

4.15 UTILITIES AND SERVICE SYSTEMS

4.15.1 Environmental Setting

Utilities

Cable and Telephone

Several companies, including AT&T and Cox Communications, provide telephone, wireless phone, video/cable, digital subscriber line (DSL), broadband, and satellite services to the City and unincorporated areas of the County.

Electricity and Natural Gas

SDG&E provides gas and electric service to the City and the unincorporated areas of the County. SDG&E provides energy service to 3.4 million people through 1.4 million electric meters and 850,000 natural gas meters in San Diego County and southern Orange County, with a service territory spanning approximately 4,100 square miles (SDG&E 2013).

Two high-pressure gas pipelines are located within a 2.15-mile-long segment of the transmission corridor between SR-125 and the proposed substation. The high-pressure gas pipelines consist of 4-inch and 36-inch buried metal pipelines.

Water

Water within the City is provided by municipal water purveyors. The proposed project would be served by the Otay Water District. The Otay Water District serves the water, recycled water, and sewer needs of customers residing in the communities of Spring Valley, La Presa, Rancho San Diego, Jamul, eastern Chula Vista, and eastern Otay Mesa along the international border with Mexico. The Otay Water District purchases potable water from SDCWA, Helix Water District, and the City of San Diego (Otay Water District 2014; SDCWA 2013).

The Otay Water District has one of the largest recycled water distribution systems in the County. The District produces 1.1 mgd of recycled water and purchases approximately 6 mgd from the City of San Diego (Otay Water District 2013). The recycled water distribution system includes distribution along Hunte Parkway within the project area (Kennedy 2014).

Two SDCWA water pipelines are located adjacent and parallel to a 3.3-mile-long segment of the transmission corridor between SR-125 and the proposed substation. The water pipelines consist of 69-inch and a 72-inch metallic water pipelines. The water pipelines are located within the utility corridor east of the transmission corridor.

Service Systems

Stormwater

The Stormwater Management Section of the Chula Vista Department of Public Works oversees stormwater infrastructure within the City of San Diego. There is currently no stormwater infrastructure on the proposed substation site with the exception of two brow ditches that

4.15 UTILITIES AND SERVICE SYSTEMS

convey runoff water from the City of Chula Vista sewer access road. One brow ditch discharge to a stormwater outfall located directly west of the proposed substation and the second brow ditch drains to a tributary of Salt Creek southwest of the substation site. Infrastructure along the transmission line is managed by the Chula Vista Department of Public Works. Stormwater management at Miguel Substation is provided by SDG&E.

Sewer and Wastewater

The City provides sewer and wastewater treatment for the project area. City wastewater is treated at the Point Loma Wastewater Treatment Plant owned and operated by the Metropolitan Wastewater Department (City of Chula Vista 2013). The Point Loma Wastewater Treatment Plant treats approximately 175 mgd of wastewater. The plant has a treatment capacity of 240 mgd (City of San Diego 2013).

The City has a sewer access road located within the proposed substation site. The sewer access road is used by the City to access buried sewer lines located south of the proposed substation site.

Solid Waste Disposal

Garbage and recycling collection in the project area is provided by Republic Services, Inc. Republic Services, Inc., owns and operates the Otay Landfill and the Sycamore Canyon Landfill. Approximately 98 percent of the nonhazardous municipal waste collected in the City is transported to Otay Landfill, approximately 8 miles southwest of the proposed substation. Otay Landfill is a Class III landfill that accepts a maximum of 5,830 tons of direct landfill per day, Monday through Saturday (Loveland 2014). In 2010, Otay Landfill had 27 million CY of capacity and a closure date of 2027 (County of San Diego 2011).

4.15.2 Regulatory Setting

Federal

There are no federal laws or regulations pertaining to utilities that are applicable to the proposed project.

State

Assembly Bill 939

The Integrated Waste Management Act of 1989 (Cal. Pub. Res. Code § 40050 et seq.), requires all local and county governments to adopt a Source Reduction and Recycling Element in general plans to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25 percent by 1995 and 50 percent by 2000. Senate Bill 1016 (2007) built on the Integrated Waste Management Act of 1989 by implementing simplified performance measures for meeting solid waste reduction goals.

Assembly Bill 341

California's Commercial Recycling Bill (AB 341) went into effect July 1, 2012, and set a recycling goal of 75 percent diversion by 2020. The bill is intended to reduce GHG emissions by diverting

4.15 UTILITIES AND SERVICE SYSTEMS

recyclable materials and to expand the opportunity for increased economic activity and green industry job creation.

Local

City of Chula Vista policies and regulations pertaining to wastewater treatment and stormwater are listed in Section 4.9: Hydrology and Water Quality.

City of Chula Vista Municipal Code

Chapter 8.25 of the City of Chula Vista Municipal Code establishes policies and regulations pertaining to solid waste recycling. Specifically, Chapter 8.25.095 requires each applicant (including new public facilities) to submit a Construction and Demolition Waste Management Report. According to the Recycling and Solid Waste Planning Manual prepared by the City, industrial recyclables include recyclable material from industrial, construction, and demolition operations including, but not limited to asphalt, concrete, dirt, land-clearing brush, sand, and rock (City of Chula Vista 2008).

City of Chula Vista General Plan

The Chula Vista General Plan (2005) establishes goals and objectives to provide guidance in the growth of the City. The following utilities and service systems objectives were identified in the City of Chula Vista General Plan:

- ED 10.1 Provide sufficient telecommunication; water; sewer; and other infrastructure capacity to support new business development, including technology and science based industries, while continuing to support the existing business base.
- ED 10.2 Work with regional agencies to develop and implement strategies for public improvements that benefit Chula Vista and all of South County, including, but not limited to: road; transit; energy; water; wastewater; and telecommunications infrastructure improvements.
- E 3.1 Promote the use of low water demand landscaping and drought tolerant plant materials in both existing and new development.
- E 3.3 Where safe and feasible, promote and facilitate the continued use of recycled water in new developments, and explore opportunities for the use of recycled water in redevelopment projects.
- E 8.1 Promote efforts to reduce waste, minimize the need for additional landfills, and provide economically and environmentally sound resource recovery, management, and disposal facilities.

4.15.3 Applicant Proposed Measures

SDG&E proposes to implement measures that would reduce environmental impacts. The following relevant APM is considered part of the proposed project (Table 4.15-1). The significance of the impact, however, is first considered prior to application of the APM and a significance determination is made. The implementation of the APM is then considered as part

4.15 UTILITIES AND SERVICE SYSTEMS

of the project when determining whether impacts would be significant and thus would require mitigation. This APM would be incorporated as part of any CPUC approval of the project, and SDG&E would be required to adhere to the APM as well as any identified mitigation measures. The APM is included in the MMRP for the project (refer to Section 9: Mitigation Monitoring and Reporting Plan of this Draft EIR), and the implementation of the measures would be monitored and documented in the same manner as mitigation measures.

Table 4.15-1: Applicant Proposed Measures for Utilities and Service Systems Impacts

APM Number	Requirements
APM UTIL-1: Utility Notification	Prior to trenching, SDG&E will notify other utility companies to locate and mark existing underground utilities along the proposed underground alignment.

4.15.4 Significance Criteria

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) provides guidance on assessing whether a project will have significant impacts on the environment. Consistent with Appendix G, the proposed project would have significant impacts to utilities and service systems if it would:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- d. Not have sufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed.
- e. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- g. Not comply with federal, state, and local statutes and regulations related to solid waste.

Given the specific location and design of the proposed project, two additional potential impacts not listed in Appendix G are assessed in this section:

1. Cause substantial deterioration or damage to gas, water, or sewer pipelines
2. Disrupt existing utility systems or conflict with utility ROWs

4.15 UTILITIES AND SERVICE SYSTEMS

4.15.5 Environmental Impacts and Mitigation Measures

Approach to Environmental Impact Assessment

Existing utility and service systems that may be affected by construction and operation of the proposed project include cable and telephone, electricity and natural gas, water supply, stormwater management, sewer and wastewater treatment, and garbage and recycling. The proposed project was analyzed to determine if there would be a strain on any of these existing systems. Impacts are assessed based on whether the proposed project would directly or indirectly impact the effectiveness of existing utility infrastructure or cause temporary failure; affect the capacity and distribution of utility suppliers and service providers to meet the existing or anticipated demand; or require public utility system upgrades.

Alternating Currents

The project is located near existing buried utility pipelines. AC can cause corrosion on buried utility pipelines located near a power line if the current density would exceed the design standards for protection of the power line. SDG&E conducted a study to evaluate the AC electrical interference of TL 6965 with the 4-inch and 36-inch gas pipelines and the two SDCWA water pipelines along 2.15 miles of the proposed transmission corridor (ARK 2014a, 2014b). The study included modeling of the AC current densities and evaluation of the corrosion potential as a result of the project. European Standard CEN/TS 15280 provides guidelines for evaluating the likelihood of corrosion from AC density. Pipelines are considered protected from AC corrosion if the root mean square (RMS) AC density is lower than 20 amperes per square meter (A/m²) (ARK 2014a). The modeled current density on the 4-inch and 36-inch gas pipelines and SDCWA water pipelines within the utility corridor were compared to the design standards to determine whether the project would substantially increase the rate of corrosion on utilities within the transmission and utility corridor. Further details on the AC interference study are provided in Section 4.8: Hazards.

Impact Assessment

Table 4.15-2 provides a summary of the significance of potential impacts to utilities and service systems prior to application of APMs, after application of APMs and before implementation of mitigation measures, and after the implementation of mitigation measures.

Table 4.15-2 Summary of Potential Impacts to Utilities and Service Systems

Significance Criteria	Project Phase	Significance Prior to APMs	Significance After APMs and Before Mitigation	Significance After Mitigation
Impact Utilities-1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	Construction	Less than significant	Less than significant	Less than significant
	Operation and Maintenance	Less than significant	Less than significant	Less than significant

4.15 UTILITIES AND SERVICE SYSTEMS

Significance Criteria	Project Phase	Significance Prior to APMs	Significance After APMs and Before Mitigation	Significance After Mitigation
Impact Utilities-2: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	Construction	Less than significant	Less than significant	Less than significant
	Operation and Maintenance	Less than significant	Less than significant	Less than significant
Impact Utilities-3: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	Construction	Less than significant	Less than significant	Less than significant
	Operation and Maintenance	No impact	No impact	No impact
Impact Utilities-4: Not have sufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed	Construction	Less than significant	Less than significant	Less than significant
	Operation and Maintenance	Less than significant	Less than significant	Less than significant
Impact Utilities-5: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments	Construction	Less than significant	Less than significant	Less than significant
	Operation and Maintenance	Less than significant	Less than significant	Less than significant
Impact Utilities-6: Service by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs	Construction	Less than significant	Less than significant	Less than significant
	Operation and Maintenance	Less than significant	Less than significant	Less than significant
Impact Utilities-7: Not comply with federal, state, and local statutes and regulations related to solid waste	Construction	Significant	Significant	Less than significant MM GHG-1
	Operation and Maintenance	No impact	No impact	No impact
Impact Utilities-8: Cause substantial deterioration or damage to gas, water, or sewer pipelines	Construction	Significant	Significant APM UTIL-1	Less than significant MM Utilities-1, MM Hazards-1
	Operation and Maintenance	Less than significant	Less than significant	Less than significant

4.15 UTILITIES AND SERVICE SYSTEMS

Significance Criteria	Project Phase	Significance Prior to APMs	Significance After APMs and Before Mitigation	Significance After Mitigation
Impact Utilities-9: Disrupt existing utility systems or conflict with utility ROWs	Construction	Significant	Significant	Less than significant MM Utilities-2, MM Utilities-3
	Operation and Maintenance	Less than significant	Less than significant	Less than significant

Impact Utilities-1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (*Less than significant; no mitigation required*)

Construction

Project construction would generate a minimal amount of wastewater. Sanitary facilities would be used by project construction workers, estimated at 91 workers per day for up to 24 months. These workers would be located at multiple sites over the 5-mile-long project area. A licensed sanitation contractor would maintain portable restrooms. The restrooms would be used in accordance with applicable OSHA sanitation regulations, which generally require one portable toilet for every ten workers. The licensed contractor would dispose of waste at an off-site location, in compliance with standards established by SDRWQCB. The addition of the project's minimal amount of wastewater to the existing wastewater treatment plant would not cause a wastewater treatment facility to exceed wastewater treatment requirements of SDRWQCB. Project construction would have a less-than-significant impact on wastewater treatment requirements. No mitigation is required.

Operation and Maintenance

Long-term operation and maintenance of the proposed substation and TL 6965 would generate minimal wastewater. The substation would be unattended and no permanent sanitary facilities would be constructed on site. Portable toilets would be provided at the substation for employees doing periodic maintenance. A licensed contractor would dispose of waste at an off-site facility, in compliance with standards established by SDRWQCB. No permanent sanitary facilities or portable toilets would be needed for operation and maintenance of TL 6965. The wastewater generated during operation and maintenance of the project would not exceed wastewater treatment requirements of SDRWQCB, and impacts would therefore be less than significant. No mitigation is required.

Mitigation Measures: None required.

4.15 UTILITIES AND SERVICE SYSTEMS

Impact Utilities-2: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (*Less than significant; no mitigation required*)

Construction

Water use for the project would not require construction of new water treatment facilities due to the limited amount of water required during project construction. Water would be used regularly to control dust on access roads and in work areas, as required by APM AIR-1, APM HYDRO-1 (SWPPP), and SDAPCD. Water would also be used for compaction of soils during grading. For substation site grading and site development construction use, water would be purchased from the Otay Water District and would be purveyed using existing fire hydrants on Hunte Parkway. Approximately 100.5 acre-feet of reclaimed or potable water would be used to control dust and compact soils during the 2-year construction period. The project would not require construction of new water treatment facilities because the small amount of water required for construction would not exceed the capacity of the water supplier. Impacts of project water use would be less than significant, and no mitigation is required.

The project would not require construction of new wastewater treatment facilities. The existing treatment plant has adequate capacity to accept the minimal wastewater resulting from the temporary portable toilets to be used at the project work sites. The small amount of wastewater generated by the portable toilets for the 91 workers per day for up to 24 months would be transported off site and disposed of at a sewage treatment plant. This amount of wastewater would not require construction of new wastewater facilities. Impacts would be less than significant, and no mitigation is required.

Operation and Maintenance

Water use during operation and maintenance would be limited to irrigation of any on-site landscaping (i.e., revegetated groundcover or landscape screening) and fire protection. The amount of water required for operation and maintenance activities would be minimal and would not require the construction of new or expansion of existing water facilities. Impacts would be less than significant, and no mitigation is required.

Operation and maintenance activities for the proposed substation would generate minimal wastewater through the occasional use of portable toilets that would be provided for employees doing periodic maintenance. Waste would be disposed of at an off-site sewage treatment facility. Impacts would be less than significant, and no mitigation is required.

Mitigation Measures: None required.

4.15 UTILITIES AND SERVICE SYSTEMS

Impact Utilities-3: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (*Less than significant; no mitigation required*)

Construction

Proposed Substation

Construction of the proposed substation would result in approximately 172,500 square feet (3.96 acres) of impervious surface within the substation site through replacement of natural landscape with gravel and paved surfaces. New stormwater drainage facilities are proposed as a part of the project to accommodate stormwater flows at the substation site. A stormwater detention basin would be constructed within the substation pad to reduce the post-construction stormwater runoff to pre-project conditions. A storm drain from the detention basin would discharge to the existing 96-inch-diameter storm drain dissipater southwest of the substation site. Stormwater from the hillslope south of the substation pad would collect on a 10-foot-wide bench and drain to a proposed storm drain outfall at the southern border of SDG&E's property. The storm drain outfall would discharge to a drainage easement. Water would flow toward the ephemeral wash west and south of the substation site. Construction of the new stormwater facilities would not result in significant environmental impacts and would serve to reduce post-construction stormwater flows to preconstruction levels. BMPs would be used during project construction to minimize stormwater flow impacts per the project-specific SWPPP (APM HYDRO-1). The impact of the stormwater facilities at the proposed substation would be less than significant. No mitigation is required.

TL 6965

Construction of TL 6965 would require 2.2 acres of grading for permanent work pads and modified access roads. Concrete foundations would be installed at ten poles with a total impact of less than 0.1 acres. The additional compacted areas and impervious surfaces would be distributed across 5 miles of the transmission corridor and would not substantially change the runoff in any area. No additional stormwater facilities or expansion of existing stormwater facilities would be necessary for TL 6965 construction, and there would be no impact related to construction of new stormwater facilities.

Miguel Substation Modifications and Staging Yards

Modifications at Miguel Substation and use of the laydown areas and staging yards would not require drainage facilities. There would be no impact at these locations.

Operation and Maintenance

Operation and maintenance activities would not require the construction of new stormwater facilities. No impact would occur.

Mitigation Measures: None required.

4.15 UTILITIES AND SERVICE SYSTEMS

Impact Utilities-4: Not have sufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed (*Less than significant; no mitigation required*)

Construction

It is anticipated that water would be the primary means for dust control and compaction during construction. Water would be transported to the site in trucks equipped for dispersing water onto disturbed areas where grading or routine movement of construction vehicles occurs. Water would be used to wet disturbed soils and reduce the potential for dust particles to enter the air. A maximum of 60,000 gallons of water per day would be required for these activities.

The Otay Water District has sufficient water entitlements to supply the demand of the City and meet water demands of approximately 100.5 acre-feet for construction of the proposed project (Kennedy 2014). The demand for water would be temporary and would only be required during the 18- to 24-month construction phase. Impacts would be less than significant.

Operation and Maintenance

Water use would be limited to irrigation of any on-site landscaping (i.e., revegetative groundcover or landscape screening). Water would be obtained from municipal suppliers and would likely be from a recycled water source. The amount of water required for maintenance would be about 1.2 acre-feet per year for the first five years of operation and about 0.84 acre-foot per year for the remaining life of the substation. The Otay Water District has the capacity to supply the amount of water required for maintenance through existing entitlements (Kennedy 2014). Impacts would be less than significant, and no mitigation is required.

Mitigation Measures: None required.

Impact Utilities-5: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments (*Less than significant; no mitigation required*)

Minimal amounts of wastewater would be generated during construction, operation, and maintenance of the project. Wastewater generated would be limited to the waste from portable restroom facilities, which would be transported to the nearest wastewater treatment plant. The City has adequate capacity to serve the additional wastewater generated by the project in addition to existing commitments. The impact would be less than significant, and no mitigation is required.

Mitigation Measures: None required.

Impact Utilities-6: Service by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs (*Less than significant; no mitigation required*)

Construction

Project construction is expected to generate waste materials such as packaging (e.g., wooden skids, cardboard boxes, plastic wrapping, and trash from consumables), empty conductor

4.15 UTILITIES AND SERVICE SYSTEMS

spools, and excess conductor. All recyclable construction materials that are nonhazardous would be transported to a nonhazardous recycling facility or retained by SDG&E for use on other projects. All solid waste generated would be collected at designated locations within the proposed substation site, along the transmission corridor, and within staging yards. All nonhazardous waste would ultimately be transported to the Otay Landfill for proper disposal or to a greenwaste facility, as required by Mitigation Measure GHG-1. The Otay Landfill has sufficient capacity to accommodate the small amount of waste that would be generated during construction. Impacts would be less than significant, and no mitigation is required.

Operation and Maintenance

Project operation and maintenance would generate a limited amount of solid waste. The only waste generated would be associated with operational equipment maintenance, crew lunches, and packaging material associated with replacement parts. Excess material or waste from repairing or replacing structures or equipment (e.g., replacement of an insulator) would be transported to an existing SDG&E maintenance yard for reuse, recycling, or disposal in accordance with federal, state, and local statutes and regulations. Any remaining waste would be minimal and would be properly disposed of at an approved landfill with permitted capacity. Impacts would be less than significant, and no mitigation is required.

Mitigation Measures: None required.

Impact Utilities-7: Not comply with federal, state, and local statutes and regulations related to solid waste (*Less than significant with mitigation*)

Construction

SDG&E proposes to transport solid and hazardous waste to a licensed landfill approved for receiving the waste. Disposal of solid waste in a permitted landfill would comply with federal, state, and local statutes and regulations related to solid waste. There would be no impact relative to the regulations and statutes.

The CARB Scoping Plan requires elimination of disposal of organic waste at landfills in 2016. Project construction would involve vegetation clearing; the disposal of vegetation in a landfill would conflict with the CARB Scoping Plan and result in a significant impact. Mitigation Measure GHG-1 requires disposal of organic waste in an approved greenwaste recycling program or composting on SDG&E land. Implementation of Mitigation Measure GHG-1 would not conflict with any federal, state, or local statutes and regulations. Impacts would be less than significant with mitigation.

Operation and Maintenance

The substation would be operated remotely. Operation and maintenance would produce limited quantities of solid and hazardous wastes as described in Impact Utilities-6. All wastes would be disposed of in accordance with federal, state, and local statutes and regulations. There would be no impact.

Mitigation Measures: None required.

4.15 UTILITIES AND SERVICE SYSTEMS

Impact Utilities-8: Cause substantial deterioration or damage to gas, water, or sewer pipelines (Less than significant with mitigation)

Construction

Subsurface utility lines and fuel pipelines are located within the transmission corridor. Ground-disturbing activities including grading, trenching, and augering of foundation holes could cause damage or rupture to utility lines or pipelines if below-grade construction was conducted in the location of underground utilities, resulting in a significant impact. APM UTIL-1 requires SDG&E to contact utilities prior to trenching. APM UTIL-1 does not require investigation of underground utilities prior to augering or other below-grade construction. The 36-inch gas pipeline is located as close as 3.5 feet from the edge of the foundation of proposed new poles within the transmission corridor. Below-grade activities could cause damage to or rupture buried utilities and cause a significant impact, even with the implementation of APM UTIL-1. Mitigation Measure Utilities-1 requires SDG&E to notify the appropriate utility companies of construction activities at least 30 days prior to construction. It also requires project work area to be adjusted to avoid buried pipelines, if necessary.

The proximity of the 36-inch gas pipeline presents a risk of damage to the pipeline if the gas pipeline company does not mark the pipeline location accurately. Mitigation Measure Hazards-1 requires SDG&E to uncover the pipeline in proximity to proposed TSP foundations to ensure that no foundation excavation work damages the pipeline. Mitigation Measures Utilities-1 and Hazards-1 would reduce impacts associated with damage or rupture to buried utilities. Impacts would be less than significant with mitigation.

Operation and Maintenance

TL 6965 would conduct 69-kV power between Miguel Substation and the proposed substation during project operation. There is the potential for induced current (refer to Section 4.8: Hazards and Hazardous Materials for definitions) between TL 6965 and the existing 4-inch and 36-inch gas pipelines and the two SDCWA water pipelines located within the adjacent utility corridor. The gas pipelines and water pipelines are located in proximity to the proposed power line between the proposed substation and SR-125. Induced current can cause corrosion on buried pipelines as a result of AC electrical current leaving the metal pipeline surface. A significant impact would occur if current densities would exceed the threshold of 20 A/m² as a result of the proposed project. The modeled current densities for the pipelines within the corridor without and with the proposed AC design features included in the proposed project are presented in Table 4.15-3.

The proposed project design features would lower the peak AC current density to below the design limit, thereby avoiding the potential for pipeline corrosion effects. Impacts would be less than significant and no mitigation is required.

4.15 UTILITIES AND SERVICE SYSTEMS

Table 4.15-3 Modeled AC Current Densities on Buried Pipelines

Pipeline	Maximum Current Density with No Design Features (A/m ²)	Maximum Current Density with Design Features (A/m ²)	Design Limit (A/m ²)
36-inch gas pipeline	>100	15	20
4-inch gas pipeline	59	15	20
69-inch water pipeline	9	–	20
72-inch water pipeline	2	–	20

Note:

No design features are proposed for the water pipelines because the AC current densities are below standards.

Mitigation Measures: Utilities-1 and Hazards-1

Mitigation Measure Utilities-1: SDG&E shall notify all appropriate utility companies to locate and mark existing underground utilities along the entire length of the alignment at least 30 days prior to construction. No subsurface work shall be conducted that would conflict with a buried utility. In the event of a conflict, the project will be realigned vertically and/or horizontally as appropriate to avoid utilities and provide adequate operational and safety buffering.

Significance after Mitigation: Less than significant.

Impact Utilities-9: Disrupt existing utility systems or conflict with utility ROWs (Less than significant with mitigation)

Construction

The distribution trenching near the proposed substation could involve activities that would temporarily disrupt telephone or cable service. The proposed power line work areas include foundation borings that are located close to buried gas pipelines. A temporary shut-off of the gas pipelines may be necessary depending on the location of the foundation drilling relative to the gas pipelines. While service disruptions would be short-term and temporary during construction, these disruptions could impact nearby businesses and residences and hinder activities in the surrounding area. These impacts are considered potentially significant. Implementation of Mitigation Measure Utilities-2 requires public notification of any service disruptions and would reduce impacts associated with utility disruption. Impacts would be less than significant with mitigation.

Construction equipment and vehicles would use local roads owned by SDCWA and the City of Chula Vista to access portions of the transmission corridor and proposed substation. Use of access roads by SDG&E could temporarily impede or prevent access by SDCWA during construction in the transmission corridor and the City of Chula Vista for the duration of construction at the substation, which would significantly conflict with existing utility ROW.

4.15 UTILITIES AND SERVICE SYSTEMS

Mitigation Measure Utilities-3 requires SDG&E to obtain easements and maintain City access to the buried sewer pipelines to reduce conflicts. The impact would be less than significant with mitigation.

Operation and Maintenance

Operation and maintenance of the proposed project would result in negligible impacts to utilities and utility ROWs. Routine inspections and maintenance consist of two vehicles traveling to the substation site seven times per year and inspection of the power line by helicopter concurrent with inspection of other transmission lines in the corridor. Maintenance would happen periodically as needed. The substation would be operated remotely, and operation would not conflict with utilities. Access roads owned by SDCWA and the City would not be impeded with the minimal amount of traffic to the power line and substation. Impacts would be less than significant. No mitigation would be required.

Mitigation Measures: Utilities-2 and Utilities-3

Mitigation Measure Utilities-2: Prior to construction in which a utility service interruption is known to be unavoidable, SDG&E shall notify members of the public affected by the planned outage at least 30 days prior to the impending interruption. Copies of the notices and dates shall be provided to the CPUC at the time the notices are distributed to the public. In the event of an unforeseen utility service disruption, SDG&E shall immediately notify the CPUC and affected utility company/companies to determine appropriate actions.

Mitigation Measure Utilities-3: SDG&E shall acquire easements for access roads owned by SDCWA and the City of Chula Vista prior to use of these roads. SDG&E shall construct a secondary access road to the City of Chula Vista sewer access road and maintain City of Chula Vista access to buried sewer lines throughout the duration of construction.

Significance after Mitigation: Less than significant.

4.15.6 Project Alternatives

The public services and utilities impacts resulting from the project alternatives and no project alternative are summarized in Table 4.15-4.

Table 4.15-4 Summary of Impacts from Alternatives by Significance Criteria

Significance Criteria	No Project Alternative	Alternative 1	Alternative 2	Alternative 3
Impact Utilities-1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	Less than significant	Less than significant	Less than significant	Less than significant

4.15 UTILITIES AND SERVICE SYSTEMS

Significance Criteria	No Project Alternative	Alternative 1	Alternative 2	Alternative 3
Impact Utilities-2: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	No impact	No impact	No impact	No impact
Impact Utilities-3: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	No impact	Less than significant	Less than significant	Less than significant APM HYDRO-1
Impact Utilities-4: Not have sufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed	Less than significant	Less than significant	Less than significant	Less than significant
Impact Utilities-5: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments	Less than significant	Less than significant	Less than significant	Less than significant
Impact Utilities-6: Service by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs	Less than significant	Less than significant	Less than significant	Less than significant
Impact Utilities-7: Not comply with federal, state, and local statutes and regulations related to solid waste	No impact	Less than significant with mitigation MM GHG-1	Less than significant with mitigation MM GHG-1	Less than significant with mitigation MM GHG-1
Impact Utilities-8: Cause substantial deterioration or damage to gas, water, or sewer pipelines	Less than significant	No impact	No impact	Less than significant with mitigation APM UTIL-1 MM Hazards-1, MM Utilities-1
Impact Utilities-9: Disrupt existing utility systems or conflict with utility ROWs	Significant and unavoidable	Less than significant with mitigation MM Utilities-2, MM Utilities-3	Less than significant with mitigation MM Utilities-2, MM Utilities-3	Less than significant with mitigation MM Utilities-2, MM Utilities-3

4.15 UTILITIES AND SERVICE SYSTEMS

Alternative 1: 230/12-kV Substation and 230-kV Loop-in

Environmental Setting

Alternative 1 would involve construction of a 230/12-kV substation within the SDG&E fee-owned parcel south of Hunte Parkway. The utilities and service systems for the proposed project described in Section 4.15.1 would apply to this alternative. Alternative 1 does not involve construction of a new power line, and the utilities in the transmission and utility corridors are not part of the Alternative 1 environmental setting.

Impacts and Mitigation Measures

Impacts on utilities and service systems from construction of Alternative 1 are expected to be similar to the proposed project because the 230/12-kV substation would be located in the same area and construction activities would be similar. Like the proposed project, Alternative 1 would generate a minimal amount of wastewater from portable restrooms. Construction of the substation for up to 30 months would result in roughly the same number of portable restrooms as the proposed project. The total volume of wastewater would be approximately 25 percent more than the proposed project because of the 25 percent increase in the construction duration. A licensed contractor would dispose of waste at an off-site facility in compliance with standards established by SDRWQCB. The potential to exceed wastewater treatment requirements of the applicable SDRWQCB would be less than significant. Impacts to wastewater facilities would be less than significant, and no mitigation is required.

Alternative 1 would demand a similar amount of water for dust control and irrigation as the proposed project. Ground-disturbance would be limited to the substation parcel, reducing the areas requiring watering for dust control; however, construction would occur over 24 to 30 months, approximately 6 to 12 months longer than the proposed project. Water for dust control would therefore be required for a longer period of time, though about the same amount would be needed over the construction period because the area of construction watering would be reduced since no construction watering would be required within the transmission corridor. Impacts to water supplies would be less than significant.

The larger 230/12-kV substation would result in the addition of 5.1 acres (4.3-acre substation pad and 0.8 acres of access roads) of impervious surface within the substation site. The stormwater drainage facilities and detention basin for Alternative 1 would be similar for the proposed project and Alternative 1 and would serve to reduce post-construction stormwater flows to preconstruction levels. Impacts to stormwater drainage facilities would be less than significant.

Alternative 1 would generate slightly more solid waste than the proposed project because construction of Alternative 1 would last up to 12 months longer than the proposed project. Impacts to landfills would be less than significant. Solid and hazardous waste disposal would comply with federal, state, and local statutes and regulation related to solid waste; however the disposal of vegetation could conflict with the CARB Scoping Plan resulting in a significant impact. Mitigation Measure GHG-1 would require composting of organic materials and would reduce impacts. Impacts would be less than significant with mitigation.

4.15 UTILITIES AND SERVICE SYSTEMS

Construction at the substation and distribution line construction could temporarily interrupt utility service or disrupt access to the City of Chula Vista sewer pipeline access road, causing a significant impact to utility services. Mitigation Measures Utilities-2 and Utilities-3 require SDG&E to notify the public of temporary service disruptions and construct a secondary access road for the City, respectively. These mitigation measures would reduce impacts to utility ROWs and maintain access to sewer pipelines south of the substation site. Impacts from service disruptions and impacts to utility ROW would be less than significant with mitigation.

Operation and maintenance of Alternative 1 would result in similar impacts as the proposed project. Portable toilets used at the substation during maintenance activities would produce a minimal amount of wastewater, and a licensed contractor would dispose of waste at an off-site facility in compliance with standards established by SDRWQCB. No new wastewater facilities would be required. Like the proposed project, water use for irrigation and fire protection would be minimal. Project operation and maintenance would generate a limited amount of solid waste from crew lunches, replaced parts, and packaging materials associated with replacement parts. All waste that would not be reused or recycled would be properly disposed of at an approved landfill. Routine inspections of the substation would occur in the same manner as the proposed project; thus, conflicts with SDCWA and City ROWs would be negligible. Impacts would be less than significant.

Unlike the proposed project, Alternative 1 would have no potential to damage pipelines because construction, operation, and maintenance activities would not occur where pipelines are located and a power line would not be constructed parallel to buried metal pipelines. Impacts to utilities and service systems would be slightly less than the proposed project and less than significant with Mitigation Measures Utilities-2, Utilities-3, and GHG-1.

Alternative 2: 69/12-kV Substation and Generation at Border and Larkspur Electric Generating Facilities

Environmental Setting

This alternative would involve construction of a substation, distribution lines, and TL 6910 loop-in in the same manner as the proposed project. The utilities and service systems for the proposed project described in Section 4.15.1 would apply to this alternative. Alternative 2 does not involve construction of a new power line. The utilities in the transmission and utility corridors therefore are not part of the Alternative 2 environmental setting.

Impacts and Mitigation Measures

Construction of the substation under Alternative 2 would result in the same impacts to utilities and service systems as construction of the substation under the proposed project because the 69/12-kV substation would be constructed in the same manner and location as the proposed substation, distribution lines, and TL 6910 loop-in. Similar to the proposed project, Alternative 2 would have a less than significant impact on water treatment facilities, wastewater treatment facilities, water supplies, storm drain facilities, and landfills. The construction of the substation and associated infrastructure could temporarily interrupt utility service or disrupt access to the City sewer pipeline access road, causing a significant impact. The disposal of vegetation at a

4.15 UTILITIES AND SERVICE SYSTEMS

landfill could also conflict with the CARB Scoping Plan resulting in a significant impact. Mitigation Measures Utilities-2, Utilities-3, and GHG-1 require notification of the public prior to service disruption, maintenance of City access to the sewer lines, and disposal of organic debris in a greenwaste program or composting on SDG&E land, respectively. Impacts from Alternative 2 would be less than significant with mitigation.

Impacts from operation and maintenance under Alternative 2 would be similar to impacts of the proposed project because the same maintenance activities would occur at the substation. Impacts would be less than significant.

Power generation at Border and Larkspur electric generating facilities would not result in impacts to utilities and service systems because the electric generating facilities currently exist and currently provide power to SDG&E under existing conditions. There would be no impacts on utilities and service systems from use of these resources.

Alternative 2 would avoid conflicts with utilities in the transmission corridor and would avoid potential damage to utilities from locating a new power line parallel to buried metal utility lines because Alternative 2 would not require construction of a new power line. Impacts on utility and service systems would therefore be less than the proposed project.

Alternative 3: 69/12-kV Substation and Underground 69-kV Power Line within Public ROW

Environmental Setting

The utilities and service systems described for the proposed project in Section 4.15.1 would apply to Alternative 3. Alternative 3 also involves construction of an underground power line within Hunte Parkway, Proctor Valley Road, and Mountain Miguel Road. Construction of the Alternative 3 underground route is not anticipated to conflict with any utilities in the roadways (SDG&E 2015). The utilities in the transmission and utility corridors do not apply to the Alternative 3 environmental setting.

Impacts and Mitigation Measures

Alternative 3 could result in new impacts to buried utilities within public roadways but would avoid impacts to utilities located in the transmission corridor.

69/12-kV Substation. Construction of the substation under Alternative 3 would result in the same impacts to utilities and service systems as construction of the substation under the proposed project because the 69/12-kV substation would be constructed in the same location and manner as the proposed substation, distribution lines, and TL 6910 loop-in. Impacts from substation, distribution line, and TL 6910 loop-in construction would be the same as the proposed project including impacts for potential disruption of service, impacts to City access to the sewer access road, and disposal of vegetation debris at a landfill. Mitigation Measures Utilities-2, Utilities-3, and GHG-1 would reduce impacts through notification of service disruptions, maintaining City access to the sewer access road, and disposal of organic material in a greenwaste program or composting on SDG&E land. Impacts would be less than significant with mitigation.

4.15 UTILITIES AND SERVICE SYSTEMS

Similarly, impacts from operation and maintenance under Alternative 3 would be the same as the proposed project because the same maintenance activities would occur at the substation. Impacts would be less than significant, and no mitigation is required.

69-kV Underground Power Line. Construction activities under Alternative 3 would result in similar impacts on utilities and service systems as the proposed project. Alternative 3 would require a similar workforce and generate a similar amount of wastewater as the proposed project. This would necessitate roughly the same number of portable restrooms to meet OSHA standards. Thus, construction activities would generate roughly the same amount of wastewater, and no new wastewater facilities would need to be built for construction. Impacts on wastewater facilities would be less than significant, and no mitigation is required.

The Alternative 3 underground power line would be approximately 1 mile longer than the proposed project power line and would proportionally require more water and generate more waste than the proposed project. Water and waste would not exceed the capacity of local facilities because the small increase in water required for dust control and waste generated from construction of the underground trench would be within the capacity of the Otay Water District and the landfill. The underground power line would be installed under an existing impervious surface, and construction would not create additional impervious surface. No new stormwater drainage facilities are proposed as a part of the underground power line to accommodate stormwater flows. Trenching and installation of the power line could impede stormwater flow along curbsides throughout the duration of construction, resulting in a significant impact. Per APM HYDRO-1, BMPs would be used during project construction to minimize impacts to stormwater flows. Implementation of APM HYDRO-1 would reduce impacts to stormwater drainage facilities to less than significant, and no mitigation would be required.

Construction of the Alternative 3 underground route is not anticipated to conflict with any gas, water, or sewer pipelines within the roadways because construction activities would avoid any existing utilities. However, construction could cause potential damage to existing buried utilities during underground construction or could cause a service disruption if a pipeline is encountered, which would be a significant impact. APM UTIL-1 requires SDG&E to contact utilities prior to trenching; however, a risk of damaging or rupturing other buried utilities would remain. Mitigation Measure Utilities-1 would prohibit SDG&E from conducting work that would conflict with a buried utility and would require SDG&E to re-align the power line to avoid other utilities and provide adequate operational and safety buffering. Mitigation Measure Hazards-1 requires SDG&E to uncover the pipeline in proximity to proposed pole foundations to ensure that no foundation excavation work damages the pipeline. Mitigation Measure Utilities-2 would require SDG&E to notify the public, CPUC, and appropriate utility companies of any planned service interruptions. Mitigation Measure Utilities-3 would require SDG&E to construct a secondary access road for the City, which would reduce impacts to utility ROWs and maintain access to sewer pipelines south of the substation site. Implementation of Mitigation Measures Utilities-1, Utilities-2, Utilities-3, and Hazards-1 would reduce impacts to less than significant levels. Impacts would be less than significant with mitigation.

4.15 UTILITIES AND SERVICE SYSTEMS

Operation and maintenance of Alternative 3 would result in similar impacts as the proposed project. Portable toilets used along the underground power line during maintenance activities would produce a minimal amount of wastewater, and a licensed contractor would dispose of waste at an off-site facility in compliance with standards established by SDRWQCB. No new wastewater facilities would be required for operation and maintenance. Existing stormwater drainage facilities would operate in the same manner as prior to construction, and construction of new facilities would not be necessary. Operation and maintenance would generate a limited amount of solid waste from crew lunches, replaced parts, and packaging materials associated with replacement parts. All waste that would not be reused or recycled would be properly disposed of at an approved landfill.

Alternative 2 would avoid conflicts with utilities in the transmission corridor and would avoid potential damage to utilities from locating a new overhead power line parallel to buried metal utility lines because the Alternative 3 power line would be located underground. Impacts on utility and service systems would be slightly less than the proposed project.

No Project Alternative

Under the No Project Alternative, SDG&E would meet energy needs of the southeast Chula Vista area by installing two additional transformer banks at the Proctor Valley Substation and additional distribution circuits in the Otay Ranch area. None of the facilities associated with the proposed project or alternatives evaluated in this Draft EIR would be constructed. Therefore, none of the impacts on utilities and service systems described in this section would occur.

The two transformer banks at Proctor Valley Substation are currently approved and would be constructed even if the proposed project were constructed. Construction of the transformer banks at Proctor Valley Substation was previously considered, and there would be no additional impacts from this construction under the No Project Alternative.

Distribution circuits would likely be installed underground along various routes in the Otay Ranch area. Wastewater would be generated from sanitation facilities during construction and maintenance of the distribution circuits, and water would be required for dust control during construction. Installation and maintenance of the distribution circuits would generate solid wastes such as packaging and replaced parts. Impacts to utility pipelines (e.g., gas, water, and sewer lines) and service disruptions may occur if pipelines are located along the same alignments as the distribution circuits.

The No Project Alternative would result in brownouts or blackouts because the No Project Alternative would not meet the reliability objectives of the proposed project. The reduced reliability of electrical service would over time result in significant and unavoidable impacts to utilities and service systems.