

# D.10 Public Services and Utilities

This section addresses the environmental setting and impacts to public services and utilities likely to result from the Proposed Project or alternatives. This analysis focuses on the capacities and capabilities of existing public services and utilities and examines how the Proposed Project or alternatives would affect these systems.

## D.10.1 Environmental Setting for the Proposed Project

This public service and utility system analysis examines the utility and service provisions for the Proposed Project, including the offloading area and transportation route. Because government agencies have recently categorized data pertaining to utility systems (including their location, capacity, and type) as sensitive, public access to this data has become restricted for security reasons. As such, only information that is publicly accessible is presented in this section. However, this level of detail is adequate to determine likely impacts of the Proposed Project.

The area of the Proposed Project is served by public service and utility systems in San Diego County, MCBCP, and the SONGS site. MCBCP has a mutual aid agreement with these jurisdictions to respond to fire and medical emergencies. SONGS does not have a mutual aid agreement with these jurisdictions, but does have a mutual aid agreement with MCBCP.

Although a variety of local purveyors provide and maintain utility and service system facilities associated with electricity, water, stormwater and wastewater, solid waste, and natural gas along portions of the Proposed Project’s transportation route, utilities and services at MCBCP and within the SONGS OCA are largely provided and maintained by departments within those respective areas. The transportation route is anticipated to cross or run adjacent to pipeline easements for portions of the route. Underground Service Alert (also known as USA or “Dig Alert”), a non-profit organization supported by utility firms, provides specific information on the location of underground utilities to contractors prior to construction (for security reasons, exact locations cannot be published in a publicly accessible document). Table D.10-1 summarizes the public services and utilities providers serving the Proposed Project area.

**Table D.10-1. Utility and Service Providers by Jurisdiction**

Jurisdiction	Utility or Service System Provider
San Diego County	<p><b>Natural Gas &amp; Electricity</b> – SDG&amp;E</p> <p><b>Water</b> – San Diego County Water Authority</p> <p><b>Wastewater</b> – County of San Diego Department of Public Works Wastewater Management Section</p> <p><b>Fire Protection</b> – San Diego Rural Fire Protection District, California Department of Forestry and Fire Protection</p> <p><b>Police Protection</b> – San Diego County Sheriff’s Department</p> <p><b>Telecommunications</b> – Pacific Bell</p> <p><b>Hospitals</b> – Camp Pendleton Naval Hospital, Bayview Hospital and Mental Health System, Scripps Memorial Hospital-Chula Vista, Sharp Chula Vista Medical Center, Sharp Coronado Hospital, Kaiser Foundation Hospital, Scripps Memorial Hospital–Encinitas, Palomar Medical Center, Fallbrook Hospital District, Scripps Memorial Hospital–La Jolla, Grossmont Hospital, Paradise Valley Hospital, Tri-City Medical Center, Pomerado Hospital, Alvarado Hospital Medical Center, Charter Behavioral Health System of San Diego, Children’s Hospital and Health Center, Kaiser Foundation Hospital, Naval Medical Center, San Diego County Psychiatric Hospital, San Diego Hospice, Sharp Hospital–San Diego, Sharp Cabrillo Hospital, Sharp Memorial Hospital, University of California San Diego Medical Center, Kindred Hospital–San Diego, Veterans Affairs Medical Center, University Community Medical Center</p>

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**Table D.10-1. Utility and Service Providers by Jurisdiction**

<b>Jurisdiction</b>	<b>Utility or Service System Provider</b>
San Diego County (cont.)	<b>Solid Waste</b> – Coast Waste Management, Inc., Daily Disposal, Debris Box, Dependable Disposal (Burns & Sons), Dick's Disposal Service, EDCO Disposal Corp., EDCO Waste & Recycling (Mashburn), Emerald Waste and Recovery Inc., Express Waste, Fallbrook Refuse Service, Pacific Waste Service, Ramona Disposal–Jemco, CR&R, Valley Environmental Suburban Sanitation–Republic, Tayman Industries, Inc., Ware Disposal, Waste Management of North County, Waste Management El Cajon Hauling, USA
MCBCP	<b>Natural Gas &amp; Electricity</b> – Southern California Gas, SDG&E, MCBCP Facilities Maintenance Utilities Department <b>Water</b> – MCBCP Facilities Maintenance Utilities Department, San Diego County Water Authority <b>Wastewater</b> – MCBCP Public Works Department <b>Fire Protection</b> – MCBCP Fire and Emergency Services <b>Police Protection</b> – MCBCP Security Battalion <b>Telecommunications</b> – AT&T/SBC <b>Hospitals</b> – Naval Hospital Camp Pendleton, Branch Medical Clinics on Base <b>Solid Waste</b> – MCBCP Facilities Maintenance Utilities Department
SONGS	<b>Natural Gas &amp; Electricity</b> – Southern California Gas, SDG&E <b>Wastewater</b> – SONGS Sewage Treatment Plant <b>Fire Protection</b> – SONGS Fire Department <b>Police Protection</b> – Federal Bureau of Investigation (FBI), U.S. Marine Corps, U.S. Border Patrol, U.S. Coast Guard, California State Park Rangers <b>Telecommunications</b> – AT&T/SBC <b>Hospitals</b> – SONGS Fire Department <b>Solid Waste</b> - CR&R

Source: Allman & Company, 2003; MCBCP, 2001; MCBCP, 2004; SCE, 2004; SDCSD, 2003; Studner, 2003.

SCE currently uses approximately 65 acre-feet of potable water per month for normal plant operations at SONGS, approximately 50 percent of its allotment from the Metropolitan Water District (SCE, 2004). It is not anticipated that water for Proposed Project activities would be utilized from MCBCP or San Diego County water supplies. Water purveyors for each jurisdiction are provided above in Table D.10-1.

Sewer services, stormwater, and wastewater conveyance facilities are supplied by each jurisdiction as listed above in Table D.10-1. Additionally, each jurisdiction provides waste management services through regional landfills and permitted treatment and disposal facilities for non-radioactive wastes. Table D.10-2 lists the total and remaining capacities of solid waste facilities that serve the region. Radioactive waste from the Proposed Project or alternatives is expected to be disposed of at Envirocare of Utah. Disposal of radioactive material is further addressed and analyzed in Section D.12.

**Table D.10-2. Solid Waste Capacity**

<b>Facility Name</b>	<b>Total Capacity (cubic yards)</b>	<b>Remaining Capacity (cubic yards)</b>	<b>Remaining Capacity</b>	<b>Maximum Throughput (Tons per day)</b>
Las Pulgas Landfill	10,680,000	1,530,000	14.3%	270
Prima Deshecha Sanitary Landfill	172,900,000	84,869,155	49.1%	4,000
San Onofre Landfill	1,920,000	513,000	26.7%	50
Envirocare of Utah	20,000,000	9,100,000	45.5%	2,900

Source: CIWMB, 2004; SCE, 2004.

Fire and police protection for all SONGS operations are made available jointly by SCE, local public service providers, and MCBCP. Table D.10-1, above, lists the public service providers for each jurisdiction in the areas around the Proposed Project. Public service demands would be placed on local emergency service providers in the event of a major accident at SONGS (see Section D.12 for a discussion of accident risk and preparedness contingencies).

Fire protection is primarily provided by the SONGS Fire Department and MCBCP Fire and Emergency Services. As discussed above, SONGS has a mutual aid agreement with MCBCP Fire and Emergency Services. MCBCP, in turn, has mutual aid agreements with San Clemente, Dana Point, and San Juan Capistrano. SONGS employs 22 firefighters in three crews, three full-time nurses that are on-call evenings and weekends, and one physician that visits SONGS one day a week. MCBCP has 11 fire stations, each with a staff of three to four. San Clemente has three fire stations, Dana Point has two fire stations, and San Juan Capistrano has one. Each of these fire stations normally has one fire engine with three to four firefighters and one ambulance staffed with two emergency personnel (SCE, 2004).

Law enforcement and security along the transportation route, at the SONGS facility, and along the route alternatives would be provided by a variety of agencies. As SONGS is located on federal property, the FBI is the primary law enforcement agency at the site. SONGS currently employs 373 security officers and is in the process of hiring and training an additional 47 security officers to meet the security requirements of the Nuclear Regulatory Commission. NRC responsibilities include regulating licensees' security programs and contingency plans for dealing with threats, thefts, and sabotage (see Section A for general NRC-mandated security requirements, including those imposed after September 11, 2001). Security on MCBCP property is enforced by the MCBCP Security Battalion. Additionally, Orange County Sheriff's Offices within 10 miles of SONGS include the San Clemente Sheriff's Office with a staff of 60, the Dana Point Sheriff's Office with a staff of 28, and the San Juan Capistrano Sheriff's Office with a staff of 31. The California Highway Patrol employs 48 officers at its San Juan Capistrano station and 90 officers at its Oceanside station. Support is also available from the U.S. Border Patrol, U.S. Coast Guard, and California State Park Rangers (SCE, 2004).

## **D.10.2 Applicable Regulations, Plans, and Standards**

The following section presents the State, regional and local utility and service system regulations, plans, and standards that are directly applicable to the Proposed Project and alternatives.

### **Federal and State Standards**

The responsibilities of utility operators working in the vicinity of utilities are detailed in Section 1, Chapter 3.1 "Protection of Underground Infrastructure," Article 2 of California Government Code 4216-4216.9. This law requires that an excavator must contact a regional notification center (e.g., USA or "Dig Alert") at least two days prior to excavation of any subsurface installations. Any utility provider seeking to begin a project that could damage underground infrastructure can call Underground Service Alert, the regional notification center for southern California. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area.

In addition, NRC regulations (10 CFR 50, Appendix E<sup>1</sup> regarding emergency planning and preparedness) govern emergency response and safety plans for nuclear facilities. These plans are reviewed and approved by the Federal Emergency Management Agency (FEMA) and NRC (NRC, 2003). See Section D.12, System and Transportation Safety, for additional discussion of federal and State standards with regard to facility security and law enforcement at SONGS.

## **Local Ordinances and Policies**

The San Diego County General Plan, the San Onofre State Beach Revised General Plan, and the MCBCP Integrated Natural Resources Management Plan have a variety of goals and policies related to utilities and public service systems. These documents generally describe the provision and management of public services and activities, water and sewer systems, utility corridors, and the visual and safety aspects of the location of utilities. The provision of fire protection and law enforcement services is described within the plans for the jurisdictions potentially affected by the Proposed Project and the general goals and policies are laid out for these services.

## **D.10.3 Environmental Impacts and Mitigation Measures for the Proposed Project**

### **D.10.3.1 Definition and Use of Significance Criteria**

The Proposed Project would cause significant impacts to public services and utilities if any of the following occur:

- The Proposed Project would disrupt the existing utility systems or would cause a collocation accident;
- The Proposed Project would preclude emergency access or access to public facilities, or would increase the need for police, fire, or school services such that specific new facilities need to be constructed to serve the Project; or
- The Proposed Project would require water, or would generate solid waste or wastewater, that exceeds the ability of existing facilities to accommodate the new capacities and would require the expansion or construction of new facilities.

### **D.10.3.2 Replacement Steam Generator Transport**

Three basic types of impacts for utilities and public services have been identified for the Proposed Project based on the significance criteria listed above: disruption of utility systems, obstruction of emergency access, and utility and public service demand.

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<sup>1</sup> Appendix E to Part 50 – Emergency Planning and Preparedness for Production and Utilization Facilities.

Each applicant for a construction permit is required by § 50.34(a) to include in the preliminary safety analysis report a discussion of preliminary plans for coping with emergencies. Each applicant for an operating license is required by §50.34(b) to include in the final safety analysis report plans for coping with emergencies.

Appendix E establishes minimum requirements for emergency plans for use in attaining an acceptable state of emergency preparedness.

Available: <http://www.nrc.gov/reading-rm/doc-collections/cfr/part050/part050-app.html>.

## Disruption of Utility Systems

The size and weight of the combined RSG and transporter moving along the Proposed Project route could potentially result in disruptions to utility systems. As described in Section B.3.2.1, Beach and Road Route, the total weight of the steam generator and transporter is expected to be approximately 750 tons. The width of the transporter is expected to be approximately 25 feet and the length would be approximately 150 feet, although dimensions of the transporter would not be known until after a final transport vendor is selected. One of the objectives of transporter selection would be to distribute the load safely and uniformly over a large surface area, in part to decrease the potential impact on buried utilities along the transport route.

### Impact U-1: Proposed Project would disrupt utility systems

Transport of the RSGs through the Camp Pendleton Del Mar Boat Basin on Segment A (see Figure B-6a) would not disrupt any utilities, but overhead lines that run to the east of the bulkhead and sewer/waste-water and water lines that run underground to the west of the bulkhead could be crossed by the transporter. The overhead lines to the east would not obstruct unloading from the barge to the transporter, nor would they obstruct the path of the transporter.

The Proposed Project route would avoid potential utility disruptions along Segments B through D, where the route traverses beaches and dirt roads (see Figures B-6a and B-6b). Along Segment F, no overhead lines cross the portion of this segment in the southbound lanes of I-5 and no subsurface utilities are buried in I-5. Where the route transitions from to I-5 in Segment E and from I-5 to Old Highway 101 in Segments F through J, however, there is a potential for disruption of utilities buried in or adjacent to Old Highway 101, such as water and gas pipelines in the pipeline easement that runs parallel to I-5.

Although the Proposed Project would reduce the potential for impacts to buried utilities by selecting a transporter to distribute the load and using matting to further distribute the weight of the transporter and RSG, service disruptions due to accidental damage of utilities could occur. While it is expected that these disruptions would be temporary in nature, these disruptions would hinder activities in the surrounding area. These impacts are considered potentially significant, but could be mitigated to a level that is less than significant with the implementation of Mitigation Measure U-1a. Mitigation Measure U-1a would identify the location of subsurface utilities and require the placement of matting over these areas to minimize the potential for service outages and reduce impacts to less than significant levels (Class II).

### ***Mitigation Measure for Impact U-1, Proposed Project would disrupt utility systems***

**U-1a Identify and protect subsurface utilities.** The Applicant shall contact an appropriate underground digging alert service, such as Underground Service Alert, at least two days prior to transportation of the first RSG. The Applicant shall place DURA-BASE or similar mats over areas where the transporter would cross or pass over subsurface utilities identified and marked by the utility providers to minimize the risk of damage to the utilities.

## Obstruction of Emergency Access

Fire protection or other emergency service providers could be required at a site along the transportation route in the event of an accident or emergency, although the potential for this occurrence during transport activities is low because of their short duration. Although portions of the route pass through brushy, undeveloped areas that could be a fire hazard during dry periods, transport activities would occur between October 2008 and February 2009, when fire hazards are reduced. Watering for dust suppression, a com-

ponent of the Proposed Project as defined in Section B and enumerated as APM AQ-1, would also serve to reduce fire hazard risks. It is not anticipated that transport activities along the Proposed Project route would result in an increased demand for fire protection, law enforcement, or other public services such that the systems would be disrupted. The greatest potential hazard for public service systems associated with the Proposed Project would result from the transporter restricting access for emergency vehicles.

### **Impact U-2: Proposed Project would disrupt public service systems**

The width of the transporter could potentially restrict access to through-traffic along portions of the route, such as in Segment A on MCBCP and Segments G through J along Old Highway 101. It is not anticipated that transport activities would fully block either of these areas. In both areas, it is expected that at least one open lane of traffic would be maintained along the transport route. With appropriate coordination and traffic control from Caltrans and California Highway Patrol, it is not expected that use of the southbound lanes of I-5 would substantially restrict emergency vehicle access. Any restriction of emergency vehicles, however, would be considered a significant impact. Mitigation Measure U-2a would ensure the inclusion of traffic control measures identified in the Work Area Protection and Traffic Control Manual (CJUTCC, 1999), which would ensure adequate emergency vehicle access and reduce this potentially significant impact to a less than significant level (Class II). This measure would be implemented in conjunction with efforts to avoid the adverse effects of temporary road closures as in Mitigation Measure T-1a (provide emergency vehicle access) identified in Section D.13, Traffic and Circulation.

#### ***Mitigation Measure for Impact U-2, Proposed Project would disrupt public service systems***

**U-2a** **Maintain adequate emergency vehicle access.** The Applicant shall implement the provisions of the traffic control plan provided by Mitigation Measure T-1a and appropriate measures from the Work Area Protection and Traffic Control Manual to maintain adequate emergency vehicle access when transporting the RSGs on existing roadways.

### **Utility and Public Service Demand**

During transport along the Proposed Project route, water would be required for dust suppression and drinking water, electricity would be needed to power light towers, and waste disposal would be required for use by work crews. Water for dust suppression would be brought along the transportation route in tanker trucks. Drinking water is expected to be transported along the route in utility trucks or other vehicles. Light towers and other devices requiring electricity would use diesel- or gasoline-powered generators. Trash receptacles would be brought along the route for disposal of waste and chemical toilets would be placed along the route for use by work crews.

### **Impact U-3: Proposed Project's utility, security, and public service demands would exceed the capabilities of existing service providers**

As identified in Table D.10-1, the Proposed Project would be served by a variety of water sources that would be adequate to supply the required water. Because transport along the Proposed Project route would be temporary, the quantity of water used for the Proposed Project would be considered minor. Consequently, the water demand for the transport of the RSGs would have a less than significant impact (Class III) on the regional water supply.

The Proposed Project would not generate any waste other than that produced by the work crews and would not generate or increase wastewater or stormwater runoff. Impacts to solid waste facilities, wastewater facilities, and stormwater quality would be less than significant (Class III).

Security and protection of the RSGs along the transport route would not adversely affect or unnecessarily burden law enforcement services. As described above in Section D.10.1 and in the Project Description (Section B.3.2.1), the RSGs would be attended at all times during transport, and law enforcement and security along the transportation route and at the SONGS site would be provided by the FBI and SONGS security officers, with support from the MCBCP Security Battalion when within MCBCP property. Impacts to law enforcement services would be less than significant (Class III).

As discussed in Section D.11, Socioeconomics, the Proposed Project would not result in a permanent increase to the local population. While some workers may temporarily relocate to the area, it is not expected that this increase would increase any demands on schools or lower the long-term level of service for fire or police protection. There would be no impacts to existing schools, fire, or police department service capabilities.

### **D.10.3.3 Staging and Preparation**

Staging and preparation activities would occur in the OCA or Mesa area of SONGS. Most associated activities (e.g., processing RSG personnel, training, and management activities) would not disrupt utility or public service systems.

#### **Disruption of Utility Systems**

Construction of the temporary structures required for this phase could potentially result in utility system impacts (as described in Impact U-1). As these facilities would be located on existing disturbed or developed land, it is not expected that placement of modular buildings or construction of temporary structures would result in any substantial utility impacts (see Section B for a complete description of proposed temporary structures). Although no major excavation is planned for construction of these facilities, trenching and excavation would occur to run utilities to these temporary buildings. Trenching and excavation could accidentally damage subsurface utilities in the OCA or Mesa area. As described in Section D.10.2, the Applicant is required by State law to manually probe for existing buried utilities prior to excavation. Compliance with State law would ensure that the likelihood of utility disruption as well as any disruption impacts would be less than significant (Class III).

#### **Obstruction of Emergency Access**

Fire protection or other emergency services could be required at staging and preparation sites in the event of an accident (similar to Impact U-2). Because staging and preparation activities would comply with the Applicant's existing safety procedures, programs, and plans as described in Section B.5, the likelihood of an accident requiring such a response would be low. With the implementation of these procedures and programs, staging and preparation is not expected to restrict access to fire, police, other emergency services, or any other public service systems. Any impacts resulting from disruptions to public service systems by staging and preparation activities would be minor and less than significant (Class III).

Staging and preparation would require approximately 1,000 temporary workers. Traffic would be substantially increased with these additional workers, but with the implementation of best management practices (BMPs) for traffic and transportation (see Section D.13 for further descriptions of traffic BMPs),

it is not expected that this increase would be great enough to create conditions which would restrict access to emergency vehicles either within SONGS property or surrounding communities. It is not expected that the temporary population increase in neighboring towns due to an influx of out-of-area workers for the Proposed Project would disrupt fire or police protection services, or other public services such as schools. Any impacts would be less than significant (Class III).

### **Utility and Public Service Demand**

The utility and public service requirements for staging and preparation activities at the SONGS OCA and Mesa area would be within the capacities of SONGS' existing service providers. Water would be needed for cleaning equipment and drinking water for work crews. Waste would be largely be generated in the form of scrap wood and metal, packing crates and packing material, construction debris, and other general trash. These materials would be disposed of by CR&R Refuse and Recycling (the solid waste collection and recycling service provider for SONGS) at the Prima Deshecha Sanitary Landfill in San Juan Capistrano. The volume of solid waste generated in this phase would have little effect on the total capacity of these landfills, as demonstrated in Table D.10-2. Staging and Preparation activities would not increase stormwater runoff because all new temporary facilities constructed or located on site would be placed on existing developed or disturbed land. Any increases in the area of impervious surfaces on-site would be relatively minor. Sewage generated by crews would be treated at one of SONGS two sewage treatment facilities and non-hazardous wastewater from Staging and Preparation activities would be discharged under existing NPDES water quality permits. Staging and Preparation activities would have a less than significant impact on the capabilities of existing utility and public service providers (Class III).

While some of the temporary employees required for staging and preparation would commute to the Proposed Project, others would stay in temporary accommodations in nearby towns. As discussed in Section D.10, Socioeconomics, it is not anticipated that the temporary population increase associated with staging and preparation would require the addition of any new housing. As workers would be staying in existing accommodations, the existing utilities and public service systems have the capacity to accommodate the demands of this temporary population increase. Due to the temporary nature of the work, it is expected that few, if any, workers would relocate their families and/or children to the area for the duration of the Proposed Project. Therefore, it is not expected that the Proposed Project would increase the demands on schools in the surrounding area. It is not anticipated that a temporary population increase of less than 1,000 residents would significantly increase demand for fire or police protection services. Any impacts to utilities or public services due to increased demand from the temporary workers would be adverse, but less than significant (Class III).

### **D.10.3.4 Original Steam Generator Removal, Staging, and Disposal**

OSG removal, staging, and disposal preparation would largely occur at the containment facilities. Most of the activities associated with this phase (e.g., de-tensioning and removal of the interior tendons of the dome, concrete removal, rebar cutting, and removal of a section of the steel liner, OSG removal and packaging for disposal) would not disrupt utility or public service systems.

### **Disruption of Utility Systems**

Any pipelines, telecommunication lines, or power lines obstructing containment opening activities would be shut off and/or redirected for the duration of the activities. It is not expected that OSG removal, staging, and disposal would result in any disruptions to external utility systems. No impact is anticipated.



### Obstruction of Emergency Access

As with the impacts described in Section D.10.3.3, OSG removal, staging, and disposal would include the implementation of the safety procedures and programs listed in Section B.5, as well as compliance with 10 CFR 20 *Standards for Protection Against Radiation*. With the implementation of these procedures and programs, activities associated with this phase are not expected to restrict access to fire, police, other emergency services, or any other public service systems. The emergency services at SONGS are required to have plans in place as a part of the safety procedures and programs to cope with potential accidents at the containment facilities (see Section D.10.2, above). Consequently, any impacts resulting from disruptions to public service systems by preparations for and creation of the containment opening would be less than significant (Impact U-2, Class III).

### Utility and Public Service Demand

Impacts associated with water supply, wastewater generation, and utility and public service systems would be largely the same as described in Section D.10.3.3 (Impact U-3), although this phase would have a greater demand for water and would generate larger amounts of wastewater and solid waste than previous phases of the Proposed Project. However, this phase would have little to no impact on storm-water runoff (Class III) and would not substantially increase demands on fire, police, emergency services or other public services (Class III).

Creation of the containment opening may be performed using hydro-lazing to cut the concrete of the facility walls. The Applicant estimates that approximately 2 million gallons of water, approximately 6 acre-feet, would be required for hydro-lazing the concrete. The Applicant uses approximately 65 acre-feet per month, on average, for normal plant operations, which constitutes approximately 50 percent of its allotment of water from Metropolitan Water District. The volume of water for other activities during the preparation for and creation of the containment opening would be minor compared the volume used for hydro-lazing (SCE, 2004). In 2004, Metropolitan Water District provided an average of 211,000 acre-feet of water per month to all its customers and was able to provide, on average, approximately 26,000 acre-feet per month to storage programs (MWD, 2005). Because the additional 6 acre-feet for hydro-lazing would be well within the facility's allotment for water and would be a minute fraction of the total amount of the total water provided by Metropolitan Water District, this would not result in a substantial additional demand beyond the capability of Metropolitan Water District. Impacts would be less than significant (Class III).

Use of hydro-lazing to cut concrete for the containment opening not only requires additional water, but it also requires the disposal of this water. It is not expected that hydro-lazing would result in the production of hazardous wastewater. Radioactive primary side water from the OSGs would be stored on-site for reuse. Non-radioactive secondary-side demineralized water and wastewater produced from hydro-lazing would be discharged under the existing SONGS 2 & 3 NPDES water quality permit and would not exceed the capacities of the SONGS facility's equipment. Any impacts to wastewater facilities would be less than significant (Class III).

OSG removal, staging, and disposal would result in the generation of waste materials such as concrete, rebar, grease, and oil as well as the sectioned OSG pieces. In addition to the remains of the original steam generators, which would be shipped to Envirocare of Utah, Inc., approximately 40,000 cubic feet of bulk LLRW would be transported to a licensed LLRW disposal facility. Disposal of radioactive materials are addressed in Section D.12. Non-radioactive materials would be recycled or disposed of in accordance with existing SONGS standard disposal procedures. This disposal would not substantially reduce the capabilities of the Prima Deshecha Sanitary Landfill to accommodate solid waste. Impacts would be less than significant (Class III).

### **D.10.3.5 Steam Generator Installation and Return to Service**

No excavation or ground disturbance activities would occur during this stage, and therefore no utility disruptions would occur during the RSG installation activities. The potential emergency access impacts for this phase of the Proposed Project would be similar to the impacts discussed in Section D.10.3.3. Impacts associated with emergency access would be less than significant (Impact U-2, Class III). In addition, impacts associated with water supply, wastewater generated, utility and public service systems demands would all be less than significant (Impact U-3, Class III).

## **D.10.4 Environmental Impacts and Mitigation Measures for the Alternatives**

### **D.10.4.1 Transportation Route Alternatives**

As with impacts described for the Proposed Project route, the size and weight of the combined RSG and transporter moving along the transportation route alternatives could potentially result in disruptions to utility systems (Impact U-1). Accidental damage to utilities and service disruption could result from transport of the RSGs over unidentified utilities. These disruptions would be temporary in nature, but would hinder activities in the surrounding area. These impacts are considered potentially significant, but could be mitigated to a level that is less than significant with the implementation of Mitigation Measure U-1a (Class II).

Like the Proposed Project, fire protection or other emergency service providers could be required at a site along the transportation route alternatives in the event of an accident or emergency. Fire hazards along the transportation route alternatives would be similar to those described for the Proposed Project route, though with less of the route along dirt roads, fire hazards would be reduced. As more of the route follows MCBCP roadways and I-5, however, the potential for restricting access for emergency vehicles is greater under these options than the Proposed Project route. Transport on I-5 would occur only during non-peak hours, as directed by Caltrans. Additionally, the transportation along I-5 would be coordinated with Caltrans and the California Highway Patrol to provide traffic control. Although it is not expected that the transporter would fully block any of the segments for an extended duration, a restriction of emergency access to areas along these roadways would be considered a significant impact (Impact U-2). Implementation of Mitigation Measures U-2a and T-1a (identified in Section D.13, Traffic and Circulation) would ensure that any impacts are reduced to less than significant levels (Class II).

Utility, security, and public service demands (Impact U-3) resulting from the transportation route alternatives would be similar to those described for the Proposed Project route. Impacts associated with water supply, wastewater generated, utility and public service systems would all be less than significant (Class III).

### **D.10.4.2 OSG Disposal Alternative**

#### **OSG Onsite Storage Alternative**

Construction activities associated with the OSG Storage Facility could have a greater potential to disrupt utility systems. As described above in Section D.10.3.3, Staging and Preparation, excavation and trenching for the installation of utility systems could accidentally damage subsurface utility systems. However, as described above in Section D.10.2, Applicable Regulations, Plans, and Standards, the Applicant is required by State law to contact Underground Service Alert and manually probe for existing utilities prior to excavation. Compliance with State law would ensure that subsurface utility disruption impacts would be less than significant (Class III).

Construction and operation of the OSG Storage Facility would comply with all applicable codes and regulations, including NRC standards. It is not anticipated that activities associated with construction of the OSG Storage Facility or transportation of the OSGs to the storage facility would restrict emergency access (as described under Impact U-2), but if access cannot be maintained, however, the access restriction could result in a potentially significant impact (Class II), which could be reduced to a less than significant level with the implementation of Mitigation Measures U-2a and T-1a (Provide emergency vehicle access) in Section D.13, Traffic and Circulation).

The number of workers onsite during this alternative would be similar to those described for Section D.10.3.4, Original Steam Generator Removal, Staging, and Disposal. Traffic would be substantially increased with these additional workers, but with the implementation of traffic and transportation BMPs, it is not anticipated that this increase would be great enough to create conditions which would restrict access to emergency vehicles. It is not expected that the temporary population increase in nearby towns due to the influx of out-of-area workers for the project would disrupt fire or police protection services, or other public services such as schools. Any impacts would be less than significant (Class III).

The utility and public service requirements for construction of the OSG Storage Facility and placement of the OSGs into storage would be well within the capacities of SONGS' existing service providers. During construction of the OSG Storage Facility, water would be required for dust suppression during trenching and excavation, grading, or other earth-moving activities as well as for mixing concrete on-site. Activities associated with removal and transport of the OSGs would require water for cleaning equipment and drinking water for crews. The volumes of water required for these activities could increase the demand for water at SONGS, but the demand would be within the capacities of SONGS water supplies. Waste from OSG storage activities would largely be generated in the form of scrap wood and metal, concrete rubble, packing crates and packing material, construction debris, and other general trash. As described for staging and preparation, these materials would be disposed of by CR&R and deposited at one of the landfills listed in Table D.10-2. The volume of solid waste generated in this phase would have little effect on the total capacity of these landfills. As the OSG Storage Facility would be constructed on existing developed land, any increases in the area of impervious surfaces on-site would be relatively minor and would have minimal impacts on stormwater drainage. Wastewater and sewage generated by crews would also be well within the design capacity of the SONGS wastewater treatment facilities. Construction activities, particularly with the implementation of existing safety plans and programs, are not anticipated to include any activities that would exceed the capacities or capabilities of emergency service providers for SONGS. The OSG Storage Facility would be built according to all applicable codes and standards required by the NRC, and any State and local building codes, including those requiring appropriate sprinklers, alarms, fire flow, and hydrant systems where necessary.

Operation of the storage facility would have a minimal demand for utilities, requiring no regular substantial amounts of water, and generating little to no wastewater or solid waste. Having a new facility on-site could potentially increase demand for public services, however. Security would be provided by security officers already stationed at SONGS. An emergency occurring at the OSG Storage Facility would need to be addressed under an agreed-upon collection of emergency response procedures, which could potentially require emergency resources currently unavailable or not yet reflected in the current emergency response plan. Updated emergency response procedures would need to be implemented as dictated by NRC regulations, 10 CFR 50, Appendix E. The updated plan would be reviewed and approved by FEMA and NRC (NRC, 2003). This would avoid the potentially adverse impact to emergency response services that could be associated with operation of the OSG Storage Facility (Class III).

## **D.10.5 Environmental Impacts of the No Project Alternative**

Shutdown of SONGS under the No Project Alternative would decrease the use of public services and utility systems in the area, including provision of electricity, natural gas, supplemental police and fire protection, and solid waste removal.

Under the No Project Alternative, new generation and/or transmission facilities would be required in San Diego County or elsewhere in southern California to provide electricity and transmission capacity lost by the closure of SONGS 2 & 3. While creation of these facilities would be required to compensate for the lost electrical generation of SONGS 2 & 3, the location and development schedules of these new facilities cannot be predicted.

Construction of these replacement facilities would require a few hundred workers for each facility and would require substantial construction activities for new power plants as well as transmission lines. Construction workers would likely come from the surrounding areas, so any impacts of temporary population growth on utility and public service demands would be minimal. Substantial amounts of excavation and trenching could be required for the construction of replacement power plants and installation of transmission lines. While this could potentially result in the damage or disruption of subsurface utilities, compliance with State law and mitigation measures such as the notification of utility users prior to planned outages would ensure that impacts would be less than significant. Construction activities could also result in access restrictions for emergency vehicles, but potential public service disruption impacts could be mitigated to less than significant levels with the implementation of traffic access and control plans to ensure emergency access is maintained.

Operation of the replacement transmission facilities would have little demand on public services and utilities. Power generation facilities would create some demand for public services, but as many of the employees of these facilities would be drawn from the local areas, new demands on public services should not be substantial. New power plants could, however, require substantial water supplies for cooling, but this potential impact could be mitigated through the use of recycled water. Solid waste generated by the natural gas-fired power plants would likely have a relatively minor impact on nearby landfills unless corresponding landfills are near capacity. New power plants would have to be located in areas with wastewater and stormwater facilities able to accommodate flows generated from the plant and would need to be designed with these factors in mind. With appropriate design consideration, these impacts could be less than significant.

Alternative energy and renewable technologies could be used to make up some of the replacement generation. Wind power, geothermal power, and biomass power are all feasible means of alternative generating strategies. Construction and operation of these facilities would have similar impacts on utilities and public services as traditional power generation, although the requirements for water supplies and demands placed on wastewater and stormwater facilities during operation would be reduced, and in the case of water demand, by a substantial amount. However, the distributed nature of these generation sources would require a substantial redistribution of transmission capacity, with associated construction and excavation with the possibility to disrupt utilities and service systems. With proper mitigation (such as advanced planning or route changes), these impacts could be less than significant.

## D.10.6 Mitigation Monitoring, Compliance, and Reporting Table

Mitigation Measures U-1a and U-2a would reduce potential environmental impacts resulting from the project-related use of facilities located at MCBCP to a less than significant level. Implementation of these mitigation measures on the Base, however, would require prior approval by the Base Commanding General and would be subject to review under the federal National Environmental Policy Act (NEPA).

Table D.10-3 shows the mitigation monitoring, compliance, and reporting program for Public Services and Utilities.

**Table D.10-3. Mitigation Monitoring Program – Public Services and Utilities**

IMPACT U-1	Proposed Project would disrupt utilities (Class II)
<b>MITIGATION MEASURE</b>	<b>U-1a: Identify and protect subsurface utilities.</b> The Applicant shall contact <u>an appropriate underground digging alert service, such as</u> Underground Service Alert, at least two days prior to transportation of the first RSG. The Applicant shall place DURA-BASE or similar mats over areas where the transporter would cross or pass over subsurface utilities identified and marked by the utility providers to minimize the risk of damage to the utilities.
<b>Location</b>	Along RSG transportation routes
<b>Monitoring / Reporting Action</b>	Review and approval of transportation route by CPUC and MCBCP after utilities have been identified and monitoring of transport activities by safety monitor.
<b>Effectiveness Criteria</b>	Appropriate placement of protective mats over subsurface utilities identified and marked by the utility providers.
<b>Responsible Agency</b>	CPUC, MCBCP
<b>Timing</b>	Prior to and during transport activities.
IMPACT U-2	Proposed Project would disrupt public service systems (Class II)
<b>MITIGATION MEASURE</b>	<b>U-2a: Maintain adequate emergency vehicle access.</b> The Applicant shall implement the provisions of the traffic control plan provided by Mitigation Measure T-1a and appropriate measures from the Work Area Protection and Traffic Control Manual to maintain adequate emergency vehicle access when transporting the RSGs on existing roadways.
<b>Location</b>	Along RSG transportation routes
<b>Monitoring / Reporting Action</b>	Review and approval of the traffic control plan by CPUC, MCBCP, Caltrans, and the California Highway Patrol and monitoring of transport activities by safety monitor.
<b>Effectiveness Criteria</b>	Appropriate implementation of Work Area Protection and Traffic Control Manual measures to maintain adequate emergency vehicle access.
<b>Responsible Agency</b>	CPUC, MCBCP, Caltrans, California Highway Patrol
<b>Timing</b>	Prior to and during transport activities.

## **D.10.7 References**

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