. Appendix D of the RFEIR and Appendix L of the 2009 Addendum analyzed potential air quality, health risk and noise impacts from construction

of additional features on the landfill property. Construction of litter fencing along the bridge deck would be part of initial construction. The height of the fence will be approximately 12 feet above a 3-foot concrete barrier on the bridge for a total height of 15 feet. Pieces of equipment used for other purposes were conservatively estimated to operate the entire work day, and this same equipment could be used for this purpose. Also, because of its location, construction of litter fencing would not increase the amount or intensity of work on any construction day given the need to protect biological resources, but might extend the time required to complete the work. Traffic trip limitations would apply to any materials deliveries. As a result, no increased air quality, health risk or noise impacts are anticipated.

This litter fence does not have the potential to significantly affect bird flight, including that of endangered species such as least Bell's vireo and southwestern willow flycatcher. The fence will be of standard wire mesh fencing material, which is in common use throughout the region on bridges and other applications. Flying birds will be able to see it and avoid it, and there is little or no potential for bird strikes or entanglement. This is in contrast to the use of microfilament materials, which may not be as visible to birds, and that will not be used as part of the fencing material.

Birds, including those listed species with potential to occur in the area, and bats will be easily able to either fly over, under, or around the bridge deck and the litter fence. The height of the litter fence will not pose an impediment to bird flight, based on the preferred habitat, characteristics and behaviors of bird species present in this area. No adverse effects on such species are likely to occur and no take of listed species is expected from the litter fence on the bridge.

Item 12 – Enhanced Stormwater Controls. Appendix D of the RFEIR and Appendix L of the 2009 Addendum analyzed potential air quality, health risk and noise impacts from construction of additional features on the landfill property. Construction of additional storm water control features would be part of initial construction and would primarily be carried out as part of grading activities. No construction would be required for the percolation basins, which would utilize existing topography and soil characteristics. Pieces of equipment used for other purposes were conservatively estimated to operate the entire work day, and this same equipment could be used for this purpose. The additional storm water control features would be located in the same areas where other construction would be occurring. Also, given the location of these additional facilities, their construction would not increase the amount or intensity of work on any construction day given the need to protect biological resources, but might extend the time required to complete the work. As all proposed features are passive controls, no noise would be generated from operation. Traffic trip limitations would apply to any materials/equipment deliveries. As a result, no increased air quality, health risk or noise impacts are anticipated.

Item 13 – Western Perimeter Drain. Appendix D of the RFEIR and Appendix L of the 2009 Addendum analyzed potential air quality, health risk and noise impacts from construction of additional features on the landfill property. In order to accommodate higher flows in the western perimeter drain, the size of the drains would be relatively larger, with more shaping of the foundation and more concrete. Pieces of equipment used for other purposes were conservatively estimated to operate the entire work day, and this same equipment could be used for this purpose. The larger sizing would not result in an increase in the amount or intensity of work on a given work day, but might extend the time required to construct the western perimeter drain. The perimeter drains are located in the same areas where other

construction would be occurring. Although additional pre-mixed concrete delivery truck trips would be necessary for the improvements, hourly and daily traffic trip limitations would apply to any materials/equipment deliveries and would therefore not result in any additional daily trips. As a result, no increased air quality, health risk or noise impacts are anticipated.

Item 14 – Leachate generation. The estimated peak leachate generation per day is estimated to be only one gallon per day higher than estimated and analyzed in the FEIR, which is inconsequential and would not result in an increase of fugitive landfill gas emissions or combustion emissions associated with the landfill flare system, or an increase in disposal trips or vehicle noise related to removal of leachate for off-site treatment.

Item 15 – Excavation Plan. The excavated gradient within the landfill footprint would change slightly to better facilitate the removal of leachate. However, as noted in the discussion of Item 8, the total amount of excavation for specified construction activities, including canyon shaping, is less than estimated in the FEIR. No changes in the use of noise producing heavy equipment are anticipated. Based on the analysis conducted for Item 16 for potential air quality and health risk impacts related to the updated phasing/excavation plan for Phases I, II, III and IV, no increase in air quality or health risk impacts are anticipated.

Item 16 – Updated Phasing/Excavation. The phasing/excavation plan for Phases I, II, III and IV were modified subsequent to the analysis performed for the FEIR. A graphic showing the revised phasing is included as Figure 2 in Hagmann (2011). The size of different phases within the landfill footprint might be smaller or larger than estimated in the FEIR, but the overall footprint would remain the same. An Air Quality Impact Analysis (AQIA) required by San Diego County Air Pollution District (SDAPCD) under SDAPCD New Source Review (NSR) was performed and addressed the changes in the phasing/excavation plan as well as refinements to emission factors and control efficiencies developed in consultation with SDAPCD. There were a number of refinements to the analysis, which are discussed in detail in Hagmann (2011). The AQIA analyzed criteria and TAC emissions from the project using air dispersion modeling, and evaluated air quality impacts that project emissions could have on State and National Ambient Air Quality Standards (AAQS). The AQIA findings were compared against the findings of the FEIR, which demonstrated that the revisions to the phasing/excavation plan would not result in any new air quality and health risk impacts not previously disclosed in the CEQA Documents.

With respect to potential noise impacts, pieces of equipment used for landfill construction and operation (e.g., loaders, bull dozers, compactors) were conservatively estimated to operate the entire work day. Larger sizing of a phase would not result in an increase in the amount or intensity of work on a construction day, but might extend the time required to construct that phase. The converse is also true, where the time for construction might be less if the phase is smaller. The noise analysis presented in Section 4.6 of the FEIR addressed potential noise impacts based maximum use of heavy-duty equipment on a daily basis and on distance noise attenuation between the closest noise sensitive receptor to the landfill footprint. As such, the change in phasing/excavation would not change the noise levels presented in the Final EIR since the overall landfill footprint would not change.

Item 17 – Bedrock Monitoring Wells. Appendix D of the RFEIR and Appendix L of the 2009 Addendum analyzed potential air quality, health risk and noise impacts from construction of additional features on the landfill property. Construction of the additional bedrock

monitoring wells would be part of initial construction. Pieces of equipment used for other purposes were conservatively estimated to operate the entire work day, and this same equipment could be used for this purpose. As an example, the drilling rig used for bridge construction could be used to install the additional monitoring wells. There would be no increase in the amount or intensity of work on any construction day and construction of additional wells would not be anticipated to substantially extend the time to complete the work. The additional six monitoring wells would be located in close proximity to the 20 monitoring wells identified in previous CEQA Documentation and the wells would not be considered a long-term emissions source (GeoLogic (2009)). Traffic trip limitations would apply to any materials deliveries. As a result, no increased air quality, health risk or noise impacts are anticipated.

Item 18 – Excavation Contour. The excavation contour for the northern toe would change from approximately 400 feet above mean sea level (amsl) to 380 feet amsl, which is inconsequential. The difference at the southern toe between 700 feet amsl and approximately 925 feet amsl represents a substantial reduction in depth of excavation. The change in elevations would not result in a change in air quality, health risk or noise impacts as the maximum daily activity associated with excavation activities (e.g., quantity excavated and use of heavy-duty construction equipment) would not change in comparison to excavation activities analyzed in the FEIR. In addition, as noted in Item 8, the total amount of excavation for specified construction activities is less than estimated in the FEIR.

Item 19 – Addition of GAC Treatment. Appendix D of the RFEIR and Appendix L of the 2009 Addendum analyzed potential air quality, health risk and noise impacts from construction of additional features on the landfill property. A reverse osmosis treatment plant was described in the FEIR as part of initial construction. Additional granular activated carbon (GAC) treatment canisters would be added. GAC adsorption technology is a proven technology for removal of VOCs from groundwater and is often used as a water purification technology for removal of VOCs from drinking water. The major components of the GAC treatment system for the project would include: (1) influent equalization tank; (2) two influent electric transfer pumps; (3) pre-filtration system; (4) two 2,000 pound GAC vessels; and (5) an effluent surge tank. From a construction standpoint, the system would require limited use of heavy-duty construction equipment for installation. Pieces of equipment used for other purposes were conservatively estimated to operate the entire work day, and this same equipment could be used for this purpose. The additional equipment would be located in the same areas where other construction would be occurring. Traffic trip limitations would apply to any equipment deliveries. The noise analysis presented in Section 4.6 of the FEIR indicated that the largest source of noise in the landfill facilities area would be trucks entering and exiting the landfill. Operation of the GAC treatment system, if required, would be a minor source of noise and would not result in a significant increase in the landfill facilities area. It is important to note that the addition of the GAC canisters would allow for effective treatment of a broader range on contaminants that might be released from the landfill and captured in the pumping wells and would not be considered a long-term source of air pollutant emissions.

Item 20 – H.G. Fenton Quarry. The H.G. Fenton quarry is no longer operational and would not result in any increases in potential air quality, health risk and noise impacts identified in the FEIR and RFEIR. Traffic counts utilized for calculation of the baseline traffic condition in the 2006 Darnell Traffic Study included quarry traffic (Darnell Traffic Study, Appendix A, included as Appendix A to the RFEIR). Since the quarry is no longer operational it would serve to reduce truck trips along State Route (SR) 76, and fugitive dust emissions.

combustion emissions and noise levels. Thus, a slight improvement in air pollutant concentrations in the vicinity of the quarry and the project site could occur. In addition, the results of the CO and traffic noise modeling conducted in the FEIR and RFEIR for intersections in the landfill vicinity would be considered conservative since truck trips associated with H.G. Fenton quarry were included in the traffic analyzed.

Item 21 – Pala MX Raceway. The Calmat (Vulcan) quarry is no longer operational and would not result in any direct changes in potential air quality, health risk and noise impacts identified in the FEIR and RFEIR. Traffic counts utilized for calculation of the baseline traffic condition in the 2006 Darnell Traffic Study included quarry traffic (Darnell Traffic Study, Appendix A, included as Appendix A to the RFEIR). However, the property has been modified and converted to be operated as a 240-acre motocross raceway under a long-term lease between MX Motocross Raceway that the Pala Band identified as the Pala Raceway. According to San Luis Rey Watershed Council (SLRWC) Meeting Minutes, dated 5/22/2008, Kirk Chandler (Pala Raceway/MX Raceway) presented that “There are no plans for large “Spectator Events”, like those held at the Carlsbad Raceway; if this changes there will be multiple traffic studies done...”¹ Additionally, it was presented that the raceway traffic would be limited to approximately 196 vehicles per day (on a 30-day schedule) and would be substantially less than Vulcan Mining which was more than 230 trucks per day (at a higher Passenger Car Equivalent). The MX Raceway is open five days each week for open practice, which is expected to produce traffic volumes in the range predicted by the operator.

A review of the calendar on the Pala Raceway website indicates that the MX Raceway does periodically hold weekend events that would be expected to result in larger traffic volumes. However, these do not appear to represent the “large events” discussed by the operator in 2008, as no “multiple” traffic studies have been discovered, and those events are sporadic and spread throughout the calendar year. Given the small number of days these weekend events take place in comparison with ongoing, daily operations at the former Vulcan quarry, there would be a minimal effect to average daily traffic (ADT) volumes. Traffic associated with the landfill would be expected to be less on weekends; nonetheless, peak hour traffic restrictions mandated in the RFEIR would remain in force on weekends. In addition, Pala Raceway traffic may not constitute a significant increase over ADT generated overall from operation of the Pala Casino. When weighing the potential increase to ADT generated by the Pala Raceway against the ADT decrease attributable to the closing of the Calmat (Vulcan) quarry, the overall change in traffic is not significant. Moreover, the closure of the H. G. Fenton quarry further offsets any traffic from the Pala Raceway. As discussed above for Item 20, the results of the CO and noise modeling conducted in the FEIR and RFEIR for intersections in the project vicinity would be considered conservative since truck trips associated with H.G. Fenton and Calmat (Vulcan) quarries were included in the traffic analyzed.

Item 22 – Fire Protection. All local fire protection authorities operate under a mutual aid agreement. Regardless of which authority is providing service, response will occur from the nearest fire station first, with other more distant fire stations participating as needed. As a result, there would be no changes in the significance conclusions for air quality, health risk and noise impacts identified in the FEIR. No additional analysis is required.

¹ http://www.projectcleanwater.org/pdf/slrwc/slrwc_minutes_05-22-08.pdf

Item 23 – HHW Diversion Program. LEA programs to divert household hazardous waste (HHW) prior to placement in waste receptacles reduces the potential for delivery of HHW to the landfill. While it is not easily quantifiable, the reduction of HHW to the landfill would potentially further reduce air toxic emissions released from the landfill. As a result, there would be no changes in the significance conclusions for air quality and health risk impacts identified in the FEIR. This program could result in fewer truck trips to and from the landfill, as there could be less need for truck trips related to proper handling and off-site disposal of these materials, and less vehicle noise.

Item 24 – Temporary Storage Yard. The continued use of the existing Herzog storage yard on the former Lucio dairy for temporary storage of construction materials and equipment was not considered in the CEQA Documents. This temporary storage would only be used until such time as habitat restoration is implemented on this area. The temporary construction storage yard would be used during initial construction of the landfill and during some of the liner construction activities. The temporary storage yard is a disturbed area that is currently being used as a storage yard located near the center of the GCLF property, north of Highway 76 and west of the access road. Materials and equipment to be placed at the temporary storage yard include concrete and asphalt excavated as part of demolition of the existing dairy facilities, synthetic liner material, piping, steel beams, wood forms, modular buildings, tanks and related construction materials, as well as limited vehicle parking. Activities at the yard will include delivery of materials, transport of materials to the construction areas, and crushing of asphalt and concrete and transport to landfill areas for use in wet weather decking and road base.

Potential air quality and health risk impacts were analyzed in Hagmann (2011). The AQIA for the Permit Application analyzed the worst-case combination of emissions and locations to yield the maximum off-site ambient air quality impact of all operations. The AQIA demonstrated that the ambient air quality standards would not be exceeded when the landfill was operated in the worst-case combination of emissions and locations. Since the operations that could cause emissions at the temporary storage yard (i.e., a few pieces of construction equipment and a very small amount of crushing and material handling) is much less than full scale landfill operations (less than one percent of the crushing and less than 0.2 percent of the amount of material moved for initial construction), and since the temporary storage yard is located relatively much further from the site boundary than the other major landfill operations, the temporary storage yard will not materially change the ambient impacts reported in the AQIA, and air quality and health risk impacts would be consistent with the finding in the FEIR.

The temporary storage yard would be used intermittently and would not be considered a substantial source of noise. In addition, the series of mitigation measures in the FEIR and REFEIR that reduce both direct and indirect (noise) impact to biological resources would be applicable to operations on the temporary storage yard.

Construction-related mitigation measures designed to reduce impacts to biological resources to a level of less than significant would also be implemented for the temporary storage area. Those would include arroyo toad exclusion fencing and surveys (MM. 4.9-5a and MM 4.9-5b), and noise monitoring in riparian habitat areas coupled with operational changes/barriers as required to meet the specified noise standard (MM 4.9-12a).

Item 25 – Ephemeral Drainages

The 2010 Addendum included an analysis of potential impacts from changes in the designations of waters within the area of disturbance by state and federal agencies. The 2010 Addendum concluded that no “new information” arose from the assertion of broader jurisdiction, since those waters were in areas already designated for disturbance as part of the project, and mitigation measures reducing those impacts to less than significant had already been provided.

Recently, the RWQCB has indicated that ephemeral drainages of approximately 16,000 linear feet and approximately 0.9 acres within the area of disturbance would be treated as waters under Porter Cologne. The 2010 Addendum estimated that about 0.5 acres of ephemeral drainages would be considered waters of the state. However, that estimate was expressly subject to final confirmation by the agencies. This would add an additional 0.4 acres above the acreage previously identified.

As noted in the 2010 Addendum, that indication from RWQCB does not in and of itself indicate a new or increased significant impact. “Whether or not a water on the landfill site is jurisdictional or not, the activity that may create a significant impact is the disturbance of that portion of the landfill property” (2010 Addendum, p. 6).

Magdych (2010), Updated Evaluation of Hydrogeomorphology and Beneficial Uses at Gregory Canyon (JTD, Appendix I-1) provided a detailed discussion of the values of the drainages in light of the beneficial uses set forth in RWQCB’s basin plan and other potential functions, such as sediment transport, habitat, nutrient recycling, thermal and microclimate effects and episodic drainage, as well as potential hydromodification impacts. The report concluded that the mitigation measures in the RFEIR were adequate to preserve or mitigate any loss of beneficial uses or functions provided by the ephemeral drainages.

Nonetheless, the applicant has proposed to RWQCB that it provide compensation for the loss of all 16,069 feet of ephemeral drainages by providing 27,630 feet of in-kind ephemeral drainages on the landfill property. Those are in three general locations: the landfill perimeter drain, Borrow/Stockpile Areas A and B, and the habitat restoration area. At this time it is speculative whether this proposal will be implemented. However, because of the potential it might be implemented, LEA has considered potential impacts.

First, the applicant proposes the replacement of 4,382 feet of concrete V-ditch landfill perimeter drain with articulated block. The use of articulated block drains is becoming increasingly popular, and is routinely used by the U.S. Army Corps of Engineers in its public works projects. Articulated block consists of pre-cast concrete blocks tied together with rebar-like metal ties. It provides stability similar to the concrete V-ditch, while at the same time allowing for infiltration of storm water and development of vegetation communities. Articulated block would be used on the southern portion of the east and west perimeter drains, where flow volumes and velocities are lower. The articulated block drains will be sized to accommodate the same flows as the V-ditches, after considering the increase in roughness. There will be no increase in the size of the area of disturbance to accommodate the use of articulated block drains. No adverse impact on the erosion control function of the landfill perimeter drains is expected.

Designs for the articulated block drains are provided in Magdych (2011) Ephemeral Drainage Feature Compensation Plan for the Gregory Canyon Landfill.

Hagmann (2011), Supplemental Air Quality, Heath Risk and Noise Technical Memorandum (Addendum to the Certified Final Environmental Impact Report for Gregory Canyon Landfill) analyzed potential Air Quality, Health Risk and Noise Impacts from the use of articulated block drains . Appendix D of the RFEIR and Appendix L of the 2009 Addendum analyzed potential air quality, health risk and noise impacts from construction of additional features on the landfill property. Pieces of equipment used for other purposes were conservatively estimated to operate the entire work day, and this same equipment could be used for this purpose. A crane would be utilized to install the articulated block drains, and this specific piece of equipment was noted as being on site for other purposes in Appendix D of the RFEIR and Appendix L of the 2009 Addendum. The use of articulated block would increase the number of deliveries of the material, but would reduce the number of pre-mixed concrete deliveries needed to construct the perimeter drains. The number of truck trips would likely be similar. Regardless, traffic trip limitations would apply to any materials deliveries. As a result, no increased air quality, health risk or noise impacts are anticipated.

The articulated block would allow some storm water to infiltrate into the underlying fractured bedrock formation. This is expected to happen infrequently. Magdych (2011), Comments on letter from Richard R. Horner, Ph.D., noted that flow in Gregory Canyon has only been observed three times in the past 11 years, for relatively short durations. The RFEIR noted that infiltration into the fractured bedrock formation would decrease as landfill development proceeded, as infiltration would be precluded in developed areas such as the landfill footprint. To the extent that the articulated block drains allowed for infiltration, it would slow that process of diminishing infiltration. As a result, no adverse impact on ground water resources within the Gregory Canyon watershed would result.

To the extent that the articulated block drains would allow some limited infiltration, this would prevent some storm water from flowing to the end of the perimeter drainage system and being discharged into infiltration areas above the Pala alluvial basin. However, given the limited number and extent of flow events, and the relative volume of this storm water compared with the overall volume of the Pala alluvial basin, the impact would be extremely small. The long term safe yield of the Pala alluvia basin is 3,350 AFY (FEIR, p. 4.3-16), the safe yield of the Gregory Canyon fractured bedrock formation watershed (415 acres) is 43.55 AFY (RFEIR, p. 4.15-22), and the amount of storm water infiltrating through the articulated block drains (<5 acres) is a fraction of that. The FEIR concluded that the pumping of 205,000 gpd from the Pala Basin aquifer would not result in a significant impact to water resources. The 2009 Addendum updated water usage requirements, and indicated that the maximum expected water usage would be 66,785 gpd as an annual average. Given the reduction in anticipated water usage from the Pala alluvial basin, the potential loss of this very small amount of storm water to the Pala alluvial basin would have no adverse affect on water resources in the Pala alluvial basin.

Second, the applicant proposes to provide 5,709 feet of earthen drainages around Borrow/Stockpile Area A, and 7,164 feet of earthen drainages around Borrow/Stockpile Area B. Since these drainages are earthen, there would be no change in the potential for infiltration into underlying formations from existing drainages.

The creation of these drainages is best characterized as a further elaboration of activities that were previously described and analyzed in the FEIR. The project description in the FEIR provides that “proper drainage controls will be maintained in the borrow/stockpile area” and “surface water will be conveyed from the borrow/stock pile areas and discharged in the existing natural drainage courses.” Magdych (2011) indicated that “these perimeter drainages will provide for transport and infiltration in a manner very similar to the drainages affected by the project, and will develop vegetation similar to those drainages.”

Appendix D of the RFEIR and Appendix L of the 2009 Addendum analyzed potential air quality, health risk and noise impacts from construction of additional features on the landfill property. Development of these ephemeral drainages would occur concurrent with development of the borrow/stockpile areas. Pieces of equipment used for other purposes were conservatively estimated to operate the entire work day, this additional relatively minor construction would not be expected to result in increased air quality, health risk or noise impacts. For example a small Bobcat would likely be utilized to create these drainages, and this equipment would also be used for other minor grading. Finish work would primarily be done with hand tools. No additional truck trips are anticipated to complete this work. As a result, no increased air quality, health risk or noise impacts are anticipated. The size of the disturbance for the borrow/stockpile areas would not change, and there would be no additional impacts on vegetation communities or biological resources.

Third, the applicant proposes to provide 10,105 feet of ephemeral drainage swales within the habitat restoration area. These swales would be shallow, and would be vegetated consistent with the plant palette designated for that portion of the habitat restoration area in URS (2008) Habitat Restoration and Resource Management Plan.

Potential air quality, health risk and noise impacts related to habitat creation and enhancement of riparian areas were previously evaluated in the FEIR. This small addition to the habitat restoration activities would continue to be implemented in accordance with the project biologist. It would not increase the amount or intensity of work on any construction day given the need to protect biological resources, but might extend the time required to complete the work. No adverse impacts on air quality, health risk, noise or biological resources would result.