

ATTACHMENT B CEQA FINDINGS

I. INTRODUCTION TO CEQA FINDINGS

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 environment 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, social 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 FEIR and based upon the analysis prior to adoption of these findings to determine the feasibility of mitigation measures and project alternatives identified in the FEIR 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)(B); 15093). The Guidelines state “CEQA requires 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 County of San Diego, Department of Environmental Health, Solid Waste Local Enforcement Agency (LEA). Evidence in support of these findings is included in the FEIR and technical appendices, in the Section 15162 findings, in the Statement of Overriding Considerations, the benefits analysis for the project and in the entire Record of Proceedings. Prior to certifying the FEIR, 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 adoption of these findings.

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

A. LAND USE IMPACTS.

1. Finding

Pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations had been required in, or incorporated into, the project that will mitigate potentially significant impacts to land uses to a level of insignificance.

2. Facts in Support of Finding.

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 has 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 SDG&E 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 SDCWA and the 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.

In addition to existing uses are a number of commercial, industrial, residential and extractive uses that are planned in the project area. A 187,000 square foot gaming and entertainment facility has been completed on the Pala Reservation located approximately 1.5 miles east of the project site. This commercial project includes 1,500 slot machines, 60 table games, 6 poker tables, a 25 seat off track belting area, 4 restaurants, a coffee and ice cream bar, and a 20,800 square foot multi purpose room used for bingo, concerts, and boxing events. The Pala project also includes a 350 seat entertainment bar and lounge. The Pala project is expected to attract about 5,000 patrons per day. 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.

Planned commercial and industrial uses in the project area include the Campus Park Specific Plan, which includes a 422 acre mixed-use development containing 32 acres of industrial uses, 17 acres of commercial uses, and suburban density residential uses with a golf course and open space located east of I-15 and north of SR-76. The Lake Rancho Viejo Specific Plan located east of I-15 and south of SR-76 permits the development of approximately 816 dwelling units on a 436-acre site.

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. A detailed traffic analysis indicates the project traffic under operating conditions with maximum daily inflow would not result in any significant traffic impacts. 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" 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 because it would provide for the construction and operation of a landfill in the northern San Diego County area. Both plans recognize the regional need for a landfill in the northern part of the County. This site was identified as a tentatively reserved disposal site in the Integrated Waste Management Plan, adopted by the County and a majority of the cities on September 16,

1996. The Gregory Canyon site became a reserved site in the plan when Proposition "C" was upheld by the Court of Appeals in 1997. The new Draft Siting Element also designates Gregory Canyon as a reserved solid waste site. The project is also consistent with the adopted Habitat Conservation Plans. Approximately 179 acres of coastal sage scrub and 44 acres of coastal sage scrub/chaparral would be lost with the proposed project. About 612 acres of coastal sage scrub and 30 acres of coastal sage scrub/chaparral would be preserved. 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. The project is consistent with all of the siting criteria contained in the adopted Integrated Waste Management Plan. This consistency analysis is discussed in detail in the response to Grasetti 121.

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).

B. GEOLOGY AND SOIL IMPACTS

1. Finding

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 impacts to geology and soils to a level of insignificance.

2. Facts in Support of Finding

Detailed geologic and hydrologic studies of the project site have occurred over 11 years. The initial geologic and hydrologic study was completed by Geotechnical Consultants for the County of San Diego and the U. S. Department of Interior in 1989. Additional geologic and hydrologic investigations of the project site were completed by Geraghty and Miller in 1988 and 1990. The fourth geologic and hydrologic study of the project site was completed by Woodward-Clyde Consultants in 1995. An additional geologic and hydrologic study of the project site was completed by GeoLogic Associates in 1997 which was supplemented with additional hydrogeologic work completed in 1998 and 1999. A geophysical study of the potential borrow/stockpile areas was completed by GeoLogic Associates in 1998. Geologic and hydrogeologic studies of the project site are contained in Appendix "F" of the FEIR.

The Elsinore fault zone runs approximately six miles northeast of the project site and is the closest of the large fault systems to the project site. Faulting was initially evaluated

for the project site and surrounding area by the geologic firm of Woodward-Clyde in 1995 based on a review of geologic literature, large and small scale stereo aerial photographs, and field reconnaissance data. .) A second geologic firm, GeoLogic Associates ("GLA"), augmented the fault analysis in 1997. Data secured by both geologic firms confirmed there are no active faults located on the project site or in the surrounding area. An inactive fault north of the project site discovered by Jahns and Wright in 1951 was further evaluated by GLA in 1999. Careful inspection of the outcrops along SR-76 and the north flank of Gregory Mountain by GLA in 1999 confirmed there are no active faults on the project site or the surrounding areas. The complete fault investigation is presented in Appendix "F" of the FEIR. The fault investigation confirms that no significant impacts from ground rupture will occur.

The potential for the project site to experience seismic shaking due to a nearby earthquake was also evaluated. A geologic investigation of the site documented the fact that the side slopes have not experienced significant land sliding in the recent geologic past. A stability assessment was performed using a kinematic analysis (Norrish & Wyllie, 1996) to see if movement along one or more of the main discontinuity plains was possible. The kinematic analysis showed that large-scale block-slip movement and wedge-failure are not feasible given the geometry of the dominant directions of discontinuity in Gregory Canyon. All of the rocks exposed at the project site are compact and cohesive indicating that landsliding will not occur.

GLA drilled and sampled the alluvial wedge at four different locations on the project site in 1998. The liquefaction susceptibility of these alluvial soils was then evaluated using the analytical procedure described by Seed and Idriss (1982). The analysis demonstrated that the liquefaction susceptibility of the alluvial wedge on the project site is low, and no significant impacts related to soil liquefaction will occur.

The project includes a number of design features to mitigate potential geology and soil impacts to a level of insignificance. The drainage system for the project includes desilting basins to control run-off and siltation. Reinforced slabs will be placed over the SDCWA pipelines so that earth-moving equipment places no weight on the existing SDCWA pipelines while crossing the easement. A pre-blast survey will be conducted by a qualified geologist to identify areas of potential rock fall concern. Any rocks or boulders identified as unstable will be removed as necessary prior to any blasting. Natural vegetation will be maintained to the maximum extent possible.

A slope stability analysis of the refuse fill and a deformation analysis indicated that both the refuse fills and the final refuse prism for the proposed project are stable and will meet the state standard of 1.5 under dynamic conditions. However, during construction the liner system of the landfill could be susceptible to sliding failures. To mitigate this potential impact to a level of insignificance, the geosynthetic materials will be anchored at the head of the slope and weighted throughout their extent with twenty-pound sandbags on five-foot vertical spacing. If the liner system were to be damaged before it is weighted down by refuse, the applicant will repair, and if necessary reconstruct, the liner. Repairs to the geosynthetic materials will be completed and tested in accordance with regulations and project specifications. The Regional Water Quality Control Board will perform field observations to ensure compliance.

Although the detailed geologic investigations of the project site indicated it was very unlikely that the landfill liner will tear as the result of a significant seismic event, a

mitigation measure has been adopted to ensure a tear in the liner does not create any environmental impacts. Following significant seismic events, inspection of all facilities and structures, as well as surrounding natural features, will be performed and necessary repairs will be made. If a tear in the liner is identified, repairs to the geosynthetic materials shall be completed immediately by placing a patch over the torn sections and fusing the materials by patch-welding. The operator will perform vacuum testing on the patch-welds to ensure compliance with the standards established for the original liner construction. Patching will be performed under strict construction quality assurance protocols used during original construction and the Regional Board will perform field observations to ensure compliance with applicable regulations.

Some settlement of the landfill will occur due to compression and decomposition of the refuse fill and movement of soils into the voids within the refuse. To mitigate this potential impact to a level of insignificance, a monitoring and maintenance program has been adopted that includes annual topographic surveys to measure settlement, quarterly visual inspections to identify damage to the final cover or gas systems, and repair of these systems as required. The frequency of monitoring may be reduced after closure of the landfill. The gas collection system will be flexible to accommodate settlement and allow for repair. The Department of Environmental Health will perform inspections to ensure compliance.

Potential impacts to landfill facilities or personnel caused by falling rocks or boulders during a seismic event or blasting have been mitigated to a level of insignificance. All boulders 24 inches in size or greater will be inspected by designated site personnel prior to development of any area of the landfill. Prior to any on-site blasting, a qualified geologist will identify areas of potential rock fall concern. All boulders found insecure will be removed prior to blasting. Prior to any on-site blasting a qualified geologist will identify any boulders that may become dislodged during blasting and they will be removed. Additional inspection of the rock masses surrounding the landfill will be completed every five years and/or after a significant earthquake in order to identify new areas of potential rock fall concerns. The applicant's geotechnical consultant will submit a letter to the Department of Environmental Health after any such inspection documenting its findings and recommending any necessary actions. All actions recommended by the inspection shall be implemented.

A detailed geotechnical evaluation was completed of the 3 hanging basins that drain the western summit of Gregory Mountain to determine whether construction of the project would create any debris-flow problems. This geotechnical evaluation indicated that 2 of these basins have sufficient vegetation to avoid any potential for debris flow. Basin 1 which has less vegetation has the potential for a debris flow. To avoid any risk of debris flow in this basin, a gabion dam will be constructed prior to the start of grading activities. The gabion structure acts as a retaining wall to prevent debris flow during grading operations.

With the project design features and mitigation measures that have been adopted potential project impacts to soils and geology have been reduced to a level of insignificance.

C. HYDROGEOLOGIC IMPACTS

1. Finding

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 impacts to hydrogeology identified in the FEIR to a level of insignificance.

2. Facts in Support of Finding

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 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 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 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.

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)

Historically, the project site has been utilized for agricultural operations. The principal agricultural use has been the Lucio and Verboom Dairies located on the project site. There are existing wells on the project site. Historical water usage from these existing wells has been approximately 465 acre-feet per year although this historical usage has been reduced recently as a result of elimination of the Lucio Dairy. The proposed project will require approximately 165 acre-feet per year of water for initial construction and 193 acre-feet of water for long-term operations..) This represents a substantial reduction from the historical water usage of the project site. Testing of existing wells

located on the project site prior to certification of the FEIR on February 6, 2003 indicates that these wells have the capacity to generate approximately 1,000 acre-feet of water per year. The productive capability of these wells far exceeds the expected water demand for the project.

Several commentators have recently written letters to the LEA asserting that the project may be unable to utilize riparian water derived from existing or future wells on the project site to fulfill the project's water needs. These commentators have also asserted that a water supply assessment is mandated for the project under Water Code §10915(g)

Several comments have been received suggesting that the sole source of riparian water available to the project is water from the San Luis Rey River. In actuality, the project has three (3) sources of riparian water available to it as follows: (1) riparian water from the San Luis Rey River; (2) riparian water from the subterranean stream; and (3) percolating groundwater. Each of these sources of water is discussed in some detail in the FEIR. The San Luis Rey River passes through a number of parcels included as part of the project. (FEIR Exhibit 3-2). Riparian water from the San Luis Rey River is available to serve these parcels.

The FEIR for the project analyzed groundwater resources on the site and determined that these consisted of both an alluvial aquifer that extends to the landfill footprint and a bedrock aquifer that derives its water from percolation (FEIR pg. 4.3-8). Wells in the alluvium have yields from 10 to 400 gallons per minute (FEIR ppg. 4.3-2). As noted in the FEIR, the State Water Resources Control Board ("SWRCB") has determined that groundwater in the alluvium of the Pala Basin is flowing in a subterranean stream. (FEIR pg. 4.15-9; SWRCB Decision 1645 (2002)The alluvial basin for this subterranean stream on the project site remains an available source of riparian water for the project. The third source of riparian water available to the project is percolating groundwater not within the alluvial basin. Percolating groundwater may be transported across parcel lines on the project site to fulfill the project's water needs without a permit from the State Water Resources Control Board.

Both the detailed hydrogeotechnical investigation of the project site and the FEIR document the existence of fractured bedrock on the project site that provides appreciable percolating groundwater. The FEIR notes that there are two distinct groundwater zones within Gregory Canyon, an alluvial aquifer, and "a bedrock hosted by the fractured tonalite that forms a substrate of the canyon". (FEIR pg. 4.3-8). Fifteen wells drilled in the fractured bedrock within the landfill footprint had estimated yield rates of 5 to 20 gpm. (GLA, Hydrogeologic Investigation (Phase 5, 1997) pg. 34 (FEIR Appendix "G"); FEIR pg. 4.3-8). Each of the parcels that comprise the Gregory Canyon landfill has one of these three sources of riparian water available to them. (This is stated based on riparian water law applied to data that is in the FEIR. Some parcels touch the San Luis Rey River. Exhibit 4.3-2. Some parcels have the subterranean stream available or indicated in Exhibit 4.3-3. This shows the alluvial aquifer extending to the landfill footprint on the north. All other parcels have percolating groundwater).

It should be noted that the project has three (3) other sources of water available to it beyond the three sources of riparian water described above. The first source of this water is appropriative water based upon the project's application for appropriation filed with the SWRCB on October 17, 1991 (Application No. 30038). The second source of water is water collected from the subdrain included as part of the project. The third

source of water available to serve the project is through the use of water trucks to deliver water to the site. Several companies that truck water have been contacted and have verified their ability to provide all water needed to serve the project during construction and operation).

Data contained in Exhibit 4.3-2 of the FEIR indicates that there are ten existing wells located outside the landfill footprint. An additional twenty wells have been drilled within the proposed landfill footprint and along the periphery of the site. (GLA, Hydrogeologic Investigation (Phase 5, 1997) pg.34). Testing of these wells prior to certification of the FEIR indicated these existing wells have the capacity to generate approximately 1,000 acre-feet per year of water (FEIR pg. 4.3-16). This far exceeds the project need of a maximum of 165 acre-feet per year during construction and a maximum of 193 acre-feet per year during operations (FEIR pg. 4.3-16). Each of these wells is clearly located in an alluvial aquifer or is derived from percolating groundwater that may be transported across parcel boundaries for the site. There is no evidence that one of the many sources of water available to the project cannot adequately accommodate all of the water needs of the project. In the unlikely event that none of these sources of water are available to serve the project, water will be trucked to the site.

One commentator has asserted that a water supply assessment is 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 for the project contained a detailed analysis of the water supply needs of the project and the alternative sources available to supply these needs.

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 liner 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 composite liner system described in Section 6.7.2 of the FEIR has now been 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 composite 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 that will allow the transport of leachate into groundwater. The liner composite system exceeds Regional Water Quality Control Board requirements for a non-hazardous waste landfill such as the proposed project and is typically required only for hazardous waste landfills.

The 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 two enclosed 10,000 gallon storage tanks. These two 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 Response to Comment J015, Volume V of the FEIR) in the sixteenth year of project operations so that the two 10,000 gallon leachate storage tanks will provide adequate capacity for several days of the maximum leachate flow. Leachate collected in the two 10,000 gallon storage tanks will be trucked offsite for treatment and disposal every other day. 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 Regional Board 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 Regional Water Quality Control Board. 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 Regional Board. 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.

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 Regional Board. 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 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 composite liner system that further, and substantially, minimizes the risk of a leak in the liner system.

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 5 years for contaminants from the landfill to reach the closest downgradient production wells, both of which are located well within the landfill property. (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 sixteen (16) monitoring wells located at both the upgradient and downgradient portions of the landfill.

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 pg. J-4.)

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 pg. J-4.)

Construction and operation of the project will not impact the availability of groundwater in the Pala Basin. Historically, there has been adequate water in the Pala Basin to serve all uses in the basin and to provide 465 acre-feet of water for agricultural production and residential uses on the project site. Studies of the Pala Basin indicate water usage in the Pala Basin has remained consistently at approximately 2,400 acre feet per year with a safe yield with proper management practices of 3350 acre feet. (See FEIR pg. 4.3-16) The project will need a maximum of 165 acre-feet per year during construction and a maximum of 193 acre-feet per year during operations. Consequently, implementation of the project will result in a net saving of approximately 270 acre-feet per year of water historically utilized for the agricultural operations on site although this historical use has been reduced recently due to elimination of the Lucio Dairy. In addition, construction of the project will remove agricultural, dairy and cattle grazing uses that currently exist on the project site thereby reducing future impacts to groundwater quality caused by the existing agricultural operations. Recent testing of groundwater wells in the Pala Basin indicate well water in the area has levels of TDS, nitrates and sulfates exceeding state and federal drinking water standards. The RO system has the ability to reduce these high TDS nitrate and sulfate levels providing the ability to enhance and improve existing groundwater quality in the area. GLA constructed groundwater flow models of pre-development and after-excavation conditions in 1997 to estimate the rates of groundwater outflow into service drains included as part of the project. This model demonstrated that a maximum of 2,000 gallons of water per day would be collected in the subdrain system. This is equivalent to approximately .15 to .3 gallons per minute. Because the total volume involved in this change is small, the potential impact is not significant.

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

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 impacts to surface hydrology to a level of insignificance.

2. Facts in Support of Finding

Detailed studies were completed to evaluate surface hydrology impacts of the proposed project and potential impacts of the project on CWA pipelines in the area. In November 1999, Nolte Associates, Inc. completed a hydraulic and hydrology report evaluating impacts to the San Luis Rey River's 100-year flood elevations and channel velocities as the result of improvements included as part of the proposed project. In November of 1999 Dr. Howard Chang, an acknowledged expert in surface water flow and flooding, completed a fluvial study and bridge scour analysis to evaluate general scour and local scour for the bridge proposed as part of the project and to evaluate the impacts of the proposed road and bridge on SDCWA pipelines 1 and 2 as well as the San Luis Rey River. All major causes for scour, including hydraulic structures and sand and gravel mining in the river channel, were considered as part of this study. In 1999 Brian A. Stirrat & Associates completed a 100-year undeveloped and developed hydrology study analysis to evaluate the size of the perimeter drain needed for the proposed project to ensure adequate capacity in the perimeter drain for a combined rupture of SDCWA pipelines 1, 2 and future pipeline 6 in combination with a 100-year, 24 hour, storm event. These studies are contained in Appendix "H" of the FEIR. Surface hydrology impacts of the proposed project are also discussed in Section 4.4 of the FEIR

The San Luis Rey River valley extends to the east and west of the project site with major contributory canyons to the northwest and south of the project site. The water shed on the project site drains approximately 458 acres or approximately one tenth of one percent of the San Luis Rey River basin area. Surface water on the project site drains northward toward the San Luis Rey River.

The 100-year peak discharge for the San Luis Rey River is 30,000 cubic feet per second based on a FEMA study completed in June of 1997. The San Luis Rey River is a disturbed stream primarily due to dams and reservoirs and existing sand and gravel mining. Mining activities have created several major pits in the streambed. The former dairies on the project site were located on both sides of the river. Surface water in the area is utilized for industrial, municipal, domestic and agricultural purposes.

A number of design features have been incorporated into the project to reduce potential impacts to surface water to a level of insignificance. The new bridge will be designed to maintain the existing 100-year flood elevations at or below existing levels. The bridge structure will be founded on deep pile-supported foundations to protect against potential stream scour effects. Standard seat type abutments on pile footings, and five

intermediate bents will be used to support the bridge superstructure. Seat type abutments will be protected from local scour by a surrounding blanket of rock slope protection and deeply founded concrete piles. To reduce scouring (the removal of soil and rocks from streambeds and stream banks caused by moving water), rip-rap or other protective material (gabions, armorflex, etc.) will be used at the bridge abutments. The bridge deck will be constructed above the floodplain in the area.

The landfill working face and borrow/stockpile areas have been designed to direct surface water runoff away from the landfill working face. On-site drainage features have been designed to control storm water that falls on the landfill and surrounding support facilities so that it is captured by a perimeter drain and stored in desilting basins until tested and treated, if necessary. A berm will be constructed around the landfill deck perimeter that will intercept storm flows and direct water into down drains that will convey the flows to perimeter channels. The perimeter channels will be sloped to maintain positive flow and discharge to the desilting basins. These basins will act to reduce the amount of silt ultimately discharged from the landfill site. The storm water from surrounding facilities will flow directly into the perimeter drainage channels. The perimeter drainage channel has been designed to handle peak flows that occur under a combination of a 100-year, 24-hour flood in combination with a complete simultaneous rupture of existing SDCWA pipelines 1 and 2 and future pipeline 6. Water in the perimeter channels will flow to the desilting basins where it will be tested.

The down drains will be laid perpendicular to slope contours and located atop, and anchored into, the final landfill surface. They will extend up the completed side slopes of the landfill as the filling progresses. The down drains will have inlets at each bench to accommodate surface flows along the inside edge of the benches resulting from storm water from the landfill side slopes. Compacted earth berms around the deck perimeter and the working face will divert water around the refuse fill and into the down drains and perimeter drains. The borrow stockpile area drainage facilities will be graded to promote lateral runoff of precipitation into desilting basins at the low point of each facility. Runoff will not be allowed to flow over the slopes, thereby minimizing silt and erosion.

Pipelines 1 and 2 operated by the San Diego County Water Authority cross through the project site. The easement for these pipelines is located west of the landfill footprint. No part of the landfill footprint or the ancillary facilities included as part of the project are proposed within the easement area. However, the access road to be constructed as part of the project crosses Pipelines 1 and 2. Landfill equipment moving between Borrow/Stockpile Areas A and B will also cross over the pipelines. The SDCWA initially expressed concern that these crossing could damage the pipelines. To avoid this result, where the access road and the equipment moving between the borrow/stockpile areas and the landfill crosses the pipelines, engineered protection has been designed above the pipelines to ensure that no weight is placed upon the pipelines. Two reinforced concrete slabs will be placed at grade where the access road crosses the pipelines. Each approximately two-foot thick slab will be 26' wide by 64' in length placed on top of a layer of polystyrene. The three to four foot deep soldier beams at each end of the slab will absorb the weight of the vehicles crossing over the aqueduct preventing any weight being placed on the SDCWA pipelines. Similar bridges have been designed where equipment moving between the borrow/stockpile areas and the landfill crosses the pipelines. At these locations, two reinforced concrete slabs will be placed at grade, one centered over each pipeline. Each two-foot thick slab will be 28' wide by 40' in length placed on top of a layer of polystyrene. The three to four foot deep soldier beams at

each end of the slab will absorb the weight of the equipment as it crosses the aqueduct. With these design features, landfill equipment will not cause any damage to the existing pipelines where crossing is necessary.

At the request of the SDCWA, a scour analysis was completed by Dr. Chang to ensure that project work in the San Luis Rey River would not cause scour damage to the SDCWA pipelines. This scour analysis demonstrated that the project would not create any additional scour impacts to the pipelines. The SDCWA also expressed concern that blasting for excavation of the landfill footprint could potentially damage the pipelines. To evaluate this issue, a blasting analysis was conducted by Ogden Environmental and Energy Services on March 7, 1996. This analysis is included as part of Exhibit "J" of the FEIR. This blasting analysis determined that a blasting distance of 150 feet from the existing SDCWA pipelines was adequate to avoid damage to the pipelines. However, the SDCWA requested that the project agree not to perform any blasting within 500 feet of any SDCWA pipelines. This has therefore been adopted as a design feature for the project although it is not a required distance based upon the blasting study.

The SDCWA also expressed concern that a rupture of the SDCWA pipelines could adversely impact the landfill footprint or its ancillary facilities. To avoid this result, the perimeter drainage channel to be constructed around the project has been expanded to accommodate a 100-year, 24-hour storm event in combination with a complete rupture of existing San Diego County Water Authority Pipelines 1 and 2 and future Pipeline 6. The expanded perimeter drain will therefore accommodate all surface water that might be caused by a complete rupture of Pipelines 1, 2 and 6 thereby avoiding any damage to the landfill or ancillary facilities. With the design features and mitigation measures included as part of the project, no significant impacts to existing or planned SDCWA pipelines in the area will occur.

The applicant will be required to secure both a general construction storm water permit and a general industrial storm water permit under the requirements of NPDES. Issuance of this permit requires the applicant to eliminate non-storm water discharges, to develop and implement a storm water pollution prevention plan, and to develop and implement a monitoring and reporting program in accordance with the terms of the General Permit. A site-specific plan typically consists of all Best Management Practices ("BMPs") that will be implemented at a facility to reduce or eliminate the discharge of pollutants to storm water. Effluent limitations for discharge from an individual point source are included in the NPDES permits. Effluent limitations are placed on the quality and quantity of the waste discharge or effluent and can be either numeric and/or narrative limitations. These effluent limitations are based on applicable water quality objectives, U.S. EPA effluent guidelines and standards, beneficial uses of water in the area, and applicable state and federal regulations and policies.

The access road and bridge will be designed and constructed to maintain the existing channel velocities and flood elevations upstream and downstream of the modifications so that no changes in the San Luis Rey River will occur. This will avoid any increased flooding due to the project. The bridge included as part of the project has been lengthened so as to minimize the required volume of excavated fill material, and to avoid the need for approach fill along the banks of the main river channel. Both the bridge deck and the road surface have been designed above the 100-year floodplain so as to avoid any future flooding impacts to the road or bridge.

Initial grading of the landfill and associated facilities would partially eliminate groundcover on the project site thereby increasing the potential susceptibility to flooding influences. BMPs will be employed to reduce these potential flooding and erosion impacts. One of these BMPs includes the design and engineered use of a temporary drainage collection basin that is part of the Phase 1 excavation for the landfill. This temporary drainage collection basin will prevent flooding and control surficial erosion during the initial construction work until the permanent drainage structures are completed. Implementation of other BMPs such as silt fences, erosion control blankets, straw wattles, biofilter bags, and revegetation of disturbed slopes will reduce flooding and erosion impacts during construction to a less than significant level.

Peak storm water flows for the project site were estimated under post-development conditions based on the Rational Method Computer Program. This program determined that the post-development peak surface water flows from the site would be approximately 807cfs. This is a small increase over the 765 cfs occurring under existing conditions. This is not a significant increase in runoff due to the small percentage of runoff that Gregory Canyon contributes to the San Luis Rey River Basin. Consequently, no significant impacts would result from the new drainage patterns and the additional surface water runoff.

Although the Fenton Dike located north of the project site could be prone to flooding during large storm events in excess of a 10-year occurrence, this potential flooding has been incorporated into design features for the proposed project to ensure that perimeter drains included as part of the project can accommodate all potential surface water flow under worst case conditions, including any storm waters flowing over the Fenton dam.

The proposed landfill footprint and borrow/stockpile areas are not located within the designated boundaries of a 100-year floodplain. The landfill perimeter drainage network will collect all surface drainage entering the project site. Surface water runoff will then be directed to the on-site desilting basins where it will be tested. No significant flooding impacts will therefore occur. If testing indicates any contaminants, the surface water in the desilting basins will be cleaned up as required by the NPDES permit. This ensures that no contaminants of surface water will occur.

During operations, the bridge has the potential to be damaged during a major storm because of the scouring effect of floodwaters. To prevent this, the proposed bridge structure will be founded on deep pile-supported foundations to protect against potential stream scour effects. The bridge footings have been designed to safeguard against potential scour. To reduce potential scour effects, rip-rap and other protective materials will be used at the bridge abutments.

A final closure plan will be prepared and submitted to the appropriate regulatory agencies two years prior to the anticipated closure date of the landfill. The final closure plan will include a proposed final cover design configuration in compliance with current state and federal regulatory requirements. The actual final cover to be placed on the landfill will be determined by the Regional Board with water pollution prevention as a foremost consideration at the time that the cover is to be placed. The area will be graded to promote a drainage pattern as similar to the natural pre-developed drainage condition as possible. Permanent down drains, bench drains, rip-rap pads, and other structural drainage features will be installed. Permanent erosion control measures will also be installed. These drainage facilities will control run-on, run-off, and infiltration at

the landfill. These closure facilities will avoid any significant impacts to surface water resources after closure.

Before each rainy season, after each major storm, and monthly during the rain season, all drainage facilities will be inspected and any required maintenance performed to ensure that the drainage channels and desilting basins function properly. With design features included as part of the project and adopted mitigation measures, no significant impacts to surface water resources will occur from the proposed project.

E. TRAFFIC IMPACTS

1. Findings

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 traffic impacts caused by the project to a level of insignificance. However, cumulative traffic impacts to SR-76 between I-15 and the western boundary of the project site in the year 2020 with or without the project will be significant and unmitigable unless SR-76 is widened to four lanes as required by the Circulation Element of the County General Plan. 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 overriding findings and evidence.

2. Facts in Support of Findings

The County of San Diego has established a goal of maintaining LOS D 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 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 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 as contained in the RPDEIR resulted in greater project traffic than the assumed use of 24-ton transfer trucks. 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.

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 resulted 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.)

It is not likely that the project achieves 1,410 daily trips until the year 2015 based upon the amount of solid waste generated in Northern San Diego County in 1998 and SANDAG population projection forecast. In 1998, Northern San Diego County generated 770,860 tons of solid waste. Based upon SANDAG population projection forecast, Northern San Diego County will not generate 1,000,000 tons of waste annually until the year 2015 as indicated in Section 2.2 of the FEIR. These population projections suggest that the landfill will not have the ability to achieve the 1,000,000 annual tonnage limit, or 3,200 tons per day, until the year 2015. Consequently, at least until the year 2015 it is likely that the traffic analysis overstated project generated traffic by more than 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 SR79 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.

The traffic analyses completed by Darnell in November of 1999 and January 23, 2001 evaluated the existing traffic conditions, existing traffic conditions plus the proposed project and also evaluated two cumulative traffic impact scenarios. The first of these cumulative traffic scenarios evaluated the existing traffic conditions in combination with the project and other anticipated future development in the area that may significantly affect I-15 and the SR-76 corridor. The second cumulative analysis evaluated traffic conditions at year 2020 buildout with and without the four lane improvements to SR-76 included as part of the County's existing Circulation Element. Well established traffic methodologies utilized by Caltrans were utilized in evaluating these various traffic conditions. The higher street segment traffic counts taken in 1997 were utilized to reflect background traffic conditions although street segment counts taken in 1999 were lower than the 1997 counts. 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 passenger car equivalent 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 DEIR studies utilized a passenger car equivalent factor of 1.5. After release of the DEIR, a commentator suggested that a much higher passenger car equivalent ("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 traffic studies completed by Darnell demonstrated that all intersections, freeway ramps, and street segments within the study area are presently operating at LOS D or better based upon existing conditions. With the addition of project traffic, all intersections, freeway ramps, and roadway segments will operate at a level of service of LOS D or better. The project does not, therefore, result in any significant traffic impacts.

The traffic analysis also evaluated cumulative traffic impacts in the year 2020 based upon buildout of the area derived from SANDAG's Series 8 Model. The cumulative

traffic analysis evaluated cumulative traffic impacts to SR-76 in the year 2020 assuming no improvements are made to SR-76 and it remains as a two lane highway and based on the assumption that SR-76 is widened to four lanes as required by the County's existing Circulation Element and the adopted CalTrans plans.

The cumulative traffic analysis indicated that if SR 76 is not widened to 4 lanes by the year 2020, several segments of SR 76 will operate at levels of service below LOS D. These degraded levels of service occur with or without the project.

If the improvements designated in the County's Circulation Element are implemented and SR-76 is widened to four lanes, all roadway segments and intersections will operate at LOS B or better with all cumulative traffic in the year 2020.

Although assumptions utilized to evaluate project traffic have overstated the project's traffic impacts by approximately 675 daily trips, project traffic does not create any significant traffic impacts. However, the cumulative traffic impacts to SR 76 in the year 2020 if it is assumed SR 76 is not improved to 4 lanes is significant and unmitigable with or without the project as a result of other planned development in the area. Mitigation measure 4.5-3 requires the project to make a fair share contribution to alleviate these cumulative traffic impacts by requiring the project to dedicate right-of-way to 108 feet in width within the project boundary to facilitate the future widening of SR 76 to 4 lanes and the project has been required to pay the cost to provide 4 lanes on SR 76 from the western boundary of the project site to the project access road. Although the project's contribution to these cumulative traffic impacts could be considered insignificant since the project has made a fair share contribution to alleviate the cumulative traffic impacts in accordance with CEQA Guidelines §15130(a)(3), because the date these future improvements to SR 76 may be implemented is uncertain, the FEIR has concluded that the cumulative traffic impact is significant and unmitigable. 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 County 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 improved at the access road to provide adequate width for an eastbound deceleration lane, a westbound turn lane, and to improve site distance per CalTrans requirements. 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.

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.

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.

With design features included as part of the project and adopted mitigation measures, project traffic impacts have been reduced to a level of insignificance. However, cumulative traffic impacts in the year 2020 remains significant and unmitigable with or without the project unless SR-76 is widened to four lanes as currently contemplated in the County's Circulation Element and the adopted PRT for SR-76.

F. NOISE AND VIBRATION IMPACTS

1. Findings

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 a cluster of residences located on SR-76 between I-15 and the western property boundary shown on Exhibit 4.6-2 of the FEIR currently exceed the County's standard of 60 CNEL without the project. Project-generated traffic would increase noise levels to these residences by .01 to 2.5 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. Accordingly, the mitigation measure is considered infeasible and project noise to the described residences is significant and unmitigable.

The noise study also documented that cumulative noise impacts in the year 2020, with or without the project, would cause noise levels to exceed the County standard of 60 CNEL at the same cluster of residences located on SR-76 between I-15 and the western property boundary and to one residence just west of the project site. While a sound wall installed in the future right-of-way for the widening of SR-76 would reduce the project's cumulative contribution at the cluster of residences located on SR-76 to a level of insignificance, CalTrans has not yet indicated it will allow this sound wall to be installed. Accordingly, the mitigation is considered infeasible and the FEIR has concluded the

cumulative noise impact to the described residences is significant and unmitigable in the year 2020 with or without the project. However, a mitigation measure has been included that requires the project to contribute a fair share contribution for the construction of the sound wall that would mitigate this cumulative impact to a level of insignificance in the event CalTrans determines that such a wall is feasible to install in the future right-of-way.

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

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. 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.

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 CNEL at the boundaries of the Gregory Canyon site. The noise analyses demonstrated project noise will be well below the 65 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.

Ignoring the 65 CNEL set by Proposition C, construction noise is regulated by Section 3.6 of the County Noise Ordinance that limits construction equipment noise to 75 dBA maximum at the property line adjacent to a residential use. 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 Leq. The daytime standard for residential uses is 50 dBA. In accordance with the Noise Ordinance, these two standards were averaged to arrive at an arithmetic mean of 62.5 dBA as the noise standard for operational noise pertaining to the project. This 62.5 dBA

Leq 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 CNEL as the traffic noise standard for sensitive areas such as residential areas. A noise standard of 60 dBA 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.

As a result of comments received on the draft EIR, 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 Leq at the southern boundary of the project site to 53.9 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 CNEL. These homes are currently exposed to noise levels that exceed the County's Noise Element limit (60 CNEL) without the project. (Exhibit 4.6-2).

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 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 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 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 Leq 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 Leq 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 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 Leq 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 or reduce the amount or size of construction equipment so as to maintain construction noise levels at or lower than 62.5 dBA at the project's property line.

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 to 62.4 dBA at the property line adjacent to residential uses. This is within the noise limit of 62.5 dBA Leq 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 Leq 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 Leq 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 Leq 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 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 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 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 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 standard in the nearest vireo and flycatcher habitat if noise monitoring determines that noise levels are below 60 dBA 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 standard for the closest wildlife or wildlife habitat.

Noise testing indicated that approximately 3.0 acres on site and 2.4 acres offsite of vireo and flycatcher habitat would be potentially impacted by traffic noise on the landfill site caused by the project. To mitigate this impact, a mitigation measure has been included requiring a total of 3.0 acres of vireo and flycatcher habitats, .5 acre of mule fat scrub and 2.0 acres of southern willow scrub to be created on the landfill site in dedicated open space in an area that would not be affected by noise levels equal to greater than 60 dBA. The project is also required to purchase and conserve in perpetuity an additional 2.4 acres of vireo and flycatcher habitat offsite that would not be affected by noise levels of 60 dBA or greater as a result of project traffic. A conservation easement will be placed across the off-site mitigation area to permanently protect the vireo and flycatcher habitat.

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 Leq 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 habitat does not exceed 60 dBA 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 Leq 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 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 in all vireo and flycatcher habitat.

The noise analysis indicated that noise levels from rock crushing and tire shredding associated with the project would not exceed 62.5 dBA 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 and 60 dBA 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. 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 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 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.

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.

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 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. 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.

Noise testing also indicated that cumulative noise impacts caused by future traffic in the year 2020 will cause the same cluster of homes located on SR-76 between I-15 and the western property boundary and to one home west of the project site to exceed the County standard of 60 CNEL with or without the project. While sound walls could reduce the project's cumulative contribution at these locations to a level of insignificance, it would be necessary to install this sound wall within the future widening of SR-76 and CalTrans has not presently given its consent to the placement of this sound wall with the right-of-way. Although this mitigation measure has been included as part of the requirements for the project, the FEIR has concluded that noise impacts generated by cumulative traffic in the year 2020 is significant and unmitigable. 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.

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. A small group of homes located adjacent to SR 76 are currently experiencing noise levels exceeding the County standard of 60 CNEL without the project. The project would contribute incrementally to this degraded noise environment. Accordingly, project generated traffic and cumulative traffic results in significant and unmitigable impacts to this small group of homes near SR 76 currently experiencing noise levels exceeding the County noise standard.

G. AIR QUALITY AND AIR TOXIC HEALTH RISK IMPACTS

1. Findings

Pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required and incorporated into the project which will mitigate all potentially significant air quality impacts caused by the project, other than PM₁₀ and NO_x to a level of insignificance. Project and cumulative PM₁₀ and NO_x impacts are significant and unmitigable even after adoption of all feasible mitigation measures. The LEA finds that all feasible mitigation measures have been adopted to reduce the PM₁₀ and NO_x impacts caused by the project. The LEA further finds that changes or alterations have been required to the project that will mitigate all potentially significant air toxic health risks to a level of insignificance in accordance with CEQA Guidelines §15091(a)(1). The LEA finds that the benefits of the project outweigh its significant impacts as stated in more detail in the overriding findings.

2. Facts in Support of Findings

The RDEIR contained a detailed analysis of air quality and air toxic health risks of the project. During circulation of the RDEIR, the 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 and recirculated as part of the RPDEIR. 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 RPDEIR.

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 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 exceedence 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.

H. AGRICULTURAL RESOURCE IMPACTS

1. Finding

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 potentially significant impacts to agricultural resources to a level of insignificance.

2. Facts in Support of Finding

The project site consists of primarily undeveloped or vacant land. Two dairies have been previously operated on the project site and occupy approximately 88.3 acres. The Lucio Dairy was abandoned and closed in 1986. The Verboom Dairy was abandoned and closed in 2001. Agricultural operations in the area consist of citrus and avocado production.

The California Land Conservation Act of 1965, known as the Williamson Act, authorizes counties to establish agricultural preserves. No portion of the project site is currently under a Williamson Act contract or in an agricultural preserve. An analysis of soils on the project site indicates there are approximately 76 acres of the 1770 acre project that contain prime agricultural soils. Although the project site contains approximately 76 acres of prime agricultural soils, the open space area of the project site (at least 1313 acres) will include approximately 68.4 acres of prime agricultural land. This residual open space area could be utilized for agricultural purposes. The 76 acres of prime agricultural land that will be removed by the project are not currently being utilized for agricultural purposes. An analysis of the inventory of agricultural land available in the County indicates there are approximately 131,630 acres of prime agricultural soils remaining in San Diego County. Consequently, even if the 68.4 acres of prime agricultural land preserved as open space on the project site is not used for agricultural purposes, loss of 76 acres of prime agricultural land on the project site is not significant either locally or regionally. Large contiguous areas of prime soils remain available for cultivation in both the project vicinity and in the County regionally. Within a 2-mile radius of the site approximately 1280 acres of prime agricultural soils are present.

Both the California Department of Food and Agriculture and the County of San Diego have developed a methodology to evaluate whether the loss of agricultural land is significant. This methodology evaluates eight separate criteria including the assessor's parcel size, the soil conservation service soil classification, water availability, crops suitability, existing land uses, adjacent land uses, agricultural preserve potential, and economic viability for agricultural use. An analysis of these factors yielded a score of 47 for the prime agricultural lands on the project site that is substantially lower than the significance threshold figure of 55-60 used by the County to determine that an agricultural impact is significant.

At its nearest point, the landfill footprint is located approximately 3030 feet or 0.6 miles from the nearest agricultural contract lands which are adjacent to the project site's western property line. Wind flow information included as part of the air quality analysis demonstrated that the predominate wind pattern on the project site is from the northwest, away from the closest agricultural operations west of the project site. With implementation of project design features to control dust and the 0.5 mile distance between landfill operations and the nearest agricultural uses, the project will not create significant dust impacts on these agricultural uses and will be compatible with on-going agriculture in the surrounding area.

As noted previously, agricultural operations in the area consist of avocado and citrus production. A detailed literature search of California Air Resources Board five year reports on air pollution damage to California crops for 1985, 1990 and 1995 did not list avocados or citrus as crops damaged by dust. A microclimate analysis indicated that the maximum expected temperature change from the project would be a drop of 0.18 degrees Fahrenheit. This is not a significant temperature change that will cause any impacts to surrounding agricultural operations or crops.

In conclusion, the data showed that the 76 acres of prime agricultural soils which will be lost as part of the project will be preserved and could be utilized in the open space area, these soils are not presently being utilized for any agricultural operations, the 76 acres lack the requisite criteria to be good quality soils for a viable agricultural operation and there is a sizeable inventory of remaining agricultural lands existing in the County and within a 2 mile radius of the project so loss of the 76 acres will not be significant. Dust impacts associated with the project will not impact surrounding agricultural lands due to prevailing wind patterns, the distance separating the landfill from the nearest agricultural operations and based upon research showing that dust does not damage or harm avocado or citrus crops. Accordingly, impacts of the project upon agricultural lands are insignificant. Project design features to minimize fugitive dust are discussed in the air quality section of these findings. Since no significant adverse impacts to agricultural resources will occur, no mitigation measures are necessary.

I. BIOLOGICAL RESOURCE IMPACTS

1. Finding

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 biological resources to a level of insignificance.

2. Facts in Support of Finding

Detailed biological surveys of the project site and surrounding areas have been completed by biology experts over a period of 11 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. Finally, updated surveys for southwestern arroyo toad, least Bell's vireo and southwestern willow flycatcher were completed in 2003

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.

The biological surveys documented that construction, operation, and closure of the project would significantly impact the following sensitive resources prior to mitigation: (1) 178.8 acres of coastal sage scrub; (2) 44.1 acres of coastal sage scrub/chaparral; (3) 27 acres of coast live oak woodland; (4) .2 acre of native perennial grassland; (5) 2.4 acres of southern willow scrub; (6) 0.2 acre of mule fat scrub; and (7) 0.2 acre of open channel (floodplains). The biologic surveys did not document that the project would significantly impact any wetlands or waters of the United States.

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.

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.

The biological surveys indicated that the project would impact 178.8 acres of coastal sage scrub and 44.1 acres of combined coastal sage scrub and chaparral habitat for California gnatcatchers. 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 preserve a total of 445.8 acres of coastal sage scrub and coastal sage scrub/chaparral on-site in dedicated open space. This habitat preservation area will include 88.2 acres of coastal sage scrub/chaparral and 357.6 acres of coastal sage scrub. The mitigation acres will be preserved in perpetuity as on-site open space.

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 2.4 acres of southern willow scrub and 0.2 acre of mule fat scrub. 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 creation of in-kind habitats on the landfill site in dedicated open space consisting of 9.6 acres of southern willow scrub and .8 acre of mule fat scrub in accordance with the 4:1 mitigation ratio recommended by the USFWS. A mitigation measure has also been adopted prohibiting removal of any southwestern willow flycatcher or least Bell's vireo habitat during their breeding seasons. 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 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 during the breeding season by requiring temporary noise barriers or operational changes to ensure noise levels do not exceed 60 dBA.

Impacts to 0.8 acre of open channel/floodplain will be mitigated through implementation of the habitat enhancement plan described below. Impacts to 27 acres of coastal live oak woodland will be mitigated at a 2:1 ratio as requested by the USFWS through a combination of on-site preservation of 30.0 acres of in-kind habitat and the off-site acquisition of a minimum of 24.0 acres of existing coastal live oak woodland. If an increase in on-site preservation occurs, the amount of off-site habitat acquisition may be reduced. A conservation easement will be placed across the off-site mitigation area to permanently protect the resource. If possible, individual oak trees shall be salvaged from impact areas and transplanted to appropriate open space habitat on-site.

Impacts to 0.2 acre of native perennial grassland will be mitigated at a ratio of 2:1 as requested by the USFWS by the acquisition of 0.4 acre of in-kind habitat in an unincorporated area of San Diego County and a conservation easement will be placed across the mitigation area to permanently protect the resource. A temporary construction fence will be erected around all of the dedicated open space area, which will be marked with signs to protect the mitigation areas.

A total of 25 Engelmann oaks would be directly impacted as a result of the project. (MM4.9-2) A 3:1 minimum replacement acreage (based on canopy area) of Engelmann oak trees shall be preserved within the same acquisition parcel for coast live oak woodlands, if possible (see MM4.9-1d). 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. This acreage shall then be subtracted from the coast live oak woodland mitigation requirement to avoid duplicate mitigation. A conservation easement shall be placed across the off site mitigation area to permanently protect the resource.

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. The project would result in the loss of approximately 3.1 acres of toad riparian breeding habitat from construction of the bridge. However, only 0.005 acre of this would be a permanent impact due to the bridge pilings. The project would also result in the loss of approximately 306 acres of potential upland habitat for the toad. (FEIR 4.9-37). If only impacts to suitable

upland areas on the site are considered, the potential loss of upland habitat would be approximately 32 acres.

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. 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 loss of approximately 3.1 acres of arroyo southwestern toad riparian breeding habitat from construction of the bridge, a mitigation measure has been adopted requiring the replacement of this habitat at a 4:1 ratio as recommended by the USFWS. Additional arroyo toad habitat will be provided within the habitat enhancement area described in more detail below. The potential loss of upland habitat for the arroyo toad has been mitigated to a level of insignificance by preserving approximately 243 acres of sandy upland habitat on the project site suitable for arroyo toads and by creating approximately 970 acres of other upland habitats on the project site that will be preserved as dedicated open space. 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.

The project would impact approximately 2.6 acres of southern willow scrub and mule fat scrub, which is habitat for the least Bell's vireo and southwestern willow flycatcher. This has been mitigated by creating 10.4 acres of this habitat on the landfill site. 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 60-dBA level. Noise barriers are to be constructed as necessary to ensure that daily noise levels stay below the 60 dB threshold. Adopted mitigation measures prohibit use of the low-flow crossing during the breeding seasons for the vireo and southwestern willow flycatcher. 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.

Approximately 4.8 acres on-site and 4.6 acres off-site of 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 insignificance by requiring 4.8 acres of vireo and flycatcher habitats, be created on the landfill site and dedicated open space in an area that would not be affected by noise levels equal to or greater than 60 decibels and by requiring the project applicant to purchase and conserve in perpetuity 4.6 acres of off-site vireo and flycatcher habitat not affected by noise levels of 60 decibels or greater. To ensure that noise levels from landfill equipment and from use of borrow stockpile A do not create noise levels exceeding 60 decibels 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.

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. Human activity associated with construction and operation of the project has been concentrated on approximately 308 acres of the 1769 acre site thereby leaving a large block of open space area for wildlife movement. At least 1313 acres of the project site will be dedicated as open space to permit wildlife movement and to preserve habitat and species on the project site.

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 14.8 acres of wetland habitat and 88 acres of upland terrace habitat needed by the three protected species. In addition, 69 acres out of approximately 75 acres (92%) of 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.

After implementation of the habitat enhancement plan, one mile of the San Luis Rey River and adjacent upland areas totaling approximately 172 acres will be improved by habitat creation and enhancement. This habitat will be preserved in dedicated open space. The 14.8 acres of wetland habitat being created by the plan will include 13.0 acres of southern willow scrub and 1.8 acres of mule fat scrub used as habitat by both the least Bell's vireo and southwestern willow flycatcher. 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). Mitigation measures included in the FEIR required the project to mitigate for the loss of 2.4 acres of southern willow scrub and .2 acres of mule fat scrub due to the presence of flycatchers identified in prior surveys. (FEIR pg. 4.9-44, 45). 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.

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

1. Finding

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 on paleontology resources to a level of insignificance.

2. Facts in Support of Finding

Paleontology experts from the Department of Paleontological Services at the San Diego Natural History Museum were retained to evaluate paleontology impacts of the project. A literature search was conducted to evaluate previous reports of fossils or traces of prehistoric plant and animal life on the project site. A field survey of the landfill footprint was carried out by museum staff to verify the results of the literature and records search. A paleontological resource assessment was completed by paleontology experts at the Natural History Museum in December 1997. This assessment is included as Appendix "M" of the FEIR.

No fossils were identified or have ever been reported from the metamorphic rocks mapped on the western flanks of Gregory Mountain within the proposed landfill footprint and no fossils were observed in these deposits during the field survey. Although there is no record of any fossils being recovered from Quaternary alluvial deposits within the project boundary, the older alluvium occurring at depths may be old enough to contain vertebrate remains. Although it is unlikely that fossils will be located in these alluvial deposits, mitigation measures have been adopted to provide monitoring and handling of these resources, if discovered. No fossils were observed in deposits of colluvium during the field survey. The colluvium is of such recent age that it is highly improbable that any fossil material would be preserved in it.

A mitigation measure has been adopted to ensure that resources that might be identified in the Quaternary alluvium are preserved. Prior to issuance of the grading permit by the County, the applicant will retain a qualified paleontologist to monitor excavations on site. Initially this monitoring will occur eight hours per week during earth moving activities in the Quaternary alluvium. Weekly letters shall be prepared by the paleontological monitor and provided to the Department of Environmental Health. If unique fossils are discovered in the Quaternary alluvium, the paleontologist will recover them. If an extended salvage period is required, the paleontologist will be allowed to temporarily direct, divert, or halt grading to allow recovery of fossils in a timely manner. The paleontologist will clean, repair, and catalog any fossil remains collected during monitoring and salvage operations. Prepared fossils, along with a copy of all pertinent field notes, photos, and maps, will be donated to a scientific institution with permanent paleontological collections such as, the San Diego Natural History Museum. Donation of the fossils shall be accompanied by financial support from the applicant for initial specimen storage. The paleontologist will prepare regular biannual progress reports during earth moving activities in the Quaternary alluvium and a

final summary report that outlines any fossils discovered. These reports will include discussions of the methods used, stratigraphic sections exposed, fossils collected, and the significance of the recovered fossils. These reports will be submitted to the Department of Environmental Health.

Based upon the paleontological investigation of the project site, it is extremely unlikely that fossils having historical significance will be discovered during the grading operations. However, mitigation measures have been adopted to ensure the proper cataloging and recovery of any fossils if they are discovered in a Quaternary alluvium. These mitigation measures are discussed in Section 4.10 of the FEIR. With the adopted mitigation measure, no significant impacts to paleontological resources on the project site will occur.

K. ARCHEOLOGICAL AND CULTURAL RESOURCE IMPACTS

1. Finding

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.

2. Facts in Support of Finding

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.

L. IMPACTS TO ETHNOHISTORY AND NATIVE AMERICAN INTERESTS

1. Findings

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 unmitigable. The LEA finds that all feasible mitigation measures have been adopted to reduce the project impacts upon Medicine Rock and Gregory Mountain. The LEA finds the benefits of the project outweigh its significant and unmitigable impacts as described in more detail in the overriding findings.

2. Facts in Support of Findings

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 PM₁₀. 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 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 to a high of 62 dBA. Project noise impacts to Medicine Rock when combined with existing ambient noise levels range from a low of 43.4 dBA to a high of 62.4 dBA. 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 Leq 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 62.5dBA.

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. 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.

M. PUBLIC SERVICES AND UTILITY IMPACTS

1. Finding

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 public services and utilities to a level of insignificance.

2. Facts in Support of Finding

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 under grounded 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.

Water necessary to serve the project is available from existing on-site wells. These wells have historically provided this site with approximately 465 acre-feet per year of water. During construction the project will require about 165 acre-feet per year of water. During operation, the project will require approximately 193 acre-feet of water per year. Testing of the on-site wells prior to completion of the FEIR indicated they have the capacity to produce 1,000 acre-feet per year of water. (FEIR pg. 4.3-16) This is more than sufficient to meet the project's needs. The project will reduce historical water demand by approximately 270 acre-feet per year.

Several commentators have recently written letters to the LEA asserting that the project may be unable to utilize riparian water derived from existing or future wells on the project site to fulfill the project's water needs. These commentators have also asserted that a water supply assessment is mandated for the project under Water Code §10915(g).

Several comments have been received suggesting that the sole source of riparian water available to the project is water from the San Luis Rey River. In actuality, the project has three (3) sources of riparian water available to it as follows: (1) riparian water from the San Luis Rey River; (2) riparian water from the subterranean stream; and (3) percolating groundwater, as discussed in the FEIR pg. 4.3-8 thru 4.3-10. . Each of these sources of water is discussed in some detail in the FEIR. The San Luis Rey River passes through a

number of parcels included as part of the project. (FEIR Exhibit 3-2). Riparian water from the San Luis Rey River is available to serve these parcels.

The FEIR for the project analyzed groundwater resources on the site and determined that these consisted of both an alluvial aquifer that extends to the landfill footprint and a bedrock aquifer that derives its water from percolation. Wells in the alluvium have yields from 10 to 400 gallons per minute. (FEIR pg. 4.3-2, 4.3-8). As noted in the FEIR, the State Water Resources Control Board ("SWRCB") has determined that groundwater in the alluvium of the Pala Basin is flowing in a subterranean stream. (FEIR pg. 4.15-9; SWRCB Decision 1645 (2002)). The alluvial basin for this subterranean stream on the project site remains an available source of riparian water for the project. The third source of riparian water available to the project is percolating groundwater not within the alluvial basin. Percolating groundwater may be transported across parcel lines on the project site to fulfill the project's water needs without a permit from the State Water Resources Control Board.

Both the detailed hydrogeologic investigation of the project site and the FEIR document the existence of fractured bedrock on the project site that provides appreciable percolating groundwater. The FEIR notes that there are two distinct groundwater zones within Gregory Canyon, an alluvial aquifer, and "a bedrock hosted by the fractured tonalite that forms a substrate of the canyon". (FEIR pg. 4.3-8). Twenty wells drilled in the fractured bedrock within the landfill footprint had estimated yield rates of 5 to 20 gpm. (GLA, Hydrogeologic Investigation (Phase 5, 1997) pg. 34 (FEIR Appendix "G"); FEIR pg. 4.3-8). Each of the parcels that comprise the Gregory Canyon landfill has one of these three sources of riparian water available to them. A more detailed discussion of the riparian water issue can be found in Attachment C-2.]

It should be noted that the project has three (3) other sources of water available to it beyond the three sources of riparian water described above. The first source of this water is appropriative water based upon the project's application for appropriation filed with the SWRCB on October 17, 1991 (Application No. 30038). (FEIR pg. 4.15-9). The second source of water is water collected from the subdrain included as part of the project. The third source of water available to serve the project is through the use of water trucks to deliver water to the site. Several companies that truck water have been contacted and have verified their ability to provide all water needed to serve the project during construction and operation.

Data contained in Exhibit 4.3-2 of the FEIR indicates that there are ten existing wells located outside the landfill footprint. An additional fifteen wells have been drilled within the proposed landfill footprint and along the periphery of the site. (GLA, Hydrogeologic Investigation (Phase 5, 1997) pg.34). Testing of these wells prior to certification of the FEIR indicated these existing wells have the capacity to generate approximately 1,000 acre-feet per year of water. (FEIR pg. 4.3-16). This far exceeds the project need of a maximum of 165 acre-feet per year during construction and a maximum of 193 acre-feet per year during operations. (FEIR pg. 4.3-16). Each of these wells is clearly located in an alluvial aquifer or is derived from percolating groundwater that may be transported across parcel boundaries for the site. [Case law says all parcels that touch a stream have riparian rights to use an equal share of water in the stream. The same is true for underground subterranean streams. Percolating groundwater thru fractured bedrock may be used on any parcel that is in the Pala Basin. The entire landfill site is in the Pala Basin]There is no evidence that one of the many sources of water available to the

project cannot adequately accommodate all of the water needs of the project. In the unlikely event that none of these sources of water are available to serve the project, water will be trucked to the site.

One commentator has asserted that a water supply assessment is 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 for the project contained a detailed analysis of the water supply needs of the project and the alternative sources available to supply these needs.

The project components include a 20,000-gallon water tank that will be provided on-site near the ancillary facilities area. The water tank will be continuously refilled as water is used to maintain 20,000 gallons 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 will provide adequate water storage for dust control and can also be utilized for fire protection. 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

1. Finding

Pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required and incorporated into the project, which will mitigate all potentially significant socioeconomic impacts to a level of insignificance.

2. Facts in Support of Finding

The CEQA Guidelines focus on physical affects on the environment and indicate that economic or social affects of a project will not be treated as significant effects on the environment. (CEQA Guidelines §15131(a)). Nonetheless, the FEIR analyzed population, housing, employment, and income to determine whether any secondary impacts would be caused by the economic and social impacts of the project. In addition, a demographic distribution analysis was completed to evaluate whether the project impacts fell upon a lower income group or any race in a disproportionate fashion. This analysis is contained in Appendix "Q" of the FEIR.

Construction of the project would last approximately 9-12 months and create 30-40 temporary construction jobs. Project-related construction workers will be drawn from the larger San Diego Region and are not expected to be concentrated in any one community. Since the additional 30-40 temporary construction jobs created by the project is small and workers will be drawn principally from persons already residing in the San Diego Region, no short-term impacts to population or housing will occur. The additional 30-40 temporary construction jobs created by the project will create a positive economic impact by providing additional employment to workers in the region.

It is estimated that approximately 20 new full-time plant operations jobs will be required to operate the landfill at project buildout. Assuming an average household size of 2.78 persons, a maximum of approximately 56 new persons may permanently move to the area or to neighboring areas. However, most employees will be drawn from communities neighboring or adjacent to the project area. Even if all 56 employees for full-time plant operation jobs move to the Pauma Region, this would represent only a 1.0 percent increase in the total 1998 population within the Pauma Region. This increase in population can be easily accommodated within the residential community surrounding the project site. Operation of the project will not adversely impact housing in the area. Since the project will generate approximately 20 new operational jobs, this translates to a need for a maximum of 20 additional housing units. The 1998 Department of Finance estimates a 6.2% vacancy rate for San Diego County. This vacancy rate is adequate to accommodate new residences without any detrimental affects to the County's housing availability. Existing housing and rental units are available to meet the future demand of project-generated residents. New jobs created by operation of the project would provide a beneficial impact to the local economy as well as serving to increase employment opportunities within the Pauma Sub-region. Overall, the project will provide positive economic and employment affects to the project area, local economy and local household incomes.

The Pauma sub-region presently has inadequate jobs to accommodate the existing residents. In 1990, the sub-regional job/housing ratio for the Pauma sub-region was .41. The projected trend for the job/housing ratio in 2005 and 2020 for the sub-region is .61 and .38 respectively. This indicates that the Pauma sub-region is housing rich and job poor. By creating jobs, the project will help alleviate the sub-regional job/housing imbalance.

At present there is one occupied residential dwelling on the project site, used by the site caretaker. Other prior residents have already relocated with the Verboom Dairy. Therefore, no significant displacement impacts will occur.

In response to comments received on the draft EIR, a detailed demographic study was completed to evaluate whether project impacts fell disproportionately upon any racial or

ethnic minority groups, including Native Americans, or upon the lower income component of the population. This demographic distribution analysis was completed in December 1999 and is included as Appendix "Q" of the FEIR. The demographic distribution analysis showed that "minorities" constituted over 60% of the population within the Pala-Pauma Sub-region, in comparison with 30-35% of the population within Valley Center and the Fallbrook Plan Areas. Within this minority group in the Pala-Pauma Sub-region, Native Americans represent a substantial portion of the minority population. The analysis evaluated the project's environmental impacts upon these three sub-regions to determine whether the impacts were being borne predominately by Native Americans within the Pala-Pauma Sub-region. The demographic analysis showed that project impacts did not fall disproportionately upon any of the three sub-regions. To the contrary, these impacts were generally experienced equally in each of the three sub-regions. It was therefore concluded that project development would not disproportionately impact minority communities or Native Americans.

The FEIR therefore concluded that the project would not have any significant socioeconomic impacts. No mitigation measures were necessary because no significant socioeconomic impacts will occur.

O. VISUAL IMPACTS

1. Findings

Pursuant to Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required and incorporated into the project which will mitigate all potentially significant visual impacts caused by the project to a level of insignificance, other than visual impacts caused by the landfill face and slope. Visual impacts caused by the landfill footprint are significant and unmitigable. The County LEA finds that all feasible mitigation measures have been adopted to reduce the significant visual impacts caused by the landfill footprint. The LEA finds that the benefits of the project outweigh its significant and unmitigable impacts as discussed in more detail in the overriding findings.

2. Facts in Support of Findings

A visual impact analysis was completed by KTU&A to evaluate visual impacts of the project in December 1998. Photographs were taken from a number of points within a three-mile radius of the project site. From these photographs, key views of the project site were selected based upon a weighing that considered the greatest number of potential viewers, the sensitivity of the viewers, the highest scenic quality found within the project vicinity, any existing view corridors, and the most sensitive areas subject to change. Computers and visualization software were utilized to simulate key views during various phases of the project.

The Gregory Canyon site is located in inland North County of the south side of the San Luis Rey River and along SR-76. The landfill site is approximately three miles east of the intersection of I-15 and SR-76. The community of Pala is approximately 2.4 miles to the northeast. Significant visual disturbances exist throughout the project area. These disturbances include sand and gravel mining in the flood plain, pasture and cropland in the upland areas, and orchard development on the hillsides. Development in the area also includes single-family residences on the hills north of the San Luis Rey River.

The visual analysis determined that the project would not have any substantial visual impact on any scenic vista since there are no designated scenic vistas in the area. The project would not substantially damage scenic resources within a state scenic highway since SR-76 is not a designated scenic highway. The project would not create a new source of substantial light or glare because project operations occur primarily during daytime hours and the night lighting is limited to low-level night lighting for security purposes only. Views of the landfill footprint from travelers on a small portion of SR-76 would, however, degrade the existing visual character of the site and its surroundings. Other project elements would be screened or are designed to blend in with the environment so that no visual impacts will occur. A number of mitigation measures have been adopted to reduce visual impacts from the project, other than the landfill footprint, to a level of insignificance. A conceptual landscape plan has been prepared by licensed landscape architects so that all components of the project except the landfill face will be screened from view.

A number of mitigation measures have also been adopted to reduce, but not eliminate, visual impacts caused by the landfill face and slopes to travelers on SR-76. Existing trees and shrubs along SR-76 will be saved and supplemented with similar species to create a naturally landscaped transportation corridor through the property where appropriate to screen the landfill. All on-site highway frontage along the south side of SR-76 will be planted on-site with a minimum 20-foot wide screen of native or indigenous trees and shrub species. Major tree groupings and transplants as well as native revegetation and rock outcrop placement will be completed along the edges of the landfill. The transitional blending of the flat landfill face will be undertaken along the bottom and perimeter edges where it meets the existing terrain. This extension of natural vegetation communities will help break the geometric lines of the landfill and will help the face blend with the surrounding hillsides. Permanent slopes will be stabilized with appropriate native plant seed mix and container stock around the edges.

Any landfill slope that would remain unchanged beyond one full year will be hydroseeded or revegetated. Drainage and methane extraction structures and pipes will be painted or be made of materials that fit into the local color environment and that match adjacent textures. Brow ditches will be constructed with outside bench lips slightly higher than inside edges. Culverts and other pipelines connecting brow ditches will be painted to blend with landfill slopes. A natural brown, beige or sand colored staining will be used so that the ditch will not contrast with adjacent colors. The benches and lifts will be graded to minimize the significant landform quality impact. Blending of created land forms with adjacent land forms can be achieved by manipulating the land form to resemble or meld with its surroundings, planting to create the pattern resembling the adjacent vegetation matrix and its colors, and incorporating boulders into the final phase to create the rocky texture of the surrounding hillsides. Areas within public view will be revegetated to mitigate for the loss of visual resources in accordance with the landscape plan. The revegetation will contain both oak woodland habitats and riparian plantings.

Additional mitigation measures have been adopted to reduce other visual impacts to a level of insignificance. Large riparian trees along with the associated under story found within the riparian zones along the access road and bridge will be planted to screen the project elements and the excavation in accordance with the landscape plan. Landscaping will be installed immediately after completion of the access road and bridge. Since the ancillary facilities would contrast and be visible to many of the SR-76 viewers, rock outcrops removed from the landfill footprint will be placed in strategic locations around the facilities

areas. Areas adjacent to the ancillary facilities area next to the water tank will be planted with mature trees in major tree groupings to screen visual access to those structures. Disturbed slopes will be revegetated with native species. The facilities and miscellaneous structures will be painted or be made of materials that fit into the local color environment and will also match adjacent textures. Since the western desilting basin would cut into the facing slope and be visible to SR-76 viewers, the landscape plans will include vegetative screening on the side slopes and in areas below the crest to hide the grading for the western desilting basin. Landform screening will be implemented, including major tree groupings, at the edges of Borrow/Stockpile Area A to help block the views of the area. The project-grading plan will include contouring of landform to help blend the general forms of landmasses on part of the lower stockpile areas. General grading and curvilinear shapes will be used to help blend top and side slopes in with the natural topography. Large undifferentiated flat slopes will be avoided. After initial construction, Borrow/Stockpile Area A will be revegetated. Contrast, texture, and color matching will be achieved in all revegetation. All areas will be replanted with native plant materials that will decrease the amount of value and color contrast with surrounding areas. Similar mitigation measures have been adopted to screen the view of Borrow/Stockpile Area B from drivers on SR-76. Since the maintenance roads and graded pads associated with relocation of the SDG&E towers would be visible to a number of highway viewers, the pad areas needed for the relocated power line towers will be minimized. Cut slopes will be permanently revegetated and landform-grading techniques will be used to blend the pads in with adjacent landforms. The cut face of these pads will be sculpted to allow rock outcrops to remain and be prominent. Additional rock outcrops will be placed where they do not interfere with the access and maintenance requirements of the towers.

The visual stimulation analysis demonstrated that with these mitigation measures the project would not create any significant visual impacts except the landfill face and slope. The landfill face and slope will remain visible to some travelers on SR-76 notwithstanding the mitigation measures that have been adopted. All feasible mitigation measures to reduce these visual impacts to a level of insignificance have been adopted. In order to reduce this visual impact further, it would be necessary to obtain the consent of CalTrans to install off-site landscaping within the right-of-way for SR-76 west of the project site. To date CalTrans has not given its consent to install this landscaping. For this reason, the FEIR concludes the visual impact caused by the landfill face and slopes remains significant and unmitigable notwithstanding the mitigation measures that have been adopted.

P. HUMAN HEALTH AND SAFETY IMPACTS

1. Finding

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 human health or safety to a level of insignificance.

2. Facts in Support of Finding

During construction of the project, falling rocks due to seismic events or blasting could injure landfill personnel. To avoid this potential impact, a design feature has been adopted as part of the project requiring a qualified geologist to assess rock fall hazards prior to blasting. If a boulder appears to be insecure, landfill personnel will dislodge it using pry bars or use equipment to dislodge the boulder. This will ensure the blasting does not

create a safety risk to workers or equipment. During operation of the project, landfill gas will be produced by the anaerobic composition of the organic matter and solid waste. The methane component of landfill gas is potentially explosive when it reaches a 5-15% range of concentration in the air. To avoid this potential impact, a landfill gas collection system will be installed at the project site. The disposal area will be lined with a composite liner system with a vertical gas well and/or horizontal trench collection system. Migration probes will be installed along the boundary of the landfill footprint to monitor for the subsurface migration of landfill gas. Engineering safeguards will be supplemented by maintenance of a minimum distance of 1,000 feet between refuse fill and habitable structures. With implementation of monitoring mitigations and engineering safeguards, no significant impacts from landfill gas migration are anticipated. Water quality protection is discussed in detail in the section of these findings governing hydrogeology and surface hydrology.

Although hazardous waste will not be accepted at the project site, some household hazardous materials may be inadvertently brought to the landfill. A hazardous waste exclusion program has been included as part of the project to identify and remove household hazardous waste inadvertently brought to the landfill site. Non-residential customers will receive notices in the mail informing them that hazardous wastes are not accepted at the project site and informing them of federal and state penalties for the improper disposal of hazardous waste. A random load-checking program will be implemented at the project site. Staff members trained in the identification of household hazardous waste will randomly check loads that arrive at the landfill site. If hazardous or unacceptable wastes are identified, they will be returned to the driver. The party responsible for transporting the waste to the landfill will be notified that the wastes were illegally deposited at the site and will be charged for the disposal costs incurred. If unacceptable waste is found in a load prior to the vehicle entering the facility, entrance to the site will be refused and the driver will be informed to dispose of the waste at a permitted hazardous waste facility. Any vehicle suspected of carrying unacceptable materials will be directed to an inspection area where a detailed visual inspection of the vehicle contents will be performed by the operations staff. Any hazardous or unacceptable waste detected on site will be taken to a segregated hazardous waste storage area in the southeast corner of the facilities area. In the event of a hazardous material spill, the hazardous material will be separated from surrounding materials and placed in secured containers. If a spill is larger than landfill personnel can contain, the Hazardous Incident Response Team, a joint powers authority administered by the City of San Diego and the County Department of Environmental Health will be called. HIRT will be responsible for cleanup of the waste. On-site hazardous waste storage will be limited to ninety days or as required by applicable state laws and regulations governing hazardous waste.

There are currently eight household hazardous waste collection facilities available and operating throughout San Diego County to dispose of hazardous waste. These available facilities have helped to substantially reduce the amount of hazardous household waste entering landfills and will reduce hazardous waste at the project site. With the hazardous waste exclusion program included as part of the project and the numerous hazardous waste facilities available throughout San Diego County, no significant impacts from hazardous waste will occur.

The project site includes some high-power lines currently operated by SDG&E. Numerous internationally recognized scientific organizations and independent regulatory advisory groups have conducted scientific reviews to determine if there are any potential health affects from exposure to electromagnetic fields ("EMF). The National Academy of Sciences

conducted a comprehensive evaluation of research studies related to EMF and published a report in 1997 which concluded that the body of evidence does not show that exposure to EMF presents a human health hazard. A report from the National Institute of Environmental Health Sciences in 1999 found the evidence of risk from EMF to be weak. To date, no research has documented that exposure to EMF presents any human health hazard. While research is continuing in this area, there is no documented research to date supporting the conclusion that EMF emitted from the SDG&E electric facilities on the project site will create any human health hazard. Research continues and the scientific community has not reached a consensus on this issue.

A vector is an organism capable of carrying, transmitting, or causing disease or disrupting the normal enjoyment of life by adversely affecting public health and well being. Vectors generally associated with waste disposal include rodents, flies, mosquitoes and birds. State and federal standards for landfill operation impose requirements to minimize these vectors including proper grading designed to minimize water ponding and mosquito propagation and daily cover and compaction to control birds, rodents, and fly propagation. To mitigate potential vector control problems associated with the project to a level of insignificance, a vector surveillance and control management plan has been included as part of the project. Under this plan, all waste materials that are brought to the site will be covered daily with soil or an alternative daily cover. Items used at the facility that could attract vectors will be stored in closed containers or within enclosed structures. The landfill active face and perimeter areas will be inspected monthly for signs of vectors. Building openings, ground holes, and deficiencies in the perimeter fence will be repaired to deter the intrusion of ground vectors. Effective control of mosquitoes will be achieved through proper grading of interim fill services and final fill slopes and eliminating puddles and wet areas at the landfill. On-site storm water basins will be constructed so as to be self-draining within 72 hours. In areas of soil percolation, basins will be equipped with a subdrain system. Insect nuisances will be controlled by the daily compaction and covering of waste. All building gutters and drains will be designed to eliminate the ponding of water and possible habitat for mosquitoes. Potential vector problems will be controlled by covering the waste daily thereby removing the source of food. Bird vectors will be disrupted with playback of distress signals, falcon kites, owl decoys and dispersal by humans or dogs. Rodent control will be provided by limiting tire storage to six months, using conventional snap traps, and using an anticoagulant rodenticide. The rodenticide does not transfer through the food chain. With mitigation measures included as part of the project, no significant impacts from vectors will occur.

To mitigate potential impacts from fire, to a level of insignificance, no burning of refuse will be allowed at the proposed project. A fire break will be provided around the landfill footprint. This fire break will separate the refuse from the undisturbed natural areas. A minimum clearance of 150 feet will be maintained from any exposed flammable solid waste. Refuse will not be exposed for more than 4 hours. The use of daily cover will minimize the potential for sub-surface fires. If a sub-surface fire occurs, additional cover will be used. If an incoming refuse truck is carrying a smoldering load, the vehicle will be directed to an isolated area where the material will be dumped and extinguished with water. Water trucks will be permanently located on-site for dust control purposes and will therefore be available to quickly apply water to smoldering loads upon detection. In the event of an above-surface fire at the landfill, dozers will be used to cover exposed fires and scrapers will transport cover soil to the fire area. Covering by soil will be the first line of defense to potential fires. To avoid fires by waste tires, the tire storage area will not exceed 5,000 square feet or 50,000 cubic feet in volume, will be less than 10 feet in height, and will be

located more than 20 feet from any property line or perimeter fencing. All waste tires will be separated from vegetation and other potentially flammable materials by no less than 40 feet. A 20,000-gallon water tank equipped with fire hose connections will be located adjacent to the ancillary facilities area. In addition, a 5,000-gallon water truck will be located on-site equipped with fire hose connections. All tire-processing equipment will be equipped with lockout systems. Lockout systems are designed to protect employees from the accidental release of energy. A lockout is a padlock placed on a power source with a lock out device that physically holds an energy control point in the "off" position, making it impossible to operate. With these measures, no significant public health impacts related to fire hazards will occur.

To avoid tire fires, all tires will be stored on the project site in accordance with the County's 1994 Uniform Fire Code, Section 1103.3.6 (outside storage of tires) and in accordance with Title 14 Section 17354 of the California Code of Regulations. These regulations specify the volume, square footage and height for stored tires as well as mandating the separation of stored tires from vegetation or other flammable materials. At least once every six months, stored tires will be shredded in the southwestern portion of the landfill footprint with the use of a portable shredder. Shredded tire material will then be placed into the landfill, in the same way that other incoming refuses landfill. In the unlikely event of a tire fire on site, fire fighting equipment, including earth moving equipment, portable fire extinguishers and water trucks would be used to put out the tire fire. As a result, no significant impacts from potential tire fires will occur.

Safety impacts may arise if unauthorized users are provided access to the project site. To prevent potential safety impacts, entry to the landfill site during business hours will be controlled by site personnel at the entrance facility which is the single point of public access to the site. Visitors to the site will be required to check-in at the administrative office. Security at the landfill site will be provided by 6-8 foot high fencing and lockable entrance gates at the point of public access. Because portions of the landfill's boundary are particularly rugged and not accessible, fencing will not be necessary in all areas. The scale house and offices will be equipped with alarm systems. Unauthorized access will not be permitted at any time. With the implementation of site security measures, impacts related to site security are not significant.

Safety impacts at the site could occur as a result of the operation of heavy equipment and collection trucks. To mitigate this potential impact to a level of insignificance, landfill employees will be trained in health and safety procedures and preventative controls. Appropriate safety equipment such as dust mask, earplugs, goggles, gloves, and orange safety vest will be provided to all landfill employees. First-aid supplies will be provided in an accessible location. Communication equipment will be provided between operational areas to ensure a prompt emergency response. Traffic directors will control access to the working face of the landfill. Small vehicles will be directed to a separate disposal area away from the large automatic refuse trucks ensuring orderly and safe disposal operations. Traffic rules on the entire site will be strictly enforced by site personnel. With these measures, no significant public health impacts are anticipated.

In order to avoid litter associated with illegal dumping of refuse, a litter control program is included as part of the project. To minimize litter, the project will maintain a small working face and orient the daily working face to provide protection from prevailing winds. All refuse will be covered as soon as practicable. Portable temporary fencing will be used to control wind blown papers. All loads will be required to be tarped prior to entering the landfill.

Seven (7) days each week a clean-up team consisting of one truck with a minimum two-person crew will inspect for and cleanup all litter and illegal dumping on or adjacent to the access road and SR-76 between I-15 and the site. With these litter control measures, no significant litter impacts will occur.

To minimize dust associated with landfilling activities, the permanent access road to the landfill will be paved and will be swept regularly and watered at least twice daily. To minimize fugitive dust from dusty loads, covering or tarping of dusty loads will be required. Dusty loads will be watered as soon as possible to reduce fugitive dust generation during tipping. Trucks bringing construction materials to the site will be tarped to reduce dust. Dust raised from truck traffic will be controlled by wetting the internal haul roads with water or commercially available compounds. Water will be regularly sprayed on all unpaved roads. Disturbed areas will be revegetated promptly. A native vegetative cover will be planted and maintained on completed fill in excavation slopes to minimize dust. With these features, no significant dust impacts will occur.

An emergency response preparedness plan will be prepared for the project prior to its implementation. This plan will identify an emergency coordinator and an emergency notification list, identify the responsibilities of the emergency coordinator, and identify specific action plans and equipment available in the event of an upset or failure of an environmental control system. State-of-the-art environmental control and protection systems included as part of the project, the hazardous waste inspection program, and employee training and site safety programs will reduce all potential impacts on public health and safety to an insignificant level.

As described in Chapter 3 in Section 4.16 of the FEIR, the project includes a hazardous waste exclusion program ("HWEP"). The purpose of the HWEP will be to discover and discourage attempts to dispose of hazardous or unacceptable waste at the landfill. Signs will be posted near the site entrance that clearly states the types of acceptable and unacceptable waste. Trained, full-time personnel will be assigned exclusively to continuously inspect incoming refuse loads for unacceptable waste. These personnel will be stationed at the working face of the landfill whenever the landfill is open to accept waste and will inspect loads as they are tipped. The HWEP will also include a random load checking program. Specially trained landfill staff will perform a detailed examination of one randomly-selected load each week. The objective of the load checking program is to augment ongoing monitoring performed at the active landfill face to detect and discourage attempts to dispose of hazardous waste at the site. Within implementation of the HWEP, the amount of hazardous materials entering the landfill is expected to be minimal and therefore no significant impacts will occur. The HWEP will be operated in conjunction with the established existing household hazardous waste collection program currently administered throughout San Diego County. This program provides a number of disposal sites for household hazardous waste and provides collection facilities thereby reducing household hazardous waste contained in the waste stream. This program has proven effective in substantially reducing household hazardous waste in San Diego County. The HWEP administered in conjunction with the existing County household waste collection program will ensure that no significant impacts will occur from the disposal of hazardous waste at the landfill site.

With implementation of the mitigation measures described in Section 4.16 of the FEIR, no short or long-term impacts on public health or safety will occur from the project.

Q. CUMULATIVE IMPACTS

1. Findings

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 from traffic and cumulative air quality impacts. Cumulative traffic impacts to SR-76 will be significant and unmitigable unless SR-76 is widened to four lanes in accordance with the County's Circulation Element. Cumulative noise impacts caused by traffic on SR-76 to a small cluster of homes located on the north side of SR-76 between I-15 and Rice Canyon Road and one additional home on the north side of SR-76 just west of the project site will be significant and unmitigable. 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 unmitigable. 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 unmitigable cumulative traffic, noise from traffic, and air quality impacts have been adopted. The LEA finds the benefits of the project outweigh its significant and unmitigable impacts as discussed in more detail in the overriding findings.

2. Facts in Support of Findings

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 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 section 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 and at year 2020 build-out. The traffic analysis for the Pala Gaming Facility initially used 5,150 ADT based upon traffic data originally provided on the Pala Gaming Facility. However, in April 2000 a draft environmental assessment for the Pala Gaming Facility indicated the proposed facility would generate 6,400 ADT. Accordingly, the cumulative traffic analysis based upon other anticipated development in the area and in the year 2020 was re-run to include the Pala facility generating 6,400 ADT. This analysis is contained in the January 2001 traffic report of Darnell & Associates included as Appendix "I" of the FEIR. The revised traffic analysis to include 6400 ADT for the Pala casino project did not alter any of the prior cumulative traffic impacts included in prior circulated drafts of the EIR for the project. The cumulative traffic analysis demonstrated that with signals recently installed on the northbound and southbound ramps of I-15 at SR-76 all intersections will operate at LOS D or better in the year 2020. The highway and street segment analysis indicated that without any improvements to SR-76 all street segments except Courser Canyon to the project access road will operate below LOS D without the project. All segments will also operate below LOS D with the project. The traffic analysis demonstrated that cumulative project traffic in the year 2020 with or without the project will create a significant and unmitigable cumulative traffic impact. With the widening of SR-76 to four lanes as required by the County Circulation Element, all intersections and roadways would operate at an acceptable

LOS B condition. Mitigation measures have been imposed on the project to mitigate its contribution to this cumulatively significant traffic impact. The project is required to make an irrevocable offer of dedication for right-of-way to four lanes within the project site for the future widening of SR-76 in accordance with requirements contained in the Circulation Element. In addition, the project is required to provide a fair share contribution for the costs to provide four lanes on SR-76 from the western boundary of the project site to the project access road. Although this mitigation could constitute a fair share contribution, because of the uncertainty of the implementation of these future improvements to SR-76, the cumulative traffic impact is considered significant and unmitigable. However, it should be noted that the traffic assumptions used for the project substantially overstated the expected traffic impacts from the project. The conservative assumptions used in the traffic analysis overstated daily traffic by at least 675 trips per day. During the early years of the project when waste processed at the other site is not 1 million tons per year, the traffic overstatement is greater than 675 trips per day.(FEIR pg. 4.5-11).

Noise testing and a noise assessment completed for the project demonstrated the project would not create any significant noise impacts with the exception of traffic noise impacts to a cluster of homes located on SR-76 between I-15 and the western property boundary and one home located west of the project site which are currently experiencing noise impacts exceeding the County's standard of 60 CNEL. A cumulative noise analysis was completed based upon build-out conditions in the year 2020. This analysis showed that the same cluster of homes located on SR-76 and the one home west of the project site would experience noise levels in the year 2020 exceeding the County standard of 60 CNEL with or without the project. 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 this mitigation measure requiring a fair share contribution by the project 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 the cluster of homes remains significant and unmitigable. The project is required to make a fair share contribution to construction of the sound wall if it will be permitted by Caltrans. (FEIR 5-31)

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.

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 MHCP 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 MHCP were examined to evaluate cumulative biological impacts caused by the project in combination with other development in the area.

Biological mapping completed to date 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.

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 insignificance, the project has been required to dedicate not less than 1313 acres of the project site as open space for the long-term preservation of habitat and species. In addition, the project has been required to implement a habitat enhancement plan which is described in detail in Appendix "L" of the FEIR. 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. In addition, the project applicant is in discussions with the USFWS and CDFG as part of the Section 7 Consultation process and has expressed a willingness to donate funds for the possible acquisition of biologically important off-site properties for open space preservation. The habitat enhancement plan will result in a net long-term gain of 14 acres of wetland habitat and 88 acres of upland habitat after considering all habitats potentially lost as a result of the project. In addition, 69 acres out of approximately 75 acres (92%) of 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. After implementation of the habitat enhancement plan, one mile of the San Luis Rey River and adjacent upland areas totaling approximately 172 acres will be improved by habitat creation and enhancement. The dedication of 1313 acres of the project site as open space coupled with the habitat enhancement plan will fully mitigate the project's contribution to cumulative biological impacts to a level of insignificance. The habitat enhancement plan will provide additional habitat on the project site for the protected arroyo toad, least Bell's vireo, and southwestern willow flycatcher..

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.

The environmental documentation available for other anticipated development in the area was examined to determine whether other anticipated development in the area would create a cumulatively significant impact to Gregory Mountain or Medicine Rock. In addition, the distance of each of these projects from the two cultural resources was considered. Environmental documents completed for the other anticipated development in the area did not identify any significant impacts to Gregory Mountain or Medicine Rock. The closest approved development in the area to Gregory Mountain is the proposed Pala Gaming Facility located approximately 1.5 miles east of the project site, Gregory Mountain and Medicine Rock.

Other than the Pala Gaming Facility, the closest anticipated development in the area to Gregory Mountain or Medicine Rock is the Palomar Aggregate Rock Quarry. The Quarry is located approximately 1.5 miles west of the project site and more than 1.5 miles from Gregory Mountain or Medicine Rock. The vast majority of the quarry traffic would occur between the quarry and the I-15 freeway a distance of more than two miles from Medicine Rock and Gregory Mountain. An EIR completed for the Palomar Aggregate project did not identify any significant impacts either individually or cumulatively to Gregory Mountain or Medicine Rock. The closest anticipated development to Medicine Rock is the Fenton Sand and Gravel Mine that has been operating for many years. The major use permit approved for this project allows an increase of 18 trips per year or 1.5 trips per day. This major use permit will expire in the year 2005. The small amount of additional traffic from the Fenton project, 1.5 trips per day, will not create any cumulatively significant noise, traffic, air quality, or dust impacts to Gregory Mountain or Medicine Rock. The continued operation of the Fenton Sand Mine would be very similar to existing conditions with indistinguishable levels of dust generation due to the very small traffic increase permitted by the major use permit. In addition, winds in the project area are primarily from the northwest and therefore dust generated by the project and the Fenton Sand Mine would not blow towards Medicine Rock or Gregory Mountain at the same time. A natural buffer currently exists between the Fenton Sand Mine and Gregory Mountain and Medicine Rock. The mine is located more than 1200 feet from Gregory Mountain and more than 1700 from Medicine Rock and is separated from both of these cultural resources by the San Luis Rey River. This substantial natural buffer will ensure that dust generation from the project and the Fenton Sand Mine will not result in significant cumulative dust impacts to either ethnohistoric resource. In addition, mitigation measures included as part of the project have reduced project dust impacts to Medicine Rock and Gregory Mountain to a level of insignificance.

All other anticipated development in the area is located too far from Gregory Mountain and Medicine Rock to create any cumulative impacts. Most of these developments are located three to ten miles from Gregory Mountain or Medicine Rock. Consequently, anticipated development in the area will not create any cumulatively significant impacts to either Gregory Mountain or 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, 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

The CEQA Guidelines require that an EIR describe a reasonable range of alternatives that would feasibly obtain most of the basis project objectives but would avoid or substantially lessen any of the significant environmental effects of the project and evaluate the comparative merits of the alternatives. (Guidelines §15126(a). Case law has indicated that the lead agency has the discretion to determine how many alternatives constitute a reasonable range. (*Citizens of Goleta Valley v. Board of Supervisors* (1990), 52 C.3d 553, 566). The Guidelines note that alternatives discussed should be able to obtain most of the basic objectives of the project. (Guidelines §15126.6(a). An EIR need not present alternatives that are incompatible with fundamental project objectives (*Save San Francisco Bay Association vs. San Francisco Bay Conservation & Development Commission* (1992), 10 Cal.App.4th 908). The Guidelines provide that an EIR need not consider alternatives that are infeasible. (CEQA Guidelines §15126.6(a)). The Guidelines provide that among the factors that may be taken into account when addressing the feasibility of alternatives are "site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulator limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site". (CEQA Guidelines §15126.6(f)(1)). The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. (CEQA Guidelines §15126.6(f)).

Based upon guidance contained in the CEQA Guidelines, the FEIR considered a wide variety of alternatives designed to eliminate or reduce the impacts of the proposed project.

Ten (10) separate alternatives were considered and evaluated. These alternatives include each of the following: (1) Two separate no project alternatives; (2) Relocation of the SDG&E transmission lines to the western side rather than the eastern side of the landfill footprint; (3) A reduced visual impacts alternative designed to eliminate the significant unmitigable visual impacts caused by the landfill footprint; (4) A reduced air emissions alternative designed to reduce the unmitigable air emissions associated with the project; (5) An evaluation of two alternative landfill sites at Merriam Mountain and Aspen Road; (6) An alternative involving the long-term transport of waste to other sites located within or outside San Diego County; (7) An alternative based solely upon waste reduction and recycling; (8) A prescriptive design alternative with a single liner; and (9) A prescriptive design with a double liner. Analysis of the “no project” alternative is required by the CEQA Guidelines. Relocation of the SDCWA pipelines on the project site was also evaluated as a project option throughout each section of the FEIR.

All of the other alternatives were selected to evaluate ways of reducing one or more of the significant environmental impacts of the project. No alternative exists capable of reducing significant noise impacts since traffic noise on SR-76 currently exceeds significance levels for some residences and habitats. Merriam Mountain and Aspen Road were selected as alternative landfill sites since they are the only two North County landfill locations other than Gregory Canyon currently designated as potential landfill sites in the adopted County solid waste plan. Under state solid waste law, a landfill is not permitted unless it is designated as a landfill site in the solid waste adopted plan. (Public Resources Code §50001(a)(1). The reduced visual impacts alternative and the reduced air emissions alternative were selected to reduce the significant and unmitigable visual and air quality impacts of the project. Since the FEIR concludes that project impacts to Gregory Mountain and Medicine Rock are significant and unmitigable based upon the subjective judgment of Native Americans the only means to avoid this impact is the no project alternative. The long-term transport of waste to sites outside San Diego County was selected since some of the North County cities are currently trucking their waste to sites outside San Diego County. This alternative considered both truck-haul and waste-by-rail haul to out of county landfills. Finally, the alternatives analysis considered a variety of waste reduction and recycling alternatives in lieu of the project. Selected alternatives included recycling, source reduction, and mechanical volume reduction. An alternative using out-of-county waste-by rail facilities was also considered. No other viable alternatives to landfilling exist today. At the request of the SDCWA, a project option was included which would relocate existing pipelines 1 & 2 on the project site. The environmental analysis of this option was carried throughout each environmental section of the FEIR. Analysis of two prescriptive design alternatives with a single and double liner were also evaluated. The project approved includes a composite liner system which is more protective than the prescriptive design alternative and double liner system design evaluated in the FEIR, since this further reduces the potential environmental impacts of the project. No other feasible alternatives have been identified or suggested that are capable of reducing one or more of the significant environmental impacts of the project.

B. NO PROJECT ALTERNATIVE

1. Facts in Support of Findings

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 the capacity of SR 76 would still occur with a planned development in the project area. 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

The LEA finds the No Project Alternative would not meet the project objectives and is not environmentally superior to the proposed project for the following reasons:

- a. The No Project Alternative does not meet any of the project objectives or the basic goals of Proposition C. This alternative would not provide a Class III disposal facility that is locally available to North County jurisdictions and would not increase the landfill disposal capacity within San Diego County since no new landfill would be developed.
- b. Since no new landfill would be developed, the overall disposal capacity within the County would be reduced at a faster rate.
- c. The No Project Alternative would not provide the infrastructure facilities necessary to support the long-term economic growth projected in the region.

- d. The No Project Alternative would not help to minimize or reduce tipping fees through the preservation of competition among solid waste disposal sites within the County since this alternative would not increase the number of facilities or operators within the County.
- e. The No Project Alternative is not environmentally superior to the proposed project. While this alternative would eliminate some of the significant environmental impacts of the proposed project, it would also result in increased regional traffic impacts associated with the greater vehicle miles traveled as local jurisdictions continue to transport their waste to more distant locations, would result in greater regional air quality impacts due to the increased VMT to dispose of solid waste, and would result in increased energy usage from the increased VMT. This alternative would not protect important biological resources on the project site by dedicating 1330 acres of the project site to preserve these biological resources.

C. SDG&E WESTERN ALIGNMENT ALTERNATIVE

1. Facts in Support of Findings

Currently, SDG&E maintains a 300-foot wide easement for 230 and 69 kV transmission lines, which cross the landfill footprint in a north-south direction. The project proposes to relocate the easement and transmission towers to the east of the current easement along the eastern perimeter of the landfill footprint. The Western Alignment Alternative would relocate the easement and transmission lines to the western side of the landfill footprint.

This alternative would have the same impacts as the project in the areas of land use, agricultural resources, hydrogeology, surface hydrology, traffic and circulation, noise and vibration, air quality and health risks, paleontology, cultural and ethnohistoric resources, socioeconomics, and human health and safety. Biological impacts from the western alternative would be greater than for the eastern alignment since the length of the lines would be greater and would increase the risk to golden eagles of injury or death from flying into the transmission lines. The Western Alignment Alternative would have less significant impacts as a result of geologic hazards (e.g. debris flows and rock falls). Significant and unmitigable impacts to Gregory Mountain and Medicine Rock would remain with this alternative since changing the alignment of the transmission line from east to west of the landfill would not affect the magnitude of these impacts. This alternative would have greater visual impacts than the eastern alignment since the towers of the western alignment would be silhouetted against the sky rather than back dropped by Gregory Mountain. This increased visual impact is and unmitigable.

2. Findings

The LEA finds that the SDG&E western alignment alternative is feasible but does not reduce any of the remaining significant impacts of the project and will result in greater environmental impacts than the proposed project for the following reasons:

- a. This alternative would relocate the existing SDG&E transmission facilities to the west rather than to the east of the landfill footprint as proposed for the project. An evaluation of this alternative from an engineering standpoint demonstrates it is feasible.

- b. This alternative does not reduce any of the significant and unmitigable air quality, noise, cumulative traffic or cultural resource impacts of the proposed project since all of the project components would remain the same for this alternative except relocation of the SDG&E electrical transmission facilities west rather than east of the landfill footprint.
- c. This alternative would result in greater environmental impacts than the proposed project to both visual resources and the Golden Eagle. The towers of the western alignment would be silhouetted against the sky resulting in a significant and unmitigable visual impact to neighboring land uses that will not occur with the proposed project. This alternative would also increase the risk of injury to the Golden Eagle pair located on the project site since this alternative extends the length of the electric transmission lines thereby increasing the risk that the Golden Eagle pair may be injured from the relocated facilities.

D. Reduced Visual Impacts Alternative

1. Facts in Support of Findings

The Reduced Visual Impact Alternative was developed to eliminate the significant and unmitigable visual impacts caused by views of the landfill footprint from SR-76. To reduce the visual impacts to views from SR-76, the maximum height of the landfill would be lowered to 980 feet adjacent to Gregory Mountain and 925 feet on the western side to match existing off-site topography. The shape of the landfill surface would be changed to create a valley effect in the center that reflects the natural topography of Gregory Canyon. The landfill footprint would be reduced from 196 acres to about 150 acres. The overall capacity would be reduced from about 33 million tons with a life span of about 30 years to about 10.8 million tons with about an 11-year life span. The maximum allowable tons per day would be reduced to 3200. With a reduction in size, Borrow/Stockpile Area A would be eliminated. All other aspects of the project would remain the same.

From an environmental standpoint, the Reduced Visual Impact Alternative would reduce visual impacts from the project to a level of insignificance. Although this alternative would reduce air quality impacts, these air quality impacts would remain significant and unmitigable because state air quality standards would still be exceeded. Impacts to Gregory Mountain and Medicine Rock would be slightly reduced but would remain significant and unmitigable based upon the subjective judgment of the Luiseño. Impacts to biological resources would be slightly reduced although impacts to biological resources would be significant and mitigable with this alternative and with the proposed project. Noise levels would be reduced at some residences south of the project site. However, after this alternative is closed in 11 years, this alternative would result in significant and unmitigable air quality impacts, potentially significant impacts to transportation and circulation and significant impacts to energy conservation caused by the 4,304,458 VMT traveled per year during the 19 years after closure. In the long term this alternative will result in greater air quality, traffic and energy conservation impacts than the proposed project.

2. Findings on Reduced Visual Impact Alternative

The LEA finds that the reduced visual impact alternative does not meet most of the project objectives and is not environmentally superior to the proposed project for the following reasons:

- a. The Reduced Visual Impact Alternative would not meet most of the project objectives because it does not provide a long-term solution (25 years) for disposal of waste generated in North County jurisdictions, does not provide the infrastructure facilities necessary to support the long-term (25 years) economic growth projected in the North County sub region, and does not provide a disposal site for the North County sub region beyond 11 years.
- b. The Reduced Visual Impact Alternative is not environmentally superior to the proposed project. While this alternative would reduce the significant and unmitigable visual impacts of the proposed project to viewers on SR-76, in the long-term and on a regional basis, this alternative would result in greater impacts to air quality, traffic and energy conservation over the entire 30 years than the proposed project.

E. REDUCED AIR EMISSIONS ALTERNATIVE

1. Facts in Support of Findings

The Reduced Air Emissions Alternative was designed to reduce the unmitigable air emissions of the proposed project to below significant. Air emissions from the landfill with this alternative would meet the criteria for both federal and state standards. The project presently exceeds state standards for NO_x and PM₁₀. The air analysis (FEIR 6-31) indicated that to meet these standards the working face of the landfill would need to be reduced to approximately 21.4% of its current level and the number of waste haul and operational trucks would also need to be reduced to 21.4% of the project level. This corresponds to a decrease in the amount of waste sent to the landfill from 5000 maximum daily tons to about 1070 tons per day. The Reduced Air Emissions Alternative would have a total capacity of 7.06 million tons with a maximum daily disposal rate of 1070 tons per day ("tpd"). The landfill would be permitted to accept approximately 211,147 tons annually for a total life span of about 30 years. The size of the footprint would be reduced from 190 acres to about 41 acres. Borrow/Stockpile Area A would be eliminated, and Borrow/Stockpile Area B would be reduced in size. The access road, bridge, and support facility would all remain the same. All environmental controls for the project would remain the same. The methane flare would still be operated but would be substantially smaller than the facility proposed for the project.

From an environmental standpoint, this alternative would reduce project air quality impacts to an insignificant level. However, cumulative air impacts would still be significant and unmitigable since the non-attainment status of the San Diego County air basin means that any contribution is significant and unmitigable. This alternative would reduce some visual impacts of the project but the significant and unmitigable visual impacts to travelers on SR-76 would remain. This alternative would also reduce geological hazards, local traffic, and noise levels at residences south of the project site although these impacts are not significant with the project as mitigated. Impacts to Gregory Mountain and Medicine Rock with this alternative would remain significant and unmitigable. Impacts to biological

resources would be reduced although these impacts are fully mitigated with the project. Therefore, although this alternative would reduce some project impacts, its primary environmental benefit would be elimination of significant and unmitigable air quality impacts associated with the project. However, because this alternative is incapable of disposing of the great majority of waste generated in Northern San Diego County, the remaining solid waste generated in this region would need to be disposed of at more distant landfill sites located in the southern portion of San Diego County or at existing disposal sites outside San Diego County. This need to dispose of the excess waste will result in significant and unmitigable regional impacts to air quality, potentially significant traffic impacts and significant but mitigable energy conservation impacts. Although this alternative reduces some of the local impacts of the project, the long-term regional impacts on traffic, energy conservation, and air quality caused by this alternative would be greater than the proposed project.

2. Findings on Reduced Air Emissions Alternative

The LEA finds that this alternative is not environmentally superior to the proposed project for the following reasons:

- a. This alternative would reduce air quality impacts of the project to a level of insignificance. However, because this alternative limits the annual disposal capacity of the Gregory Canyon site to 74,000 tons of waste annually, the remaining 960,00 tons of waste generated each year in northern San Diego would have to be disposed of at other landfill sites
- b. In the long-term and on a regional basis, this alternative would result in significant and unmitigable impacts to regional air quality, potentially significant transportation and circulation impacts and significant but mitigable energy conservation impacts as a result of the transportation of solid waste to more distant disposal facilities.
- c. This alternative would have greater regional impacts on traffic, circulation and air quality than the proposed project because of the disposal of waste at more distant locations.
- d. This alternative would have regionally significant but mitigable impacts with regard to energy use caused by the disposal of waste at more distant sites.

F. MERRIAM MOUNTAIN ALTERNATIVE SITE

Two alternative landfill sites were evaluated as potential alternatives for the project. These two alternative sites are Merriam Mountain and Aspen Road. These two alternative sites were selected since they are the only North County landfill sites tentatively reserved as landfill sites in the adopted solid waste plan for the County of San Diego.

1. Facts in Support of Merriam Mountain Findings

The Merriam Mountain site is located immediately to the west of I-15 west of Lawrence Welk Village. This site is located approximately three miles east of Vista, and six miles south of the Gregory Canyon site. Merriam Mountain was identified as a feasible landfill site in the SCS study (1988) and Edarra study (1986).

This 350-acre site is presently vacant and features rugged and steep natural slopes. Preliminary engineering indicates the site could accommodate about 66.4 million cubic yards or approximately 40 million tons of refuse. A general plan amendment to designate these sites solid waste would be required before this alternative could proceed. In addition, the County would have to issue a major use permit authorizing a landfill at this site.

The Merriam Mountain site is located across I-15 from the Lawrence Welk Village. The Lawrence Welk Village is a regional resort center with a golf course, pools, small shops and residential and guest homes and condominiums. North of the site the land is developed with rural estate density residences. There are several estate density-type residences located east of the project site. The Golden Door Fitness Center is located approximately 4 miles south of the site.

Development of this alternative would create significant and unmitigable land use impacts to surrounding residential land uses and the resort community character of Lawrence Welk. Impacts to geology and hydrogeology from this alternative are significant but mitigable. Due to the steep slopes associated with the mountain topography at the Merriam Mountain site, this site could result in drainage impacts that would be greater than the proposed project. Groundwater is present in the fractured rock aquifer at depths from between 50 and 250 feet below surface grade. There are six well defined lineaments bordering the Merriam Mountain site which may indicate on-site faults. However, the existence of these faults cannot be verified without more detailed engineering data. This alternative would generate slightly more than 2000 average daily passenger car equivalent trips on a peak day. These trucks would contribute to existing traffic using the Deer Springs/Mountain Meadow ramps from I-15 on Champagne Boulevard. Significant but mitigable traffic impacts may occur from heavy truck traffic along the existing residential streets and from potential cumulative traffic impacts to I-15 at the Mountain Meadow/Deer Springs Road and Mountain Meadow/Champagne Boulevard interchanges. Noise impacts from this alternative would be significant but mitigable. Noise impacts to nearby residences would need to be mitigated by providing buffers or noise barriers between the landfill and adjacent residences. Similar barriers would be needed to mitigate noise impacts from truck traffic on residences along Champagne Boulevard and Lawrence Welk Drive.

This alternative would result in significant and unmitigable NO_x and PM₁₀ emissions generated by equipment working at the landfill and by waste haul trucks transporting waste to the disposal area. Operation of the methane flare may generate CO emissions that exceed state standards. This alternative will not create any significant agricultural resource impacts since no agricultural uses presently exist on the site. Impacts to biological resources from this alternative are significant but mitigable. Scattered sycamore trees and the western whiptail that occurs on the project site are sensitive and protected. These impacts could be mitigated by replacing the lost sycamore trees and providing mitigation measures to mitigate potential impacts to western whiptail. Without further testing, the ability of this alternative to mitigate these impacts is unknown. However, it appears that impacts to significant archeological sites may be mitigable. This alternative would not create any significant human health or safety impacts. However, visual impacts to Lawrence Welk Village residents and views of waste-hauling vehicles traveling on Champagne Boulevard and Lawrence Welk Drive will create significant and unmitigable visual impacts with this alternative. This alternative will also create significant and unmitigable air quality impacts caused by dust on the neighboring Lawrence Welk Village. Because the Merriam Mountain site is located well above Lawrence Welk Village and the prevailing wind patterns in the area will blow from west to east toward the village, dust

impacts from the project upon Lawrence Welk Village and its residential home sites will be significant and unmitigable. These same conditions would result in greater impacts from fugitive litter at Merriam Mountain when compared to the proposed project.

There are land use and availability issues that make the Merriam Mountain site infeasible. This site is not zoned or designated for a solid waste facility and a rezone and general plan amendment would be needed to allow the construction and operation of a landfill on the site. The approval of these land use actions would be highly controversial and political, and would severely restrict the feasibility of the site. This site is not owned by or under the control of the project applicant and there is no assurance that the existing property owners would sell or make the site available to the applicant. Under CEQA Guidelines Section 15126.6(f)(1) the lack of general plan consistency and the inability of a proponent to reasonably acquire or control an alternative site are grounds to find an alternative infeasible. Merriam Mountain is infeasible because it does not have a general plan designation of solid waste, a major use permit would need to be issued by the County before use of this site as a landfill could be approved and because there is no guarantee that the project applicant has the ability to purchase this site.

The Merriam Mountain site would result in greater impacts than the proposed project in a number of areas. Use of the Merriam Mountain site would result in significant and unmitigable land use impacts on both the resort and residential community in the area. Since Merriam Mountain is located in mountainous topography this alternative would result in greater risks associated with slope stability and landslides. The Merriam Mountain alternative would also result in significant and unmitigable air quality impacts that are greater than the proposed project due to fugitive dust migration and the general wind flow direction and downward proximity to Lawrence Welk Village, an established residential area. This alternative would result in greater impacts than the proposed project for fugitive litter migration due to the topographic elevation of this site, the wind flow direction and the downwind proximity of Lawrence Welk Village.

2. Findings for Merriam Mountain Alternative

The LEA finds that this alternative is infeasible and environmentally inferior to the proposed project and rejects this alternative for the following reasons:

- a. This site is infeasible since it lacks the general plan amendment and major use permit necessary to proceed with a landfill. No landfills are permitted in the County of San Diego without a solid waste general plan designation and a major use permit. The Merriam Mountain site does not have the general plan solid waste designation or the major use permit necessary to proceed with a landfill. The site is presently designated Estate Development Area in the County's general plan which calls for residential development on large lots; and
- b. The Merriam Mountain site is infeasible since it is not owned or under the control of the Gregory Canyon project applicant and there is no assurance that the existing owners of the Merriam Mountain site would sell or make the site available to the applicant; and
- c. The Merriam Mountain site will result in significantly greater environmental impacts than the proposed project. Due to the close proximity of this site to neighboring residential uses, development of a landfill at this site will result in significant and

unmitigable land use impacts to neighboring residential uses and to community character. This alternative will result in greater geologic hazards than the proposed project. This alternative will also create significant and unmitigable dust and litter impacts to neighboring residential uses that will not occur with the proposed project. Finally, this site will result in significant and unmitigable visual impacts to neighboring residential uses that will not occur with the proposed project. Viewed as a whole, these significant and unmitigable impacts exceed the remaining environmental impacts of the proposed project.

G. ASPEN ROAD ALTERNATIVE

1. Facts in Support of Aspen Road Alternative

The Aspen Road site is located west of I-15 near the Mission Road exit, approximately four miles northeast of the town of Fallbrook and about one mile west of Rainbow. The site is presently designated and zoned for rural residential and agricultural uses. Before a landfill could be sited at Aspen Road, a general plan amendment would be required designating the site solid waste. A major use permit would also need to be issued by the County.

Based on preliminary engineering design completed by the County, approximately 140 acres of the site could be used for the landfill footprint. The site is capable of accommodating about 35.2 million cubic yards of municipal solid waste. This would result in disposal capacity for about 21 years.

Site access would be from a newly constructed 1.7 mile road from Rainbow Glen Road to the site. The site topography is moderately rugged, cut by one major drainage and several minor drainage channels. To implement a landfill at Aspen Road, two water lines belonging to the DeLuz Heights and Rainbow Municipal Water Districts would need to be relocated and utilities would need to be extended to the project site.

The Aspen Road site is generally undeveloped with three residences located on the site. The project area is designated for multiple rural uses and agricultural preserves in the Fallbrook Community Plan. The site is surrounded by low-density residential and agricultural uses. Immediately to the west are residential and agricultural lands on 4 to 20 acre parcels. Approximately 100-120 homes exist within a one-mile radius of the Aspen Road site. Many of these homes are associated with small to medium size agricultural operations, primarily citrus and avocado groves.

Development of a landfill at Aspen Road would result in significant and unmitigable land use impacts due to the close proximity of the site to neighboring residential development. Development of the site would also result in unmitigable access road impacts to adjacent sensitive existing and future residential uses along Rainbow Glen Road. The Elsinore fault is approximately 4.5 miles from the Aspen Road site. A minor tributary stream drains through the project site that joins Rainbow Creek. Groundwater is encountered on-site at depths of 50-60 feet below ground surface. Potential impacts to geology and hydrogeology on the project site would be significant but mitigable.

Slightly more than 2,000 average daily passenger car equivalent trips would be expected on a peak day. These trucks would combine with existing traffic on I-15 at Rainbow Glen Road and contribute to a cumulatively significant traffic impact. Rainbow Glen Road currently serves primarily rural and residential uses and the addition of these waste haul

trucks would create a significant and unmitigable impact to residences along the roadway. Implementation of a landfill at Aspen Road would result in unmitigable traffic safety impacts caused by obstruction of site distances due to the need to construct noise barriers at off-site noise-sensitive locations to minimize project noise impacts. Noise impacts from a landfill at this site would be mitigable provided sufficient buffers and noise barriers between the landfill and the adjacent residences were constructed.

The Aspen Road alternative would result in significant and unmitigable impacts from PM₁₀ and NO_x generated by heavy equipment working at the landfill and by waste haul trucks transporting waste to the disposal area. There is presently a Williamson Act agricultural contract that exists on the Aspen Road site. Use of this site for a landfill could not proceed without cancellation of the Williamson Act contract by the County.

The Aspen Road site contains several sensitive riparian communities including sycamore and coast live oak trees. The sensitive San Diego horn lizard and orange-throated whip tail have also been observed by biologists on the project site. Since a large part of the Aspen Road site consists of coastal sage scrub, implementation of a landfill at Aspen Road would result in cumulatively significant and unmitigable impacts to both coastal sage scrub and native grassland.

The Aspen Road site is located on a Native American trail passage and contains food and medicinal plant species historically used by local bands. Accordingly, implementation of a landfill at this site would result in significant and unmitigable impacts to these historically significant Native American interests. No significant impacts to human health or safety would occur at the Aspen Road site. The County's Scenic Highway Element designates I-15 north of SR-76 and Mission Road between Willow Glen Road and I-15 as scenic highways. Implementation of a landfill at Aspen Road would result in significant and unmitigable impacts to Red Mountain and Willow Glen residential area viewsheds. Residents would have views of the landfill and waste haul vehicles traveling on Rainbow Glen Road. This impact could be partially mitigated through landscape screening and landform grading. However, even with these mitigation measures the view impact would be significant and unmitigable.

Development of a landfill at Aspen Road would result in greater environmental impacts than the proposed project to land use and related planning, traffic and circulation, agricultural resources, and noise. A landfill at Aspen Road would result in reduced environmental impacts to biological and cultural resources. Aspen Road and Gregory Canyon would have similar environmental impacts to geology, Native American interests and paleontology, hydrogeology and surface hydrology, air quality, human health and safety, aesthetics, socioeconomics and public services and utilities.

The Aspen Road alternative is environmentally inferior to the proposed project. Although the development of a landfill at Aspen Road would result in reduced impacts to biological resources and cultural resources, the proposed project has mitigated environmental impacts to biological resources to a level of insignificance. While a landfill at Aspen Road would avoid the impacts to Gregory Mountain and Medicine Rock it would result in similarly significant and unmitigable impacts to the Native American trail and medicinal plants located on the Aspen Road site. Since the Aspen Road alternative would result in significantly greater environmental impacts to land use and related planning, traffic and circulation, agricultural resources and noise, it is not environmentally superior to the proposed project when considered as a whole.

2. Findings for Aspen Road Alternative

The LEA finds that the Aspen Road Alternative is infeasible and environmentally inferior to the proposed project and rejects this alternative for the following reasons:

- a. This site is infeasible since it lacks the solid waste general plan designation and major use permit necessary to site a landfill. The Aspen Road site is presently designated for rural residential and agricultural uses in the County general plan and zoning ordinance. A general plan amendment to solid waste and a major use permit would be required before a landfill could be sited at Aspen Road; and
- b. This site is infeasible since it is not owned or under the control of the Gregory Canyon landfill project applicant and there is no assurance that the existing property owners would sell or make the site available; and
- c. A landfill is presently prohibited at Aspen Road as a result of the existing Williamson Act agricultural contract that exists on this site. A landfill would not be permitted at the site without removal of the Williamson Act contract by the Board of Supervisors; and
- d. Development of a landfill at the Aspen Road site would result in significantly greater environmental impacts than the proposed project. Residences presently exist on the Aspen Road site and in close proximity to this site. Development of a landfill at this site would result in significant and unmitigable impacts to neighboring land uses and community character in the Aspen Road area that would not occur with the proposed project. This alternative would also result in significant and unmitigable traffic safety impacts on neighboring rural residential roads that will not occur with the proposed project. This alternative will also cause substantially greater noise impacts than the proposed project due to the close proximity of residences to the project site and will result in significant and unmitigable visual impacts to residential area viewsheds. While this alternative will avoid the project impacts to Gregory Mountain and Medicine Rock, it will result in similarly significant and unmitigable impacts to the Native American trail and historically significant medicinal plants located on the Aspen Road site.

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

1. Facts in Support of Landfill Sites Outside the County

The FEIR also considered the long term transport of waste to sites outside San Diego County as an alternative to the proposed project. Under this alternative, all waste generated in northern San Diego County would be shipped to landfills in other counties. Under existing conditions, approximately 26% of the waste generated in Northern San Diego County cities is shipped to the Prima Deshecha Landfill in Orange County. Approximately 73% of the total waste stream from the cities go to landfills in other sub-regions of San Diego County, primarily the City of San Diego. Under this alternative, Northern San Diego waste may be transported by truck or rail to these more distant facilities either from transfer stations or directly hauled from collection routes. Waste could be sorted at the transfer stations and recyclables removed prior to shipping to landfills. Recently, several waste-by-rail facilities located in remote places have been or are seeking approval, including Mesquite in Imperial County, Eagle Mountain in Riverside County, and

sites in Arizona and Utah. This would require rail-loading facilities near the population centers. According to the County's integrated waste management plan, there are no rail loading facilities permitted in the County at this time. Rail loading facilities would be necessary to proceed with disposal of solid waste at these waste-by-rail facilities.

This alternative would not result in any impacts to land use and related planning since the additional disposal of imported solid waste would occur at existing permitted landfill facilities located outside of San Diego County. Future phases of landfill excavation and development at out-of-county landfill facilities would result in impacts to geological hazards and hydrogeology that would be significant but mitigable. If the municipal waste is trucked to disposal sites in Orange, Los Angeles, Riverside or Imperial Counties, the number of vehicle miles traveled would increase significantly over existing conditions.

Because of the greater vehicle miles traveled, this alternative would result in significant and unmitigable regional air impacts that will not occur with the project. Waste haul vehicles would be required to travel much farther distances to dispose of solid waste at out-of-county landfills, resulting in significant increases in vehicle miles traveled over both existing conditions and the proposed project. Energy conservation impacts would be greater than the proposed project under this alternative due to the need to dispose of the waste at more distant sites. Waste haul vehicles would continue to utilize existing access roads for out-of-county landfill facilities. Increased noise impacts would occur as truck volumes increase along these roadways, associated with increased waste intake volumes. This could result in a significant but mitigable noise impact. No impacts to agricultural resources would occur at existing permitted landfill facilities. Future phases of landfill excavation and development and out-of-county landfill facilities could result in impacts to biological resources that would be significant but mitigable. Future phases of landfill excavation and development could also result in impacts to cultural and paleontological resources that would be significant but mitigable. Impacts caused by household hazardous waste, litter generation and vector generation would not be significant. Visual impacts caused by future phases of out-of-county landfill development would result in significant but mitigable visual impacts. No impacts to socioeconomics would occur. No impacts to public services and facilities would occur.

This alternative would not meet the project objectives of providing a Class III disposal facility that is locally available to North County jurisdictions nor would this alternative increase the landfill disposal capacity within San Diego County since no new landfill would be developed.

This alternative would reduce or eliminate some of the environmental impacts of the proposed project including impacts to visual quality, air quality and conflicts with Native American interests. However, significant traffic and air quality impacts which still occur at whichever landfill sites are selected for disposal for truck haul landfills and at the landfills and transfer stations for rail-haul facilities. In addition, this alternative would be expected to have a significant and unmitigable impact on regional air quality of the Southern California region due to the anticipated increase in VMT when compared with the project. Regional traffic impacts would be potentially significant and energy conservation impacts would be significant but mitigable.

2. Findings on Landfill Sites Outside County

The LEA finds that this alternative is infeasible since it fails to achieve most of the project objectives and is not environmentally superior to the proposed project for the following reasons:

- a. This alternative is infeasible since it fails to achieve most of the project objectives. This alternative would not provide a landfill site in Northern San Diego County capable of disposing of the waste generated in this sub-region for a term of 25 years. This alternative would not accommodate any landfill sites in the North County sub-region. This alternative would not provide the infrastructure facilities necessary to support the long-term economic growth projected in the North County sub-region. This alternative would not preserve competition among solid waste disposal sites in the County since this alternative would not provide any new landfill sites within the County.
- b. This alternative is not environmentally superior to the proposed project. While this alternative would reduce some of the residual local impacts of the proposed project, this alternative would result in greater regional air quality impacts, traffic impacts, and energy conservation impacts in the proposed project as a result of transport of the waste to far more distant sites for disposal. This alternative would result in significant and unmitigable impact on the regional air quality of Southern California due to the substantial increase in VMT necessary to transport the waste to more distant sites. Some additional environmental impacts are expected with this alternative as a result of the need for rail spurs or transfer stations in order to transport the waste to more distant sites.

I. WASTE REDUCTION AND RECYCLING ALTERNATIVE

1. Facts in Support of Waste Reduction and Recycling Alternative

The California Integrated Waste Management Act of 1989 (AB939) required that cities and unincorporated areas within San Diego County achieve the waste diversion level of 25% by 1995 and 50% by the year 2000. Although source reduction and recycling cannot replace landfilling since a substantial portion of the waste stream does not consist of recyclable products, a successful waste reduction and recycling program can reduce the amount of waste entering the landfills thereby extending the service life of existing landfills and postponing the need for new landfills.

Data obtained from County waste characterization studies indicates that approximately 30% of the unincorporated area waste stream is composed of readily recyclable material such as glass, paper, metal, yard and wood waste. Approximately 20.5% of the County's waste consist of yard waste. A Countywide mulching program for yard waste with a reduced tipping fee has been instituted at all landfills in the County. Source reduction refers to any action which causes a net reduction in the generation of solid waste and includes replacing disposal materials and products with reusable materials and products, reducing packaging, and increasing the efficient use of materials. Mechanical volume reduction involves physically diminishing waste volumes through compaction, baling, shredding, or other similar measures. Mechanical reduction takes place prior to disposal at the landfill either at a dedicated facility or at the landfill site itself.

The FEIR evaluated a waste reduction and recycling alternative which considered source reduction, mechanical volume reduction, and recycling as an alternative to the proposed project.

Based upon present recycling efforts and prior waste characterization studies completed by the County, approximately 50% of all waste generated in the County must still be landfilled. A majority of jurisdictions in Northern San Diego County have already achieved a 50% diversion although these declined below 50% for the year 2000. Therefore, additional waste reduction and recycling will be difficult to achieve. The Draft Revised Countywide Siting Element considers the impact of increased waste diversion up to 75% as a strategy to achieve additional disposal capacity, but its core analyses assume that Countywide diversion will remain constant at 50% over the next fifteen or more years. While the waste reduction and recycling alternative has the ability to process and handle approximately 50% of the waste generated in San Diego County, the remaining 50% of the waste stream must be landfilled.

This alternative will not provide Northern San Diego County with a long term solution (25 years) for the disposal of waste generated in the sub-region. Instead, this alternative will continue to require the landfilling of at least 50% of the waste generated in the North County sub-region. This alternative will not select a site that can accommodate a Class III non-hazardous municipal waste disposal facility designed in compliance with all applicable environmental and permitting requirements for a Class III facility. Since this alternative does not provide for a landfill, it does not satisfy this objective. This alternative will not provide the infrastructure facility necessary to support the long-term economic growth projected in the region since it still requires that 50% of the waste generated in the sub-region be disposed of at a landfill facility. This alternative will not preserve competition among solid waste disposal sites in San Diego County to minimize future tipping fees since it does not include a landfill capable of competing with existing landfills located in other parts of San Diego County.

2. Findings on Waste Reduction and Recycling Alternative

The LEA finds that this alternative is infeasible for the following reasons:

- a. This alternative is unable to accommodate approximately 50% of the solid waste generated in the Northern San Diego County sub-region each year. In 1999, this alternative would have required the disposal of 399,733 tons of solid waste at a more distant landfill site;]and
- b. This alternative is infeasible since it fails to achieve most of the project objectives. This alternative does not provide Northern San Diego County with a long-term solution (25 years) for the disposal of its solid waste. This alternative does not provide any landfills capable of disposing of North County waste. This alternative does not provide the infrastructure necessary to support the long-term economic growth projected in the North County sub-region. Finally, this alternative does not preserve competition among solid waste disposal sites in the County so as to minimize future tipping fees for the benefit of the residents of San Diego County.

J. PRESCRIPTIVE DESIGN ALTERNATIVES

1. Facts in Support of Prescriptive Design Alternative

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.

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

The LEA finds that this alternative is feasible and environmentally superior to the proposed project and hereby adopts it as part of the proposed project for the following reasons:

- a. This alternative will reduce initial construction traffic by approximately 80 trucks per day and periodic construction by approximately 103 trucks per day thereby reducing traffic impacts of the proposed project.
- b. This alternative will reduce noise impacts associated with the proposed project by eliminating approximately 3.1 million cubic yards of excavation activities with associated excavation equipment and less blasting due to the reduced excavation. As a result, this alternative will reduce noise impacts associated with the proposed project.
- c. This alternative will result in less potential impacts to groundwater resources in the area than the proposed project due to the additional separation between the liner system and groundwater in the area and the double composite liner system. This alternative will therefore provide additional protection to groundwater resources in the area by further minimizing the likelihood of groundwater contamination by leachate or landfill gas.
- d. All of the other environmental impacts of this alternative are similar to the proposed project. This alternative does not result in any new significant environmental impacts not previously considered for the proposed project as part of the circulated draft EIR or any increase in the severity of impacts previously considered for the proposed project as part of circulated versions of the draft EIR. To the contrary, this alternative will reduce traffic, noise, and potential groundwater impacts of the proposed project from those analyzed and discussed in prior circulated versions of the draft EIR.

K. ALTERNATIVES CONSIDERED BUT REJECTED

A number of additional alternatives were considered but rejected as infeasible during the scoring sessions for one or more reasons discussed in detail in Section 6.8 of the FEIR. These rejected alternatives are discussed in this section.

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

An alternative was evaluated involving relocating the landfill footprint and ancillary facilities to another part of the Gregory Canyon site. The landfill design engineers examined the entire site to determine the most practical and least environmentally disruptive location for the landfill footprint and support facilities. The landfill is now proposed for the canyon area west of Gregory Mountain. This allows waste disposal to occur in a natural topographic "bowl" surrounded by higher elevations that block off-site views. Other locations on this site would not have the benefit of the natural topography to obscure off-site views.

If the landfill were to be located in the flat area of the site adjacent to the San Luis Rey River substantially greater visual impacts to travelers on Pala Road would occur and, because of the alluvial geologic strata, much greater water quality impacts to the San Luis Rey River and groundwater in the area might occur in the unlikely event of a release.

Locations on the north side of Pala Road and in the southwest area of the site would require substantially greater grading than with the proposed location, to lower existing elevations and create the appropriate topography for landfilling.

2. Residential Development of the Site

An alternative was evaluated that would permit the site to be developed with residences according to the Estate Development and Rural Residential Land Use Designations. This alternative would allow a minimum residential density of 2-40 acres per lot depending on slope. The 1770 acre site would support about 44 to 885 residences at this density. This alternative was rejected as infeasible because the site presently has a solid waste general plan and zoning designation passed by the initiative process. Proposition C which designated the project site solid waste would have to be amended by a majority vote of the voters in order to proceed with any type of residential development on the site.

3. Other Landfill Locations in Northern San Diego County

An alternative was also evaluated to determine whether any alternative landfilling sites in Northern San Diego County existed capable of accommodating a landfill other than the Merriam Mountain and Aspen Road sites that have been previously evaluated. The County completed three separate studies between 1986 and 1992 examining a total of 239 potential landfill sites in Northern San Diego County. These studies were completed by Edarra in 1986, SCS Engineers in 1987, and the Butler Roach Group in 1992. All of the alternative sites except Gregory Canyon, Merriam Mountain, and Aspen Road were rejected in these studies for a variety of reasons. Reasons given included close proximity to airports, location within a flood plain, located on an active fault, incompatible land uses, concerns about groundwater or surface water quality, concerns about flood flow from 100-year flood, incompatible land uses, the ability of the alternative sites to accommodate at least 30 million cubic yards of landfilling capacity, the feasibility of acquiring the necessary land to support landfills at these sites, and problems securing the regulatory permits necessary to operate a landfill at these sites.

Following completion of the three detailed environmental and engineering studies, the County concluded that only three viable landfilling sites remained in Northern San Diego County. These were the Gregory Canyon, Merriam Mountain and Aspen Road sites. Since numerous other potential landfill sites were reviewed and rejected as a result of the detailed engineering and environmental studies completed by the County in 1986, 1987 and 1992, alternative landfilling sites in Northern San Diego County are infeasible based upon the detailed engineering and environmental evaluations previously completed. In addition, alternative landfilling sites in Northern San Diego County lack the necessary solid waste general plan designation and major use permit necessary to proceed with a landfill at these sites. For these reasons, the siting of a landfill at alternative North County locations has been rejected as infeasible.

4. Composting

Composting is the process of biological decomposition of solid organic debris such as leaves, grass clippings, and other organic materials commonly found in the municipal waste stream. Bacteria and anaerobic microorganisms break down the organic portion of solid waste. Compost, the final product of the decomposition process, is the stable humus or

soil-like product which can be used as a soil conditional, mulch or fertilizer, depending on its physical properties.

The adopted San Diego County solid waste plan indicates that approximately 27% of the County's waste stream is composed of yard and wood waste. This is the component of the waste stream that has the potential to be composted.

The short-term composting objective for the County is to divert at least 8% of the commercial and residential yard and wood waste stream to waste composting operations. The medium-term composting objective for the County is to divert at least 20% of the commercial and residential yard and wood waste stream to composting programs. This means that the remaining 80-92% of waste generated in the County cannot be effectively disposed of through a composting program. Accordingly, composting does not provide a viable solution to disposal of the majority of waste generated in the County.

Composting operations conducted in the County have not been successful for a variety of reasons. One of these is that composting requires extensive amounts of land in order to accommodate the composting operation. Land requirements range from 15 acres per 1,000 tons for in-vessel composting to 25 acres per 1,000 tons for windrow composting. This would require approximately 15,000 acres of available land for composting to accommodate the one million tons of waste expected in Northern San Diego County by the years 2010 to 2015.

The Draft Revised Countywide Siting Element considers the potential impact of composting facilities as strategy to achieve additional disposal capacity. However, this impact is not considered in the core analyses of disposal need and capacity, and no specific facilities are identified.

This alternative is incapable of processing the great majority of the waste stream, the amount of land necessary to accommodate this alternative does not exist in the County, and composting operations have not proved economically viable in the past. For these reasons, this alternative has been rejected as infeasible.

5. Refuse to Energy

An alternative was also considered but rejected as infeasible to incinerate waste generated in Northern San Diego County by construction of a refuse-to-energy plant. The refuse-to-energy transformation process uses municipal refuse as fuel for a conventional power plant. There are two alternative incineration approaches, a mass-burn facility or refuse-derived-fuel facility. The mass-burn facility uses the refuse without any pre-processing. The refuse-derived-fuel alternative pre-processes the refuse before incineration to increase the combustible fraction of the refuse. The pre-processing may be accompanied by size reduction or pelletizing.

The process used to generate energy from the combustion of refuse is similar to the process of energy generation from the combustion of other fuels. The refuse is combusted at a temperature of approximately 2200 degrees Fahrenheit. This heat generates steam and water-filled tubes in the walls of the combustion chamber and in other water-filled tubes over which the hot gases of combustion pass. A series of air pollution control devices are used to clean and cool the combustion gases before discharge to the atmosphere. The process results in residual ash, which consists of the non-combustible items in the refuse

(metal, aggregate, glass) and residues from the air pollution control equipment. As a result of the reduced volume and weight of the ashes compared with raw refuse, refuse-to-energy technology prolongs landfill life.

However, incineration is highly controversial because of concerns about possible carcinogens associated with the air emissions and the ash component of the residue. Two San Diego County projects to develop waste incineration, SANDER near the Miramar Landfill and the NCRRA waste-to-energy plant at the San Marcos Landfill were denied due to public concern about health effects associated with the incineration process. Very few waste-to-energy facilities have been successfully sited in California due to these health concerns.

The Draft Revised Countywide Siting Element did not include refuse-to-energy facilities in its discussion of strategies to achieve additional disposal capacity.

The refuse-to-energy alternative is infeasible. Two previous efforts to site waste-to-energy plants in San Diego have failed as a result of public concerns about the health impacts associated with this alternative technology. The County's adopted solid waste plan does not presently include any waste-to-energy facilities as a viable means of solving the solid waste problem in light of the previous inability to secure the permits and approvals necessary to operate a refuse-to-energy plant within the County. In addition, no alternative sites exist throughout San Diego County which contain the general plan and major use permit necessary to proceed with a refuse-to-energy alternative. Given strong past opposition to this alternative and the denial of two refuse-to-energy projects in the County, it is extremely unlikely that a waste-to-energy project could be successfully sited anywhere within the County. For these reasons, this alternative has been rejected as infeasible.

6. Waste-to-Methanol Facility

The FEIR also considered a waste-to-methanol facility as an alternative to the proposed project. The Pala Band of Mission Indians reviewed a proposal for a private company to construct a waste-to-methanol facility on the Pala Reservation. The Tribe declined to act on the proposal and, at this time, there are no plans for the Tribe to construct a waste-to-methanol facility.

A waste-to-methanol facility involves the gasification of solids into synthesized gas, similar to natural gas, by exposing the solid material to indirect heat and steam within an oxygen-free closed loop reactor. Approximately 90% of the municipal waste is converted to methanol. The remainder is simultaneously converted to carbon charcoal and other inert inorganic material that is suitable for use as soil cement, landfill cover or trace element fertilizer.

The waste-to-methanol facility has the capacity to process approximately 500 tons of pre-sorted wet solid waste per day. Waste material would be hauled to the facility by truck. The material would be ground, and metal would be magnetically removed. Material is then dried, and fed to the reactor. A portion of the methanol created would be used to power the facility. The remainder would be sold for fuel.

This alternative is infeasible. This alternative would not have enough capacity to handle the quantity of waste generated in the Northern San Diego sub-region. In 1999 approximately 799,466 tons per day of solid waste were generated from this sub-region. The waste-to-

methanol facility can handle about 166,500 tons (500 tons per day for 333 operating days per year) which is approximately 22% of the waste stream from the sub-region. The remaining 78% of the waste stream could not be handled with this alternative requiring alternative disposal methods.

The Draft Revised Countywide Siting Element did not include waste-to-methanol facilities in its discussion of strategies to achieve additional disposal capacity.

This alternative does not achieve most of the objectives of the proposed project. This alternative would not provide Northern San Diego County with a long-term solution (25 years) for the disposal of waste generated in the sub-region. Since this alternative is incapable of disposing of approximately 78% of the solid waste generated in the sub-region, alternative means of disposing of this solid waste are required. This alternative would not select a North County site that can accommodate a Class III non-hazardous municipal solid waste disposal facility. However, such a facility would still be required in order to accommodate the 80% of the waste stream that must be disposed of by alternative methods. This alternative would not provide the infrastructure facility necessary to support the long-term economic growth projected in the region since it is incapable of handling 80% of the waste stream generated in the North County Region. This alternative would not preserve competition among solid waste disposal sites in the County to minimize future tipping fees since this alternative would not compete with other landfill sites in the County. For these reasons, this alternative has been rejected as infeasible.

L. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

1. Findings

The LEA finds that the No Project Alternative is the environmentally superior alternative. In accordance with CEQA Guidelines §15126.6(e)(2), requiring designation of another alternative where the No Project Alternative is designated as the environmentally superior alternative, the LEA finds the environmentally superior alternative is the Reduced Air Emissions Alternative on a local but not a regional and long-term basis. On a regional and long-term basis, the proposed project with the prescriptive design and double liner system is the environmentally superior alternative. The LEA further finds the No Project Alternative fails to achieve most of the objectives of the project and is rejected.

2. Facts in Support of Findings

- a. The No Project Alternative would eliminate the significant and unmitigable visual, cultural, and air quality impacts of the proposed project.
- b. However, the No Project Alternative would result in significantly greater vehicle miles traveled (VMT) as local jurisdictions continue to transport their waste to locations outside the North County subregion, significantly greater impacts to regional air quality from the increased VMT, regional traffic and circulation issues, and significantly greater energy use from the increased VMT.
- c. The No Project Alternative is infeasible since it fails to attain any of the project objectives. The No Project Alternative will not provide any solid waste disposal facility capable of providing a long-term solution (25 years) of disposal capacity for the North County jurisdictions. This alternative will not provide any infrastructure

necessary to support the long-term economic growth projected in the region. This alternative will not minimize potential impacts of solid waste disposal facilities upon adjoining land uses since it does not provide for any landfilling activities. This alternative will not preserve competition among solid waste disposal sites in San Diego County to minimize future tipping fees since it does not provide for any additional landfill sites in the County. This alternative does not fulfill the objective of Proposition C that all regions of the County will provide sufficient landfilling facilities to handle their own solid waste since this alternative does not permit any landfill.

- d. Since the No Project Alternative was initially selected as the environmentally superior alternative, CEQA Guidelines §15126.6(e)(2) requires the selection of another environmentally superior alternative. This alternative is the Reduced Air Emissions Alternative on a local but not on a regional and long-term basis. On a regional and long-term basis, the proposed project with the double composite liner system is environmentally superior to the Reduced Air Emissions Alternative.
- e. While the Reduced Air Emissions Alternative would eliminate the significant and unmitigable NO_x and PM₁₀ impacts of the proposed project, this alternative would also create a regionally significant and unmitigable air quality impacts and substantially increase both traffic and energy conservation impacts over the proposed project.
- f. The Reduced Air Emissions Alternative is infeasible since it fails to meet most of the project objectives. This alternative is capable of disposing of only 211,147 tons of the 799,466 tons of solid waste generated in the North County subregion in 1999. Consequently, this alternative would not meet the project objective to provide a long-term solution for 25 years for disposal of waste generated in the North County jurisdictions. This alternative would not provide the infrastructure necessary to support economic growth in the North County subregion. This alternative would not preserve competition among solid waste disposal sites in San Diego County to minimize future tipping fees since the limited capacity of this alternative requires that the great majority of North County waste continue to be disposed of at other existing landfill facilities.
- g. The proposed project with the prescriptive design and a double liner system has been adopted since this alternative will reduce traffic, noise, and potential groundwater impacts associated with the proposed project.

IV. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL IMPACTS

A. Findings

The LEA finds that the proposed project would involve the following irreversible environmental changes to existing resources on the project site: (1) The commitment of approximately 308 acres of the existing property to landfill uses; (2) The commitment of energy and water resources as a result of the construction, operation and maintenance of the proposed landfill facility; (3) Alteration of the existing topographic character of the sites; (4) Consumption of soil resources; (5) Use of fossil fuels to operate fixed and mobile construction equipment including bulldozers, graders, trucks, dump trucks and generators; (6) Direct and indirect impacts on biological resources on the project site, including native

plant communities, birds and mammals; (7) Removal of, or potential destruction of archeological and paleontological resources on the project site; and (8) Impacts to identified cultural resources ;Gregory Mountain and Medicine Rock.

B. Facts in Support of Findings

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. However, the energy needs of the project are not significant and can be provided by available facilities in the area. The project will need a maximum of 165 acre-feet per year during construction and a maximum of 190 acre-feet per year during operations. Existing wells on the project site presently have the capacity to provide approximately 1,000 acre-feet per year of water. These resources, combined with other available on-site and off-site sources of water, are sufficient to accommodate the project construction and operations.

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 will actually result in a net long-term gain of 14.8 acres of wetland habitat and 88 additional acres of upland terrace habitat that can be utilized by the protected arroyo toad, least Bell's vireo, and southwestern willow flycatchers. 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 has 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

A. Findings

The LEA finds that the project will not result in any growth-inducing impacts.

B. Facts in Support of Finding

A project is regarded as growth-inducing if it can foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. (Guidelines §15126.2(d)). Included in this definition are projects that would remove obstacles to population growth, such as extending public services in the previously unserved areas. The proposed project will not directly result in any growth-inducing impacts.

The project will not expand infrastructure into an undeveloped thereby providing the opportunity for growth. The project will not open or add new roads, except for the access road into the facility. This access road will be available solely to accommodate traffic associated with the project. The project does not require the extension of any water or sewer facilities in order to accommodate construction or operation. Water for the proposed project will be provided from on-site wells or from water trucking. 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. Construction of the project will last approximately 9-12 months and create 30-40 temporary construction jobs. Construction workers will be drawn from the larger San Diego region where these workers already occupy existing housing. Approximately 20 new full-time plant operation jobs will be required to operate the landfill at project build-out. Assuming an average household size of 2.78 persons, this will result in the maximum of approximately 56 new persons who could permanently move to the area if personnel were not drawn from persons who already possess housing in the San Diego region. If all 56 persons moved to the Pauma Region, this would represent only a 1.0% increase in the total 1998 population within the Pauma Region. The 1998 Department of Finance estimates a 6.2% vacancy rate for San Diego County. There is existing housing available in the area to adequately accommodate any additional workers that may be needed for full-time plant operations. The project as currently proposed merely accommodates anticipated growth in the North County region by providing solid waste facilities capable of disposing of solid waste projected to be generated within this sub-region. The project itself does not encourage or discourage population growth in the area. It merely accommodates this growth as it proceeds. For these reasons, the project will not be growth-inducing.