

4.15 PUBLIC SERVICES AND UTILITIES

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

4.15.1 GAS AND ELECTRICITY SERVICE

4.15.1.1 Existing Setting

Natural Gas

Gas service to the project site is provided by San Diego Gas and Electric (SDG&E). The nearest gas source to the landfill site is an existing 16-inch transmission main, located west of the project site, along Rice Canyon and crossing SR 76 to Couser Canyon Road. An additional 36-inch gas main is proposed west of the 16-inch transmission main; however, the installation date for this gas main has not yet been determined.

Gas service to the existing customers residing at Lake Rancho Viejo (south of SR 76 and east of I-15), approximately 1.5 miles from the site, is provided by an eight-inch main that extends from the existing 16-inch transmission main.

Electricity Service

The project site lies within the service territory of SDG&E. SDG&E maintains a diverse network of power-generating sources and a grid distribution system that serves all of San Diego County. Power to the project site would be available from the Pala Road substation, located northwest of Sycamore and Pala Road.

A 300-foot wide SDG&E easement for the Escondido-Talega 230kV and the Pala-Lilac 69kV electric transmission lines traverses the eastern portion of the project site from north to south for approximately 4,000 feet. The 230kV transmission line within the project site carries 230,000 volts, providing power to a transmission substation at its terminus in Escondido and its terminus in Talega for distribution to various parts of the County. SDG&E maintains access to the transmission lines within the easement. For further information on the existing transmission lines, refer to Land Use and Related Planning, Section 4.1.

4.15.1.2 Impact Significance Criteria

Using the environmental questions in the CEQA Guidelines (Appendix G), the project would create a significant effect on the environment if the proposed project would encourage activities that result in the use of large amounts of energy or use energy in a wasteful manner.

4.15.1.3 Potential Impacts

Short-Term (Construction) Impacts

Natural Gas

The use of natural gas service during construction operations is not anticipated. Grading and construction equipment generally operate on gasoline, diesel fuel, or electric power, not natural gas sources. No significant impacts to gas service and facilities are anticipated to result from construction activities.

Electricity

The use of electrical facilities during construction operations will primarily be limited to the temporary use of electrical equipment and temporary use of power tools necessary for structural assembly. Due to the limited need for electricity and electric facilities, electrical demand during the construction phase is not anticipated to be substantial.

The proposed project would require relocation of the existing SDG&E easement and transmission towers and lines that run through the site. Relocation of the transmission lines, which will not occur until the landfill operations are in that area of the footprint (approximately 10 years from opening), will require continued coordination with SDG&E as final design of the landfill is prepared. Careful review of the project design by SDG&E during the planning process and continued coordination with SDG&E will ensure that relocation of the transmission lines does not impact the existing system.

Although the relocation of transmission lines would not impact electrical service, a higher level of maintenance may be required due to the addition of a third tower. In addition, the relocation of the towers on a steeper slope could make it more difficult to gain access to the relocated towers and lines. However, access to the lines and towers would be from the deck of the landfill. According to SDG&E, the transmission lines can be relocated to the east (or west, see Chapter 6, Alternatives) without impacts to the transmission system. No significant short-term impacts to electrical facilities are expected to result from the project implementation. Refer to Land Use, Section 4.1 for a further discussion of this issue.

Long-Term (Operational) Impacts

Natural Gas

The use of natural gas services and facilities during landfill operation is not anticipated. Operations equipment will generally utilize gasoline, diesel fuel, or electric power, not natural gas sources. No significant impacts to natural gas services or facilities are anticipated to result from operational activities.

Although SDG&E has indicated that existing gas transmission mains can provide ample capacity to accommodate the necessary gas loads for the landfill, no gas service will be needed during the operation phase of the project; therefore, no impacts to gas service are anticipated.

Electricity

The landfill facilities and operations requiring electricity will include: a visitor center; the shop office; plant office; maintenance office buildings; truck scales and fee booths. SDG&E has indicated that service to the project site can be accommodated from the Pala substation. Utility connections would be undergrounded in the access road from SR 76 to the facilities area. The

power would have to be stepped down for distribution to the project site. Upon project approval, a service agreement would be initiated and the project applicant would be responsible for the cost for electrical service. No significant impacts are anticipated in connection with electrical service to the project. Due to the limited need for electricity, electrical demand under the proposed project is not anticipated to be substantial.

Site Closure Impacts

No significant impacts to gas and electrical service are expected to result with landfill closure. No gas lines will be needed to service the project area; closure activities will therefore, not affect gas services. Electricity service provided to the project site will remain intact following the landfill closure.

First San Diego Aqueduct Relocation Option

Aqueduct relocation will not increase gas or electricity usage and no significant impacts to gas and electrical service are expected to result from the relocation.

4.15.1.4 Mitigation Measures

Although no significant impacts are anticipated to gas and electricity service, the applicant shall coordinate with SDG&E to ensure that their facilities on the site are protected to prevent significant disruption to utility services during construction. Refer to Section 4.1, Land Use and Related Planning, for the specific mitigation measure.

4.15.1.5 Level of Significance After Mitigation

No potential impacts to gas and electricity will result from project implementation; therefore, no mitigation measures are necessary.

4.15.2 TELEPHONE SERVICE

4.15.2.1 Existing Setting

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. Any lines in need of repair are periodically maintained by Pacific Bell to provide continued service to their customers.

4.15.2.2 Impact Significance Criteria

Although CEQA guidelines do not define significance criteria for telephone service, impacts to telephone service would be considered significant if the project's demand exceeds the limits of existing planned facilities intended to provide telephone service to the project site.

4.15.2.3 Potential Impacts

Short-Term (Construction) Impacts

No short-term (construction) impacts are expected to result from project implementation. Coordination with the telephone service provider during the construction phase will reduce short-term impacts associated with telephone service in the site vicinity, to a level of insignificance.

Long-Term (Operational) Impacts

Telephone service will be required at the landfill site within the facilities and operation area; e.g., the visitor center and offices. An additional phone line would be required at each of the fee booths for computer links with the truck scales. Pacific Bell would provide telephone service to the project site from the main distribution cable along Pala Road. Since the project site is outside of the base rate area of Pauma Valley, there would be a service fee for extending the necessary cable for every foot of cable beyond 300 feet. A service agreement would be initiated upon project approval, together with payment of funds provided for the expense of extending the service. Pacific Bell has not indicated any difficulty in serving the proposed project. No significant impacts are anticipated in connection with telephone service to the project site.

Site Closure Impacts

No significant impacts to telephone service are expected to result with landfill closure. Telephone service provided to the project site will remain intact following the landfill closure. No significant impacts are anticipated

First San Diego Aqueduct Relocation Option

No significant impacts to telephone service are expected to result from the aqueduct relocation.

4.15.2.4 Mitigation Measures

No significant impacts are identified to telephone service; therefore, no mitigation measures are required.

4.15.2.5 Level of Significance After Mitigation

No significant impacts are identified; therefore, no mitigation measures are necessary.

4.15.3 WATER SERVICE AND FACILITIES

4.15.3.1 Existing Setting

The project site is within the jurisdiction of the San Luis Rey Municipal Water District (SLRMWD) and Rainbow Municipal Water District (RMWD). Approximately 1,420 acres of the project site are located within the service area of SLRMWD (refer to Exhibit 4.15-1). The San Luis Rey River groundwater is the sole source of the water to landowners within the SLRMWD area. There is no imported water supply or backup water supply available within the boundary of the SLRMWD. Landowners within the SLRMWD's boundaries rely exclusively on groundwater (wells) to supply their domestic, agricultural, and commercial water demands. The applicant has signed an agreement with the SLRMWD and several private landowners downstream of the project which is discussed in more detail in Section 4.15.3.3.

The locations of known wells, both on site and in the project area, are shown on Exhibit 4.3-2. An evaluation of the existing wells will be made during project construction to determine if the wells can be used. If an existing well is to be used, it will be properly surface sealed to prevent surface runoff infiltration into the well. If it were found that existing wells cannot be used, new wells would be installed on site.

FALLBROOK P.U.D.

**RAINBOW
M.W.D.**

**SAN LUIS REY M.W.D.
(not member of SDCWA)**

**YUIMA
M.W.D.**

**VALLEY CENTER
M.W.D.**

LEGEND

M.W.D. - Municipal Water District
P.U.D. - Public Utilities District



NOT TO SCALE

Sources: SDCWA, 1995; PCR Services Corporation, 1999

Exhibit 4.15-1
Water District Boundaries

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

Historical water use for the site was estimated to be 465 AFY.¹ Currently, the Verboom dairy is operational on the site and eleven residences are occupied in association with the dairy. Estimates of current water use based on these existing land uses range from 78 to 187 AFY.² The current water use is between 278 and 387 AFY less than the historical use of 465 AFY. This is attributable to the reduction in the intensity of land use on the project site.³

San Diego County Water Authority

The San Diego County Water Authority (SDCWA) is a Member Agency of the Metropolitan Water District (MWD) and maintains two aqueducts (First and Second) for the distribution of water to 24 SDCWA member agencies. The MWD owns, operates, and maintains these aqueducts north of San Diego County and continuing a number of miles into San Diego County. Responsibility for the First San Diego Aqueduct changes to SDCWA within the project site. Ownership of the Second San Diego Aqueduct changes to SDCWA to the west of the project site. As shown in Exhibit 4.15-1, the First San Diego Aqueduct, which consists of two 48-inch pipelines (Pipelines 1 and 2), is located along the western boundary of the landfill footprint. From north to south the aqueduct enters the San Luis Rey River Canyon and the project site and extends south along a ridge crossing under SR 76 and crosses underneath the San Luis Rey River. The aqueduct continues southerly through the site along another ridge, paralleling the length of Gregory Canyon.

The First Aqueduct provides San Diego County with approximately 15 to 20 percent of its water supply. As noted above, the SDCWA controls the Aqueduct beginning within the project site and continuing southward. The water flowing through Pipelines 1 and 2 is treated water for the SDCWA service area and is normally a blend of State Project water and Colorado River water. The current design capacity of the First Aqueduct, both Pipelines 1 and 2, is 180 cubic feet per second (cfs). A third pipeline (Pipeline 6) has been approved within the vicinity of the First Aqueduct alignment. As with Pipelines 1 and 2, MWD ownership of Pipeline No. 6 will extend to within San Diego County, to within the project site. Pipeline No. 6 is proposed to be 108 inches in diameter and have a capacity of 620 cfs (see Chapter 5.0, Cumulative Impacts).

¹ This estimate was provided to SLRMWD by previous landowners who occupied the portion of the site within the SLRMWD boundary at one time.

² There are currently 1,300 head of dairy cattle and 11 occupied residences on the Verboom Dairy property. Based on a factor provided by Pete Verboom in July 2000, water usage for the dairy is estimated at 50 to 125 gallons per day per head of cattle, which results in a water use of 72.8 to 182 AFY for the dairy. Based on a factor provided by Alice Web, Resource Specialist at MWD, July 28, 2000, residential water use is estimated at 411 gallons per day, resulting in a water use of 5.1 AFY. The water use for the dairy and residences combined equals 78 to 187 AFY.

³ Uses previously located on the site and their associated water use are: Lucio Dairy—about 150 AFY, Embesi orchard and residence—about 50 AFY, and Guthrie agriculture and residence—about 128 AFY.

As indicated by SDCWA, groundwater use within basins near the proposed landfill (Oceanside and the Rainbow Municipal Water District) averages over 2,000 acre-feet (one acre-foot = 325,850 gallons) per year. Additional expansion projects planned for the area would increase local groundwater use by at least another 3,000 acre-feet per year (AFY). The three basins downstream from the proposed project site are among those having the highest potential for future development.

4.15.3.2 Impact Significance Criteria

In accordance with the CEQA Guidelines (Appendix G), the project would create a significant impact if the proposed project would encourage activities that use large amounts of water in a wasteful manner.

4.15.3.3 Potential Impacts

Short-Term (Construction) Impacts

Water demand during the initial project construction would include water for dust control and liner construction.⁴ Total estimated water usage during the construction phase is anticipated to be between 150,000 to 175,000 gallons per day (gpd) or a maximum of approximately 165 acre-feet per year.⁵ An estimated range is provided because the water use will vary depending on weather conditions and time of year. For instance, on a rainy day, the amount of water used to control dust would be low, if any. On the other hand, very dry days such as those occurring during the Santa Ana winds would require a higher amount of water use. Therefore, it is estimated that the amount of water used for dust control would range from 0 to 30,000 gallons per day (gpd) or approximately 0 to 28.3 acre-feet per year for dust control during initial construction.

The total project water use of 150,000 to 175,000 gpd during initial construction includes water use for dust control as noted above, which is estimated between 0 to 20,000 gpd and clay liner construction, which is estimated to use 125,000 gpd. Water use for the clay liner is estimated based on assumed optimum moisture content of the clay and the amount of water necessary for clay liner development.

Water would be supplied by groundwater wells on-site during the initial construction phase. The projected water use of approximately 165 acre-feet per year of water for initial construction would be less than the estimated historical water use of 465 AFY. The project's water demand of 165 AFY during initial construction falls within the estimated range of 78 to 187 AFY of current water use on the site. Therefore, no significant impacts to water supply are anticipated to result from project construction. (See the discussion under Gregory Canyon Landfill Agreement, of this Section for an explanation of the 465 acre-feet per year.)

Long-Term (Operational) Impacts

Water demand during operation would be highest when landfill operation occurs simultaneously with periodic construction. Water during landfill operation and periodic construction would be

⁴ Water usage estimates provided by George Zanter, Herzog Environmental, Inc., July 6, 1999.

⁵ 1 acre-foot = 325,850 gallons of water.

required for the following activities: dust control, landscape irrigation, ancillary area usage, liner construction and fire protection (if needed).

The estimated maximum water use would be about 205,000 gpd or approximately 193 acre-feet of water per year. This water would also be derived from existing wells on-site. However, similar to the initial construction phase, water use will vary depending on weather and time of construction.

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

As indicated, water would be used for landscape irrigation. Irrigation will be necessary for small areas of permanent landscaping of the landfill entrance and around the administration facilities, as well as within the proposed wetland and oak tree mitigation sites. All other landscaped areas will be planted with non-irrigated, drought tolerant native vegetation, which would be watered only at planting and during the initial establishment period. The need for water for irrigation purposes would increase as the landfill nears closure.

During periodic construction, it is estimated that between 0 to 30,000 gpd of water would be used for dust control, 0 to 10,000 gpd of water would be used for ancillary usage, landscape irrigation, and fire protection (if needed), and approximately 125,000 gpd for installation of the clay liner. During periodic construction, approximately 125,000 to 165,000 gpd of water would be used, or approximately 118 to 155 AFY.

Based on the above estimates of project water demand, the highest operational water demand, which would be 193 AFY, would occur when waste is being accepted and periodic construction occurs to prepare the next cell. In comparing the project's highest water demand (operation and periodic construction) to the historical water use of 465 AFY, the project would result in an overall reduction in water demand of 272 AFY. Comparing the project's water demand to the current water use, the project would result in an increase and decrease depending on the stage of the project. During the project's highest water use (operation and periodic construction), the project would result in an increase of 6 to 115 AFY over the current water use. However, when the landfill is operating alone (without periodic construction) and the water demand is 38 AFY, this would be a reduction of 40 to 149 AFY from the current water demand. While the project could result in an increase in water use compared to the current water use, the increase would occur only during the times when periodic construction occurs simultaneously with the acceptance of waste. The majority of the time, the project would use less water than the current estimated water use on the site. While the project could result in an increase in the water use over the current uses, the project would result in a reduction of water use compared to historical water use on-site. Even with the increase compared to current water use, the project would not have a significant impact, since the project would not encourage activities that use large amounts of water in a wasteful manner, the basin is not in an overdraft situation, (see Section 4.3, Hydrogeology), and there is sufficient water capacity in the basin for the project.

A 20,000-gallon water tank would be provided on-site near the ancillary facilities area. The water tank would be continuously refilled as water is used to maintain 20,000 gallons of stored water. A level control feature built into the water tank will regulate the continuous supply of water. Water will be provided from on-site wells and piped to the storage tank, as well as to the office and maintenance facilities. Water stored in the water tank will be used for refuse disposal

operations, which primarily include dust control and fire protection. Spray trucks used during daily operations will be filled from the storage tank.

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 effluent from the chemical toilets for off-site treatment and disposal.⁶

Water appropriation rights are subject to the approval of the State Water Resources Control Board (SWRCB). An application (Application No. 30038) to appropriate water was submitted to the SWRCB on October 17, 1991. The application indicated a total water use of 122,751 gpd or about 116 acre-feet per year. The following estimates of water use were provided in the application: 50,000 gpd for dust control, 62,751 gpd for refuse compaction and liner construction, and 10,000 gpd for equipment cleaning and maintenance. No action has been taken on Application No. 30038. This application may not be needed, since there is available riparian water on-site.

Water providers, including SDCWA, RMWD, MWD, SLRMWD and Yuima Municipal Water District have expressed concerns regarding potential future contamination of surface or groundwater from the landfill leakage or leachate. As indicated by local water service providers, any degradation of these existing local water resources resulting from the proposed project could require expensive treatment before use, or result in additional demands for imported water and greater strain on Northern California and Colorado River supplies. SDCWA has indicated that a capital project has been implemented to examine the size, water quality, and geology of the local groundwater basin to determine whether the basin is suitable for future pumping and storage. As specified in an agreement between SLRMWD and Gregory Canyon, Ltd., the project includes the installation of a reverse osmosis system for the treatment of groundwater if impacts occur. Impacts to water quality are further discussed in Section 4.3, Hydrogeology, and 4.4, Surface Hydrology. This analysis concludes that with project design features and mitigation measures, the project will not significantly impact water quality.

Reclaimed Water

Currently, no reclaimed water facilities exist to serve the project site. As indicated by local wastewater treatment providers (San Luis Rey Wastewater Treatment Plant and the Pala Indian Reservation Treatment Plant), the use of reclaimed water from local treatment plants would require substation upgrades to accommodate reclaimed water needs.

Although not currently proposed for use at the landfill, any reclaimed water used for construction and operation of the landfill would, at a minimum, have to meet California Administrative Code, Title 22, Water Reclamation Criteria, which is regulated by the State Department of Health Services (DHS). Additionally, the use of reclaimed water at the Gregory Canyon Landfill would have to be approved by the RWQCB. Water used during construction of the liner would have to be processed to a purity that would be considered safe to enter the ground water table, as determined by the RWQCB.

⁶ If in the future the landfill operator were to use groundwater for potable supply, any necessary permits and environmental review would be completed.

San Luis Rey Municipal Water District

On April 15, 1996, an agreement was executed by the proponents of the Gregory Canyon Landfill, SLRMWD, and several private landowners located downstream of the landfill project. The purpose of the agreement is to ensure that the construction, operation, and closure of the Gregory Canyon Landfill project are carried out in a manner that will protect the quality of the water in the Pala Basin. Provisions outlined in the landfill agreement include stipulations, which address the protection of water supply, water rights, groundwater monitoring, liability, and closure. The agreement does not alleviate the project proponent of the obligation to comply with any environmental monitoring and abatement requirements established in the RWQCB waste discharge permit.

As indicated in the Gregory Canyon Landfill Agreement, historical use of water from the portion of the Gregory Canyon property within the SLRMWD totaled approximately 465 acre-feet per year. Water within the project site was used primarily for domestic, dairy and agricultural irrigation purposes. Groundwater wells are not metered and this estimate was provided to SLRMWD by previous landowners who occupied the portion of the site within the SLRMWD boundary at one time. For a comparison of the project's water use with historic and current water use, please see the discussions under sections entitled Short-Term (Construction) Impacts and Long-Term (Operational) Impacts.

The provisions of the San Luis Rey Municipal Water District Agreement, dated April 15, 1996, address the issues of the impacts to water quality and quantity in the Pala Basin that could result from the construction, operation and closure of proposed project. The terms of the San Luis Rey Municipal Water District Agreement are incorporated into the project or are proposed as mitigation measures. A complete copy of the San Luis Rey Municipal Water District Agreement is provided in Appendix C.

Site Closure Impacts

No significant impacts to water services are expected to result with landfill closure. No water lines will be needed to service the project area; closure activities will therefore, not affect water services. No significant impacts related to closure are anticipated.

First San Diego Aqueduct Relocation Option

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

4.15.3.4 Mitigation Measures

Although no significant impacts to the provision of water service are anticipated, as stated in the San Luis Rey Municipal Water District Agreement, Gregory Canyon Ltd. acknowledges that: 1) water rights held by SLRMWD and landowners within the District are superior to any appropriative water rights that may be granted by the State Water Resources Control Board (SWRCB); 2) as condition of any permit, issued by the SWRCB, Gregory Canyon Ltd. will reduce its diversion of water if the amount of water available is insufficient to meet the

reasonable and beneficial needs of the District or landowners within the District; and 3) Gregory Canyon Ltd. will identify and use an alternate water supply for construction and operation of the landfill if the amount of water is insufficient to meet the reasonable and beneficial needs of the landowners within the District. Additional mitigation measures consistent with terms contained in the San Luis Rey Municipal Water District Agreement are provided in Section 4.3, Hydrogeology.

4.15.3.5 Level of Significance After Mitigation

No potential impacts to the provision of water service are identified; therefore, no mitigation measures are necessary.

4.15.4 WASTEWATER SERVICE AND FACILITIES

4.15.4.1 Existing Setting

No sewer collection facilities currently exist on the project site. A 12-inch sewer line maintained by RMWD exists approximately 1.5 miles west of the project site. As indicated by the San Diego County Public Works Department and RMWD, there are no plans for future expansion of services to the project site.

4.15.4.2 Impact Significance Criteria

In accordance with the CEQA Guidelines (Appendix G), the project would create a significant effect on the environment if it would be necessary to extend a sewer trunk line with capacity to serve new development.

4.15.4.3 Potential Impacts

Short-Term (Construction) Impacts

Portable chemical toilets will be used by construction workers at the landfill. The applicant will contract with a sewage disposal service to remove effluent from the chemical toilets for off-site treatment and disposal. No additional sewer service would be required at the project site with the implementation of the landfill project. Therefore, the proposed project would not have a significant impact to sewer service.

Long-Term (Operational) Impacts

Various sources of wastewater would be generated by the Gregory Canyon Landfill project, including leachate and landfill gas condensate. A leachate collection and removal system will be installed above the composite liner system to collect and remove leachate that may be generated from the landfill. Leachate will be transported to an off-site plant for treatment and disposal.

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 effluent from the chemical toilets for off-site treatment and disposal. Permanent restroom facilities with an on-site septic system may be installed in the future. Approval of a percolation test by the DEH will be required. No additional sewer service or sewer line extensions will be needed to serve the proposed project. No long-term impacts to sewer service are anticipated from project implementation.

Site Closure Impacts

No significant impacts to wastewater services are expected to result with landfill closure since no water or sewer lines will be needed to service the project area. If a septic system were installed, it may remain if it determined the need exists or if no need exists it would be removed in accordance with County requirements. A further analysis of potential impacts to wastewater will occur during the review and approval of the closure plan. No significant impacts are anticipated.

First San Diego Aqueduct Relocation Option

No significant impacts to wastewater service are expected to result with aqueduct relocation.

4.15.4.4 Mitigation Measures

No significant impacts were identified to sewer service; therefore, no mitigation measures are required.

4.15.4.5 Level of Significance After Mitigation

No impacts are identified to wastewater facilities or service; therefore, no mitigation measures are necessary.

4.15.5 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

4.15.5.1 Existing Setting

The project site is located in a State Responsibility Area (SRA) and is not within a fire district. The site is within close proximity to the North County Fire Protection District (NCFPD), the Deer Springs Fire Protection District, the Yuima Municipal Water District (which provides fire protection service), the Valley Center Fire Protection District, and the California Department of Forestry and Fire Protection (CDF).

The NCFPD is the closest fire protection district to the project site. Although the project site is not within the NCFPD's jurisdiction, it is within the NCFPD's sphere of influence. The NCFPD consists of 90 square miles and is bounded by Riverside County on the north, Camp Pendleton on the west and the community of Rainbow to the east. NCFPD currently serves an estimated population of 42,500 persons and maintains six fire stations. NCFPD's station #4 is located at 4375 Pala Mesa Drive, which is approximately five miles east of the proposed landfill site. The station houses a Paramedic engine company and a Basic Life Support ambulance company.

The NCFPD, under state and County fire master mutual aid agreements, has a mutual aid agreement with the local fire service districts, mentioned above. CDF has three stations in the project vicinity, Miller, Rincon, and Valley Center, that could respond under mutual aid agreement, should NCFPD request additional fire protection services. An Amador Plan allows the Rincon CDF Station to remain open year round. The Rincon Station is located 12 miles east of the project site off SR 76. The Rincon Station currently maintains one engine truck during winter and two engine trucks during the remaining nine months with two to three firefighters assigned to the station. The response time from the Rincon Station to the site is approximately 10 to 15 minutes. The Miller Station is located approximately 6.5 miles south of the project site and maintains one fire engine. Currently, the Miller Station is not open year round, however it is scheduled to be open annually, under an Amador Plan, beginning in December 1999.

The Pala Reservation Fire Department (RFD) provides first responder services (one fire engine) to emergency medical calls in the project area. Ambulance service is provided by the NCFPD. The Rincon and Miller CDF Stations, if available, will provide first responder medical services if NCFPD or Pala RFD is unavailable. It is anticipated that paramedic services will be provided to the entire area, including the landfill site, by the Valley Center Fire Protection District within one year.⁷

4.15.5.2 Impact Significance Criteria

According to the CEQA Guidelines (Appendix G), a significant impact would result if the proposed project would:

- have a substantial adverse physical impact associated with the provision of new or physically altered governmental facilities,
- create the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire services.

4.15.5.3 Potential Impacts

Potential impacts on public fire protection services could occur from brush or refuse fires at the proposed Gregory Canyon Landfill. Fire prevention and control measures incorporated into the project include the use of a firebreak, which is the primary fire prevention measure, between the refuse and the undisturbed natural areas surrounding the landfill in accordance with the California Public Resources Code Section 4373.

If water is needed for fire suppression, water would be available from on-site water trucks and from the proposed 20,000-gallon water tank on-site, located adjacent to the ancillary facilities area. In addition, fire extinguishers would be available at the entrance facilities and trailers and all landfill equipment would be equipped with fire extinguishers.

Local fire districts will be notified of all fires occurring on the site and the status of the incident. Landfill personnel would be advised of fire protection procedures to be followed in case of a fire. The landfill would be required to meet the appropriate San Diego County and fire protection district requirements for availability of fire suppression water and fire extinguishers.

The State Water Resources Control Board has adopted comprehensive regulations (Subchapter 15) for landfill design and construction which include requirements for monitoring and control of methane gas releases. The probability of a fire being ignited from methane gas is substantially reduced due to the landfill's gas recovery system, which would create a considerable margin of safety over and above the established state standards. In addition, the application of daily and intermediate cover limits the amount of oxygen available for combustion. For an additional description of the landfill's proposed gas recovery system, see Chapter 3.0, Project Description, and Section 4.16, Human Health and Safety.

Although hazardous waste will not be accepted at the proposed landfill, municipal solid waste brought to the site may contain small quantities of technically hazardous waste from households

⁷ Telephone communication with Kevin O'Leary, Battalion Chief, California Department of Forestry and Fire Protection, November 2, 1999.

and certain commercial, industrial and medical facilities. A Hazardous Waste Exclusion Program (HWEP) is proposed to comply with state and federal regulations. Implementation of the HWEP will ensure that safety measures are followed and fire and safety hazards associated with hazardous wastes are minimized. A designated hazardous waste storage area will be located on-site for the temporary disposition of wastes collected as part of the HWEP program. This area will be specifically designed for the handling and storage of hazardous wastes, including storage containers which are safe and convenient for storing identified wastes. For an additional description of the landfill's proposed HWEP, see Chapter 3.0, Project Description, and Section 4.16, Human Health and Safety.

Landfill personnel would have the necessary resources 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. In addition, the designated fire service protection district for the project site would be capable of responding quickly to a fire or other emergency at the landfill; therefore, no significant impacts are anticipated in connection with fire protection service. See Section 4.16 (Human Health and Safety) for a complete discussion of additional fire hazards. Other types of fires such as those associated with tire storage within the landfill footprint are not anticipated to occur.

The project would not have a substantial adverse physical impact associated with the provision of new or physically altered fire-fighting facilities. The project would not create the need for new or physically altered fire-fighting facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire services.

In the event of a fire at the project site, 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 master aid agreement with other local fire districts. This might delay response time to the site in the event of a fire. However, the delay would be minimal since the Rincon station is located only 12 miles from the project site and has a response time of 10 to 15 minutes. Therefore, no significant impacts will occur from the delay. The Battalion Chief of the California Department of Forestry suggests that the project site annex into a nearby fire district to receive primary fire protection service.⁸ The closest fire protection district to the project site is the NCFPD.

The project has fire protection measures and services available although not for all types of fires. The applicant has indicated a willingness to pursue annexation into a nearby fire district.

Site Closure Impacts

No significant impacts to fire protection services are expected to result with landfill closure. Hazardous materials and/or flammable materials will be removed from the landfill site and transported to the appropriate disposal facility. Removal of hazardous and/or flammable material will comply with all applicable local, State and federal standards.

⁸ Telephone Communication with Kevin O'Leary, Battalion Chief, California Department of Forestry and Fire Protection, Valley Center Fire Protection District, November 30, 1999.

SDCWA Aqueduct Relocation Option

No significant impacts to fire protection service are expected to result with aqueduct relocation.

4.15.5.4 Mitigation Measures and Project Design Features

Project Design Features

- No burning of refuse will be allowed.
- A firebreak of 150 foot minimum clearance around the perimeters of the landfill footprint will be maintained unless soil cover is placed regularly throughout the day in compliance with California Public Resources Code Section 4373.
- The application of daily and intermediate cover will be performed.
- Load checking for smoldering or burning wastes will be performed. Smoldering wastes will be separated if spotted.
- Covering of any fire with soil will occur.
- Extraction wells will be monitored for temperature and oxygen content.
- Equipment with internal combustion engines will have spark arrestors.
- The removal of flammable debris from the under carriages and engine compartments of heavy equipment will occur on a regular basis.
- Fire extinguishers will be placed at the entrance facilities, in the administration and operations trailers, and in landfill equipment and vehicles.
- Hazardous materials, collected as part of the Hazardous Waste Exclusion Program, will be stored in fire proof containers located in the ancillary facilities area.
- Storage of tires within the landfill footprint will occur in compliance with the County's 1994 Uniform Fire Code, Section 1103.3.6, Outside Storage of Tires, as well as Title 14, Section 1354 of CCR.
- Tire shredding will occur a minimum of every six months.

Impacts and Mitigation Measures

The project would not cause a substantial adverse physical impact associated with the provision of fire services and would not require new or physically altered facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios or response times. However, the site is not located within a fire district boundary. Therefore, to ensure adequate fire protection services, the applicant has indicated a willingness to pursue annexation into a fire district within close proximity to the site.

4.15.5.5 Level of Significance After Mitigation

No fire service impact would result from the proposed project. Therefore, no mitigation measures are necessary.

4.15.6 LAW ENFORCEMENT

4.15.6.1 Existing Setting

Law enforcement services in the project site are provided by the San Diego County Sheriff's Department. All traffic enforcement and accident investigation services in the project site are provided by the California Highway Patrol (CHP). The project site is located in Beat 801 and is served by the Valley Center Substation, located at 28205 North Lake Wohlford Road, approximately 15 miles south of project site. The average response time to emergency calls in Beat 801 is approximately 11 minutes.

The Valley Center Substation averages three to five officers on duty per shift. The present officer strength of this station is one officer to every 1,389 people. The San Diego County Sheriff's Department maintains emergency mutual aid agreements with most law enforcement agencies throughout the State of California. These agreements take effect when requests for assistance are made by member agencies during major emergencies after all local resources have been exhausted. The department has completed a space/need analysis for the Valley Center Substation. The study indicates that a larger substation should be built as soon as possible. The funding and location have yet to be identified, but it is expected that a new facility will be completed in 1999.

4.15.6.2 Impact Significance Criteria

In accordance to the CEQA Guidelines (Appendix G), the proposed project will have law enforcement impacts if it would result in any of the following:

- Demand an increase for law enforcement services to a degree that current service standards are not maintained.
- Interferes with emergency response or evacuation plans.

4.15.6.3 Potential Impacts

Short-Term (Construction) Impacts

No significant construction-related law enforcement impacts are expected to result from project implementation. Site access would 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 provision of law enforcement services to surrounding land uses will not be impacted during the project construction period.

Long-Term (Operational) Impacts

Solid waste management facilities generally do not represent a significant source of criminal activity. Therefore, the proposed project is not expected to have a significant impact on the workload of state or local law enforcement agencies.

Project implementation will not result in impacts to the County's emergency response and/or evacuation planning programs. Any future projects proposed within the project site will be consistent with the Public Safety Element of the General Plan. This element of the County's General Plan addresses natural hazards (e.g., earthquakes, flooding, fires, etc.) and community services (e.g., police protection and emergency disaster relief services). The County adopted goals to promote public safety, including the provision of adequate levels of police and fire

protection throughout the General Plan area. It is incumbent upon the applicant to mitigate any deficiencies in the emergency disaster services and to ensure that they are designed to function adequately during and after a disaster or emergency event.

As indicated above, the average response time to the project site is approximately 11 minutes. According to the San Diego County Sheriff's Department, a response time of greater than six minutes for emergency calls is considered a "low" response, as defined by the *California League of Cities' Effectiveness Measures for Police Services*. Given the nature of landfill operations, few police responses are expected to occur with project implementation. Therefore, project development is not expected to exacerbate the existing low response time to the project site.

Operation of the landfill will require an estimated 21 new full-time permanent employees. It is expected that the majority of employees will be drawn from communities neighboring or adjacent to the project site. The addition of 21 employees is not expected to result in significant indirect impacts to response times.

During the operational phase, the applicant will ensure that site access is restricted and that adequate security is maintained at the project site. Entry to the Gregory Canyon Landfill during business hours will be controlled by site personnel at the entrance facility which is the single point of public access to the site. Unauthorized access to the site will be controlled by perimeter fencing where necessary, topographical constraints and lockable entrance gates at the point of public access. Visitors to the site must check-in at the administrative office. The use of site security measures will increase the level of safety and security, as well as reduce the impacts on law enforcement services. Given the nature of the proposed land use, the project will not cause a significant impact to law enforcement services.

Site Closure Impacts

No significant impacts to law enforcement services are expected to result with landfill closure. Closure activities are not expected to generate a need for police protection; therefore, no significant impacts are anticipated.

First San Diego Aqueduct Relocation Option

No significant impacts to law enforcement services are expected to result with aqueduct relocation.

4.15.6.4 Mitigation Measures

No potentially significant impacts to law enforcement have been identified; therefore, no mitigation measures are required.

4.15.6.5 Level of Significance After Mitigation

No impacts to law enforcement service were identified; therefore, no mitigation measures are necessary.

4.15.7 SCHOOL FACILITIES

4.15.7.1 Existing Setting

The Bonsall Union School District and Fallbrook Union High School District (FUHSD) are responsible for providing educational services within the project site. Bonsall Union School District is responsible for providing elementary and middle school services and FUHSD is responsible for providing high school service. Specifically, the site is located within the attendance areas of the Vivian Banks Charter School (grades K-5) and the Norman L. Sullivan Middle School (grades 6-8). Vivian Banks Charter School is located at Mission San Antonio de Pala, approximately two miles northeast of the proposed project. The Charter School has an enrollment of 150 students and is currently operating at capacity. The Norman L. Sullivan Middle School is located at 7350 West Lilac Road approximately seven miles west of the project site. Currently, the Norman L. Sullivan Middle School has a total enrollment of 470 students and is operating at capacity.

At the present time, FUHSD has a total enrollment of 2,654 students with a capacity of 2,700 total students. Both Ivy High School and Oasis High School have reached their enrollment capacity at 107 and 168 students respectively. The future enrollment projection and design capacity of each of these facilities are presented in Table 4.15-1.

**TABLE 4.15-1
EXISTING SCHOOL FACILITIES
CURRENT ENROLLMENT AND CAPACITY**

SCHOOL FACILITIES	CURRENT ENROLLMENT	DESIGN CAPACITY
Bonsall School District		
Norman L. Sullivan Middle School 7350 W. Lilac Road	470	470
Vivian Banks Charter School Mission San Antonio de Pala	150	150
Fallbrook Union High School District		
Fallbrook Union High School 2400 S. Stage Coach Road	2,379	2,704
Ivy High School 1056 Winterhaven Road	107	107
Oasis High School 237 E. Mission Road, Ste. B	168	168
<i>Source: Fallbrook Union High School District, 1998</i>		

As indicated in Table 4.15-1, all schools serving the project site are operating at capacity with the exception of Fallbrook Union High School.

4.15.7.2 Impact Significance Criteria

Although CEQA guidelines do not specifically address significance criteria to school facilities, the threshold of significance for this EIR would be any activities resulting from project implementation that create student enrollments that exceed available capacities of school facilities or educational services and would require the construction of new school facilities.

4.15.7.3 Potential Impacts

Short-Term (Construction) Impacts

Construction of the proposed project would last approximately nine to 12 months and create up to 35 temporary construction jobs. As indicated in Section 4.14, Socioeconomics, it is expected that employees will likely be drawn from communities neighboring or adjacent to the project site. Thus, no significant short-term impacts to local school facilities are anticipated.

Long-Term (Operational) Impacts

No residential uses are proposed with the project. Therefore, the project would not directly impact school enrollment. Operation of the landfill will require an estimated 21 new full-time permanent employees. The addition of 21 employees is not expected to have an impact on school facilities within the Bonsall Union School District or the FUHSD. It is expected that the majority of employees will be drawn from communities neighboring or adjacent to the project site.

Specific concerns were raised by Bonsall Union School District regarding the effects of project-related traffic along SR 76. Concerns submitted by the District indicate that the increased traffic to and from the landfill may impact the safety of transporting students along SR 76. Impacts related to safety considerations and increased traffic are addressed in Section 4.5, Traffic and Circulation. Section 4.5 demonstrates these potential impacts would not be significant.

Site Closure Impacts

No significant impacts to school facilities are expected to result with landfill closure. Closure activities are not expected to affect school facilities within the project area; therefore, no significant impacts are anticipated.

First San Diego Aqueduct Relocation Option

No significant impacts to school facilities are expected to result with aqueduct relocation.

4.15.7.4 Mitigation Measures

No significant impacts were identified to school facilities; therefore, no mitigation measures are required.

4.15.7.5 Level of Significance After Mitigation

No impacts to school facilities would result from project implementation; therefore, no mitigation measures are necessary.

4.15.8 ENERGY

The construction, operation and closure of the proposed Gregory Canyon Landfill would involve the consumption of non-renewable energy-related resources. The following section addresses the energy-related issues associated with the proposed project.

4.15.8.1 Existing Setting

Electricity in the project area is provided by San Diego Gas and Electric (SDG&E). SDG&E purchases all of its electrical power requirements from California's Power Exchange. The Power Exchange provides a mix of energy from fossil and non-fossil generation. Power is available to the project area from the Pala Road substation (Section 14.15.1). As a public utility, SDG&E is under the jurisdiction of the California Public Utilities Commission.

While SDG&E provides power and natural gas according to demand, increasing costs of energy production are related to dwindling non-renewable resources. As a public utility, SDG&E is directed to encourage energy conservation as a means of ensuring the availability of energy to serve future needs (San Diego County General Plan, 1990).

The County of San Diego General Plan Energy Element outlines the following goals regarding the wise and rational use of energy: define and assure adequate energy supplies; encourage the utilization of alternative passive and renewable energy resources; maximize energy conservation; minimize environmental impacts of energy sources; minimize economic or social impacts of energy supply and demand; minimize the possibility of energy shortages; seek equitable sharing of energy consumption and the hardships of energy shortages; and encourage compatibility with national and state energy goals.

Energy consumption of new construction in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Administrative Code. The standards regulate energy consumed for heating cooling, ventilation, water heating and lighting. The Building Efficiency Standards are enforced through the local building permit process.

4.15.8.2 Impact Significance Criteria

According to CEQA, the environment would be effected significantly if the construction, operation or closure of the proposed landfill encouraged activities which would result in the use of large amounts of fuel or energy, use gasoline, electricity or diesel fuel in a wasteful manner (Appendix G(n)(o)). Further, if the project will use non-renewable resources during the initial and continued phases of the project, then irretrievable commitments of resources should be evaluated to assure that consumption is justified (CEQA Guidelines, Section 15126(f)).

4.15.8.3 Potential Impacts

Short-Term (Construction) Impacts

Energy usage during construction would result primarily from the heavy equipment and vehicular use of non-renewable fossil fuels. Electrical consumption would be very low because the heavy-duty construction and grading equipment are fueled by gasoline or diesel fuel.

Energy use during construction of all basic facilities needed to operate the landfill, such as the access road and bridge, maintenance building, visitor center, office building, equipment and storage area, recyclable goods center, scales, fee booths and parking area would be short term; construction is estimated to take approximately nine to twelve months. The types of equipment that are likely to be used during construction of the landfill facility include, but are not limited to, bulldozers, tractors, scrapers, water trucks, miscellaneous road building equipment, including pavers, rollers, asphalt delivery trucks and construction personnel vehicles (Ogden, 1995).

Energy use associated with the phased construction and excavation of the site will be periodic throughout the service life of the landfill, requiring the recurrent operation of construction equipment. The types of equipment that are likely to be used during this periodic construction would be the same as that used during initial construction.

The amount of energy consumption associated with the initial landfill construction and the phased periodic construction would not have a significant adverse impact on the region.

Long-Term (Operational) Impacts

Energy usage during landfill operation would primarily result from the transportation of waste to the landfill site. Minimal amounts of electricity would be used for lighting, communications systems, computers, heating and cooling, small motors and security systems. 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 would be implemented as part of the operations procedures.

During facility operations, heavy-duty excavation equipment, waste transport vehicles, related service vehicles, and employee vehicles would use non-renewable fossil fuels. However, these collection vehicles already exist and would not increase in number. In fact, the implementation of the proposed Gregory Canyon Landfill would substantially reduce the number of miles traveled by the waste haul vehicles, as the proposed landfill would be located in North County, which is between 15 to 40 miles away from the jurisdictions. Due to this centralized location, North County cities would not haul waste the more than 60 miles to out-of County landfills, nor to the existing landfills that are located between 11 and 60 miles away in South County. As shown on Table 6.1b, approximately 1,077,000 vehicle miles traveled (VMT) would be saved annually by the implementation of this project. Assuming a waste haul truck can achieve about 10 miles per gallon, approximately 100,000 gallons of fuel would be saved annually. This is a substantial benefit of the project. The net result to the region and Southern California is less impact to the environment due to the decreased consumption of non-renewable resources and fewer fossil fuel by-products polluting the atmosphere. In addition, less wear will occur to the local roads, state routes and interstate highways due to the reduction of heavy-duty waste haul trucks traveling these roads.

Since such a minimal amount of electricity consumption is anticipated for the operation of the landfill facility, and the need for gasoline and diesel fuel will be greatly reduced, the impact of the proposed landfill would not be significant, and has the potential to benefit the environment through reduced energy consumption.

Site Closure Impact

Energy usage during landfill closure procedures would be short term in nature. Closure preparations would begin approximately two years prior to the end of the design life of the landfill. Energy usage during closure would result primarily in the increased use of heavy-duty construction equipment during the placement of the final cover material and completion of the final landscaping of the project area. The level of activity (e.g., number of personnel, amount of equipment, and ground moving activity) associated with closure of the facility would be less than the level of activity required for construction of the facility. The amount of energy consumption associated with the closure of the landfill would not have a significant adverse impact on the region.

Potential Energy Generation

Though the implementation of a gas-to-energy conversion station is not proposed as a part of this project, the landfill has the potential to produce a positive energy impact over time. Gas-to-energy conversion can occur after several years of facility operation. Once a sufficient volume of gas is produced and collected from the disposal area, methane gas generated by the decomposition of wastes in the disposal area could be used to generate electricity (DEA, 1998).

First San Diego Aqueduct Relocation Option

Energy consumption would increase due to the additional construction involved with the relocation of the SDCWA Aqueduct. However, the increase would be minimal and no significant impacts to energy resources are expected to result with the aqueduct relocation.

4.15.8.4 Mitigation Measures

No significant energy impacts have been identified; therefore, no mitigation measures are required.

4.15.8.5 Level of Significance After Mitigation

Energy consumption during the construction and operation of the landfill would be decreased over the existing situation due to substantially fewer miles traveled by the waste haul trucks. The total amount of energy consumption required to construct, operate and close the proposed landfill is substantially less than the energy consumption required to continue hauling waste to the existing landfills. Since no significant energy impacts will occur, no mitigation is required.