Appendix D11: Reliant San Gabriel Generating Station ("SGGS") - 656 MW
8996 Etiwanda, Ranch Cucamonga, CA

Environmental Topic	Impact(s)	Mitigation	Conclusion
Aesthetics (Visual Resources)	**PROJECT SPECIFIC:** The proposed project would not have a substantially adverse effect on a scenic vista, damage scenic resources, degrade the existing visual character, or degrade quality of the site or the surroundings. Although an increase in lighting within the area is possible, the project would not create a new source of substantial light or glare, nor would it adversely affect day or nighttime views in the area. **CUMULATIVE:** Past and current projects have resulted in a local vicinity that is heavily industrialized. The San Bernardino County and City of Rancho Cucamonga General Plans designate the area around the project site as Industrial zone (i.e., Heavy Industrial (HI)); therefore, the SGGS would be constructed in an area set aside for industrial development. The SGGS would be similar in design to existing structures in the area and the level of visual change would be minor, minimizing the potential for the project's considerable contribution to cumulative impacts. The proposed project's cumulative impact would therefore be less than significant.	Inherent in the project description are several design features that will reduce the level of visual impacts, such as the location of the project site (within an industrial setting), being adjacent to existing areas of disturbance, the similarity of proposed structures, the type of facilities being proposed (e.g., dry-cooled), and being sited within a previously disturbed landscape character of the area result in a low level of project contrast helping to reduce overall impacts. Exterior lighting will be limited to areas required by regulations, operations, and safety. Low-intensity lights will be used where allowed by regulations (e.g., site perimeter and parking areas). High-intensity lighting will be limited to areas where such lighting is necessary for operations and safety concerns (e.g., checking equipment). A higher proportion of lighting will be directed and/or shielded to reduce glare towards sensitive viewers.	Less than significant.
Soils - Construction	**PROJECT SPECIFIC:** Construction of the proposed project would result in soil compaction due to the erection of foundations and paving. Soil compaction would also result from vehicle traffic along temporary access roads and in the equipment staging area. Compaction densifies the soil, thereby reducing pore space and impeding water and gas movement through this medium, which can result in increased runoff, erosion, and sedimentation. The incorporation of BMPs during project construction will result in less-than-significant impacts from soil compaction. Soil removed from the site in preparation for construction of foundations and other project facilities will be stockpiled and reused on site after construction is completed. A grading plan will be prepared and a grading permit will be obtained from the City of Rancho Cucamonga prior to construction.	To minimize soil erosion and sedimentation, best management practices will be used during construction activities. Temporary erosion control measures would be required during the construction period to help maintain water quality, protect the site and surrounding property from erosion damage, and prevent accelerated soil erosion or dust generation. These measures will be in place before construction begins and will be removed after completion.	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	CUMULATIVE: Past and current development in the project vicinity has not resulted in a cumulatively significant impact to soils. Relevant future projects would also not be expected to result in a cumulatively significant impact to soils. By definition, the proposed project would not therefore contribute to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than significant.		
Soils - Operation	**PROJECT SPECIFIC:** Plant operations would not result in impacts to the soil from erosion or compaction. Routine vehicle traffic during plant operation will be limited to existing roads, all of which are paved, and standard operational activities should not involve the disruption of soil. **CUMULATIVE:** Past and current development in the project vicinity has not resulted in a cumulatively significant impact to soils. Relevant future projects would also not be expected to result in a cumulatively significant impact to soils. By definition, the proposed project would not therefore contribute to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than significant.	The proposed project will be built within an existing industrial facility. Permanent erosion control measures include drainage systems. Due to the proposed project site's gently sloping and nearly level terrain, additional long-term measures should not be required.	Less than significant.
Air Quality - Construction	**PROJECT SPECIFIC:** The primary emission sources during construction will include exhaust from heavy construction equipment and vehicles and fugitive dust generated in areas disturbed by grading, excavating, and erection of facility structures. Other emissions sources will be on-road delivery trucks and worker commute trips. The AERMOD dispersion model with OLM predicted maximum 1-hour and annual NO2 concentration due to project construction emissions which, when added to conservative background values from the nearest SCAQMD monitoring stations, are below the 1-hour California standard. Predicted maximum impacts for CO and SO_2 are also less than the most stringent ambient standards. The predicted contribution of the proposed construction activities would have the potential to temporarily contribute to existing violations of the state and federal PM_{10} standards if construction occurs during a period of high background concentrations. However, such contributions would be minor and temporary, and would not constitute a significant impact. **CUMULATIVE:** Impacts to air quality during construction will be concentrated in the immediate area of the site. No other new sources have been identified in the local area that would contribute significantly with the project's emissions to produce a significant impact to air quality.	No significant impacts are anticipated, and therefore no mitigation measures are required or proposed beyond those included in the project design. The project will comply with applicable requirements regarding control of fugitive dust during construction.	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
Air Quality - Operation	**PROJECT SPECIFIC:** The most important emission sources of the Project will be the new combustion turbine generator/heat recovery steam generator (CTG/HRSG) trains. The proposed project will also include the operation of an auxiliary boiler. The proposed combustion turbines, the supplemental HRSG duct burners and the auxiliary boiler will all use pipeline quality natural gas fuel exclusively. The incremental impacts of project emissions would be below the federal PSD significant impact levels (SILs) for all attainment pollutants, despite the use of worst-case emissions scenarios for all pollutants and averaging times. Although maximum predicted values for PM_{10} are below the SILS, these thresholds do not apply to this pollutant because the South Coast Air Basin is designated nonattainment with respect to the federal ambient standards. No SILS have been established yet for $PM_{2.5}$. Modeled impacts due to the project emissions, in combination with conservative background concentrations, would not cause a violation of any NAAQS and would not significantly contribute to the existing violations of the federal and state PM_{10} and $PM_{2.5}$ standards. In addition all of the proposed project's operational emissions of nonattainment pollutants and their precursors will be offset to ensure a net air quality benefit. **CUMULATIVE:** A partial cumulative analysis has already been conducted for the operational project plus the existing Etiwanda Generating Station ("EGS") Units 3 and 4 and the adjacent SCE peaker unit. The results of this analysis indicate that the maximum combined impacts of these sources would be less than significant. A more extensive cumulative analysis will be conducted to evaluate the effects of these sources with other new and proposed emission sources within a 6 mile area.	The Applicant is required to provide emissions offsets for increases in emissions of nonattainment pollutants in excess of specified thresholds that will result from the operation of the proposed facility.	Mitigated to less than significant.
Biological Resources – Construction	**PROJECT SPECIFIC:** Construction of the 17-acre SGGS site includes 16.2 acres on the existing 60-acre EGS property and 0.8 acre on land currently owned by Inland Empire Utility Agency, a 530-foot connection to an existing natural gas pipeline of which approximately 200 feet is offsite, construction of an approximately 3,120-foot-long temporary access road, temporary construction laydown areas, an offsite construction laydown area, new access bridge over the Chadwick Channel, and connections to the existing infrastructure of the EGS. The dry wash/drainage through the proposed offsite construction laydown area is a potentially jurisdictional waters of the United States. The water course is a dry wash conveying water only during events resulting in large amount of surface water runoff. This area could be graded or used as a temporary	Biological impacts have been minimized by siting the proposed facilities within an existing power plant facility. The following measures would be implemented to reduce project-related impacts to less than significant levels: • Work conducted within the Chadwick Channel will be conducted while no waters are flowing in the channel. The work area will be separated from the main portion of the channel by temporary cofferdam and visquine to keep any	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	laydown and staging area for equipment and construction supplies and contractor parking, resulting in fill to a waters of the United States. The loss of waters would not be permanent; the existing water flow regime could be restored following use of the laydown area. Temporary disturbance to this feature would be avoidable if the disturbance area avoids the wash. Temporary placement of the fill would not be a significant impact. The construction of the access bridge over Chadwick Channel would result in fill of waters of the United States, due to support structures and riprap placed around the bridge abutments. The watercourse is a dry drainage that conveys water only during events that result in large amounts of surface water runoff. The loss of waters would not be permanent but an alteration to the existing bare bank habitat. Disturbance to waters is avoidable if a clear-span bridge design without riprap bank protection is employed. Based on surveys conducted to date, no special status plant species would be affected. There may be an impact to the Delhi Sands Flower-Loving Fly (DSF), since potential habitat may exist on the proposed offsite construction laydown area. In order to assess the potential impacts to the DSF, a DSF expert will assess the habitat suitability and map the sandy soils. If the habitat is suitable for DSF fly, impacts are expected to be temporary (less than 24-months). The San Bernardino kangaroo rat and the burrowing owl could be present within the proposed offsite construction laydown area. Noise and visual disturbance from construction of the proposed power plant may displace burrowing owls nesting within 250 feet from the site. **CUMULATIVE:** Past and current development in the project vicinity has resulted in cumulatively significant impacts on biological resources, including special-status species and their habitats. Relevant future projects could, unless fully mitigated, further contribute to cumulative impacts. The proposed project would impact wetlands, and would potentially impact Delhi sands flower-loving fly, burrowing owls, San Bernardino kangaroo rat, and Los Angeles pocket mouse and their habitats. Because mitigation measures would fully mitigate for these impacts, the proposed project's contribution to this impact would not be cumulatively considerable. The proposed project's cumulative impact would therefore be less than significant.	construction materials or debris from migrating down channel. Work will comply with permit conditions issued by a regulatory agency (USACE or CDFG). • Grading of the drainage wash will be conducted while no waters are flowing in the channel. Best management practices for stormwater pollution prevention will be employed at the downstream edge of the grading disturbance area. Work will comply with permit conditions issued by a regulatory agency (USACE or CDFG). • If special-status plant species are present that would be affected by work in the proposed laydown areas, temporary access road, or transmission line interconnection, impacts to the plants will be avoided. Avoidance measures could include relocating tower footings, relocating laydown areas to an alternate portion of the proposed parcels, or realignment of the temporary access road to avoid rare plant populations. It is anticipated that these measures would be sufficient to avoid impacts to any special-status plant species that may be present. • No scalebroom shrubs will be cut down. A buffer will be maintained around scalebroom shrubs of native vegetation. • The fine-grained sands found within the laydown area will be removed and stockpile in piles no more than 36 inches deep and will be protected from weedy, non-native species. Sands shall not be stockpiled for more than 24 months prior to replacement as small dune hummocks once the parking area has been returned to natural contours. A restoration plan will be developed for the Delhi sands and submitted for approval to CEC and USFWS. Native plants, including	

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		California buckwheat, California croton, and telegraph weed will be restored from local genetic sources in an open mosaic of 10 to 20 percent vegetative cover. The area will be maintained free of exotic species and ensure establishment of native species within a period of 3 years. The area will be fenced to exclude trespassers and OHVs from the area through restoration period. If restoration of the sandy soils is found to be unfeasible or problematic, DSF fly habitat will be purchased from an authorized mitigation bank in the region. • Limitation of Work Areas**.** Delhi sands will be removed prior to grading operations, stockpiled, and saved, and then replaced as the top layer after the crushed rock surfacing is removed and grading is returned to natural contours. The stockpile is not to be more than 3 feet in height. The disturbed areas will be revegetated and restored to conditions favorable for the DSF fly. • Construction Requirements in San Bernardino Kangaroo Rat Habitat**.** The following measures are proposed to minimize the potential for take of San Bernardino kangaroo rat during construction associated with the preparation and use of the proposed offsite construction laydown area to less-than-significant levels: • Areas to be graded must first be cleared by an approved biologist. • The ends of small-diameter pipes (less than 4 inches inner diameter) must be covered to prevent use by small mammals. • Road-Kill Avoidance**.** Speed limits on nonpublic access and construction roads	

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		are 25 miles per hour or less. Speed limits will be posted at the entrance to the access road from public roadways and intermittently along the access routes. A worker awareness program would be used to inform all workers of the need to watch for and avoid wildlife that may be present along roadways. • Prior to any ground-disturbing activity, a qualified biologist will clear the work area of all mammal, reptile, avian, and amphibian wildlife species. A biologist will be present during grading operations of the top 12 inches of soil to capture and relocate any wildlife uncovered during the grading operations. An orientation of the potential species encountered will be given to all grading personnel. Construction workers will work with biologists to avoid unnecessary harm, injury, or mortality to wildlife. An approved, designated biologist would oversee and implement the following measures. • No tree or shrub removal will occur during the breeding bird season without biological monitor clearance (February 1 to August 31). • Any existing raptor nests near the project area should be removed during the nonbreeding season to minimize potential for nesting in the same location the following year. • Preconstruction survey shall be conducted for any nesting raptor species. • In order to minimize trapping of common wildlife, set up fences around construction zones and relocate any trapped wildlife. Fence areas and trenches should be checked regularly by a biological monitor to rescue and relocate	

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		any trapped animals. • Biological orientation training will be provided for workers onsite to educate them on procedures for minimizing impacts to common wildlife species and any rare occurrences of special-status species that have a low potential to occur in the study area. Burrowing Owl Impact Minimization and Mitigation**.** The following measures are proposed to minimize the potential for take of burrowing owl nests during construction associated with the preparation and use of the proposed offsite construction laydown area to less-than significant levels: • Pre-construction surveys will be conducted throughout the project site and laydown areas for burrowing owls, possible burrows, and sign of owls (i.e., pellets, feathers, white wash, etc.). • Occupied burrows will not be disturbed during the breeding season (February 1 through August 31) unless an approved biologist verifies through non-invasive methods that ether 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrow are foraging independently and are capable of independent survival. • Occupied burrows will be protected with a 300 foot buffer, if possible. • When the destruction of an occupied burrow is unavoidable the owl(s) will be passively relocated in accordance with the CDFG memo dated October 17, 1995. Relocation efforts will occur at least one week prior to ground disturbance of the area.	

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		• Offsite mitigation will be pursued to enhance existing habitat in the region or fund research into the species to enhance survivorship of the species in the region.	
Biological Resources - Operation	**PROJECT SPECIFIC:** The proposed power plant would produce some noise during both construction and operation. Much of the land surrounding the plant is developed by heavy industrial uses. Noise may cause some slight disturbance of wildlife using adjacent areas. However, wildlife in the adjacent areas has likely become accustomed to habitual noise associated with existing plant operation. No significant electrocution hazard exists from new transmission lines as he conductor distance between conductors or between conductors and the ground wire is such that it is unlikely a bird could complete a circuit and be electrocuted. The transmission lines to be constructed for the proposed project would have a minimum distance greater than the wingspan of any birds in the area. Collision and air pollutant emission hazards would be less than significant. **CUMULATIVE:** Operation of the proposed project is not anticipated to contribute to any cumulative impacts to biological resources.	No significant impacts are anticipated, and therefore no mitigation measures are required or proposed.	Less than significant.
Cultural Resources - Construction	**PROJECT SPECIFIC:** No significant cultural resources were identified within the proposed project's study area. The archaeological area of potential effects (APE) for the proposed project consisted of the EGS property (the location the proposed project site) and the offsite areas. It should also be noted, however, that most of the site has been subjected to extensive grading and development, thereby reducing the likelihood that intact cultural deposits exist within the study area. Given the extent of these ground-disturbing activities, it is unlikely that intact archaeological deposits exist undiscovered within the proposed project's study area. It is possible that with proposed project implementation, previously undiscovered archaeological resources may be exposed during construction activities. Unless properly evaluated and managed, this could result in a significant impact to cultural resources. **CUMULATIVE:** Past and current development in the project vicinity has resulted in cumulatively significant impacts on cultural resources, including archaeological and historic architectural resources. Relevant future projects could, unless fully mitigated, further contribute to cumulative impacts. The proposed project would not result in effects to known important cultural resources. Mitigation measures would fully mitigate for impacts to cultural resources discovered during ground	Measures to ensure avoidance of cultural resources within the APE, and measures to avoid indirect impacts to nearby cultural resources are described below. **Avoidance.** If a potentially significant cultural resource is discovered, the route/temporary use area will be modified to avoid that resource. If there are not feasible means to avoid the resource, the cultural resource will be tested; if found significant the measures for mitigation described below will be implemented. These will be done in consultation with the CEC. **Physical Demarcation and Protection.** In instances where a project facility must be placed within 100 feet of a known cultural resource not previously found to be ineligible for inclusion on the CRHR,	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	disturbing activities associated with project construction. Therefore, the proposed project's contribution to this impact would not be cumulatively considerable. The proposed project's cumulative impact would therefore be less than significant.	the cultural resource will be temporarily fenced or otherwise demarcated on the ground, and the area will be designated environmentally sensitive. Construction equipment will be directed away from the cultural resource and construction personnel will be directed to avoid entering the area. Where cultural resource boundaries are unknown, the protected area will include a buffer zone with a 100-foot radius. In some cases, additional archaeological work may be required to demarcate the boundaries of the cultural resource in order the ascertain whether the cultural resource can be avoided. **Crew Education.** Prior to beginning of construction near any sensitive cultural resource, the construction crew will be informed of the resource values involved and of the regulatory protections afforded those resources. The crew will also be informed of procedures relating to designated culturally sensitive areas, and cautioned not to drive into these areas or to park or operate construction equipment in these areas. The crew will be cautioned not to collect artifacts, and asked to inform a construction supervisor in the event that cultural remains are uncovered. **Archaeological Monitoring.** All initial grading or excavation within 100 feet of any potentially significant resource that may have a subsurface component will be monitored by an archaeologist. If subsurface materials are uncovered, construction work in the immediate vicinity will be halted and the emergency discovery procedures described below will be implemented.	

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		Native American Monitoring. In order to ensure participation by interested members of the Native American community, it is recommended that a Native American monitor be present during archaeological cultural resource testing and/or data recovery operations at archaeological cultural resources that appear to have a prehistoric or ethnographic component. The monitor will be retained either directly by the project Applicant, or through the subconsultant conducting the actual fieldwork. **Formal Compliance with CEQA Section 15064.5 and 15126.4 and Section 106 of the NHPA.** In the event that a resource cannot be avoided during the placement of any project facility, further archaeological work will be undertaken as appropriate to assess the importance/significance of the resource prior to the project implementation.	
Cultural Resources - Operation	Operation of the proposed project is not anticipated to result in any impacts to cultural resources.	No significant impacts are anticipated, and therefore no mitigation measures are required or proposed.	Less than significant.
Paleontological Resources	**PROJECT SPECIFIC:** The paleontological potential of the proposed SGGS has been assessed within 1 mile of the existing EGS site (the paleontological resources study area). There are no known paleontological sites within the paleontological resources study area. Construction of the proposed project would impact Pleistocene-age older fan deposits, which has been assigned a High paleontologic rating. The proposed offsite laydown area to the west of the proposed project would impact both Pleistocene-age older fan deposits and Holocene-age wash deposits. The Holocene-age wash deposit has been assigned a Low paleontologic rating. Construction-related excavations within the Pleistocene-age older fan deposits have the potential to impact significant paleontological resources. These impacts would include the destruction of nonrenewable	In order to mitigate the potential for impacts from earth-moving machinery and construction-related excavations, the following mitigation measures would be implemented: **Pre-Construction Meetings.** Pre-construction meetings will be held with key construction personnel to provide brief discussions pertaining to paleontological resource significance, visual identification, and fossil discovery notification procedures.	Mitigated to less than significant.

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	paleontological resources as a consequence of disturbance by earthmoving machinery, and the consequent loss of their scientific data and educational potential. **CUMULATIVE:** Past and current development in the project vicinity has resulted in cumulatively significant impacts on paleontological resources by virtue of ground disturbance in an area of high paleontological sensitivity. Relevant future projects could, unless fully mitigated, further contribute to cumulative impacts. The proposed project would not result in effects to known paleontological resources. Mitigation measures would fully mitigate for impacts to paleontological resources discovered during ground disturbing activities associated with project construction. Therefore, the proposed project's contribution to this impact would not be cumulatively considerable. The proposed project's cumulative impact would therefore be less than significant.	**Monitoring and Salvage.** Field monitoring activities will include: • All areas containing geologic units designated with a potentially sensitive rating shall be monitored by a professional paleontologist when initial ground disturbance occurs, to insure that subsurface paleontological resources are adequately assessed as to their significance. If deemed significant, these shall be salvaged according to professional paleontological standards (e.g., Society of Vertebrate Paleontology standards). This will include removal of identifiable paleontological remains, fossil preparation, and subsequent curation of these remains. • Continue intermittent field monitoring of sites slated for subsurface disturbance. • Halt all construction activity should inadvertent discovery of paleontological remains occur. Follow proper notification procedures provided during preconstruction meeting. The decision to conduct salvage operations will be determined by the project paleontologist in consultation with CEC staff and project management.	
Geology - Construction	**PROJECT SPECIFIC:** Overexcavation and recompaction will be required for the proposed project and in the temporary construction laydown areas in areas with loose unconsolidated soils. Site grading is not expected to result in significant adverse impacts to the geologic environment. **CUMULATIVE:** Construction of the proposed project is not anticipated to result in cumulative impacts to geological resources.	The proposed project may be subjected to moderate earthquake motions in the future. Thus, plant components will be designed and constructed at least to the seismic design requirements for ground shaking specified in the Uniform Building Code for Seismic Zone 4, and in accordance with the final recommendations of the project geotechnical engineer.	Less than significant.
Geology -Operation	**PROJECT SPECIFIC:** Seismically induced ground shaking presents a moderate hazard to the proposed project. This impact is potentially	The proposed project may be subjected to moderate earthquake motions in the	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	significant. Liquefaction and slope failure are not hazards at the proposed project site. No other geologic hazards with the potential to significantly affect the proposed project were identified. With implementation of the mitigation measures proposed all geologic hazards will be reduced to a less than significant level. No significant impacts on the geologic environment are expected from the operation of the proposed plant. **CUMULATIVE:** Past, current, and potential future projects, including the proposed project, would not have a cumulatively significant impact on geologic resources, because there are no known developable natural resources occurring within the vicinity of the proposed project site. While the area lies in an area of known faults, no cumulative impacts are anticipated to the geologic environment as a result of cumulative projects or the proposed project, which will be designed to appropriate engineering design standards. Therefore, the proposed project would not contribute to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than significant.	future. Thus, plant components will be designed and constructed at least to the seismic design requirements for ground shaking specified in the Uniform Building Code for Seismic Zone 4, and in accordance with the final recommendations of the project geotechnical engineer.	
Hazards and Hazardous Materials - Construction	**PROJECT SPECIFIC:** Hazardous materials used during the construction of the SGGS would be limited to small volumes of flushing and cleaning fluids (phosphate or nitrate solutions), cleaning solvents, paint wastes, antifreeze, and pesticides. The most probable accidents involving hazardous materials during construction might occur from small-scale spills during equipment cleaning or use of other materials in the storage areas or during refueling of machinery. Such spills would be immediately cleaned up and materials containing hazardous substances would be properly disposed of. Potential impacts during construction will be at a less-than-significant level. **CUMULATIVE:** Construction of the proposed project is not anticipated to result in cumulative impacts as a result of hazardous materials.	No significant impacts are anticipated, and therefore no mitigation measures are required or proposed.	Less than significant
Hazards and Hazardous Materials – Operation	**PROJECT SPECIFIC:** Hazardous materials would be stored and used on the site during the operation of the combined-cycle gas turbines and Selective Catalyst Reduction (SCR) systems at SGGS. These materials include Aqueous Ammonia at a 29.4 wt%, Oxygen Scavenger, Mineral Insulating Oil, Lubricating/Hydraulic Oil, Propylene Glycol/Water Mixture, Sodium Hydroxide 25%, Permatreat PC-191 Antiscalant, Polyelectrolite (Nalco 8103), Sodium Hypochlorite, Sulfuric Acid 66 Be, Bisulfate (Nalco 7408), Trisodium Phosphate, Hydrochloric Acid, Ammonium Biflouride, Citric Acid, EDTA Chelant, Sodium Nitrite, Carbon Dioxide, Hydrogen, Nitrogen, Natural Gas, CEMS Gases CO, O_2,	The passive mitigation features included in the project design are the concrete containment area around the aqueous ammonia tank, and the containment area around the tanker truck unloading facilities. These design features will reduce potential offsite impacts in the event of an accidental ammonia release to a less-than-significant level; therefore, additional mitigation measures will not	Less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	and NO_X. Emergency response policies and procedures would be outlined in a Business Plan/Contingency Plan that would be prepared prior to commencement of proposed project operations. This plan would describe the necessary actions to be taken by facility personnel in the event of a hazardous material release to the air, soil, or surface waters in the plant vicinity. The most probable accidents involving hazardous materials may include small-scale spills of waste oil or other chemicals from product or satellite storage areas. To avoid potential impacts, all spills would be cleaned up immediately. Aqueous ammonia would be the only hazardous substance present on site in sufficient quantity to be considered a state- or federal-regulated substance subject to the requirements of the Cal/ARP program. Modeling demonstrated that none of the scenarios analyzed resulted in a predicted impact exceeding any of the toxic endpoint concentrations at the nearest offsite receptor locations. While all except the lethal threshold extend beyond the facility fenceline in the worst-case scenario, the impacted areas are completely uninhabited (i.e., there are no human receptors to be exposed to a health risk). Therefore, the potential impacts of these hypothesized accidental release scenarios would be less than significant. **CUMULATIVE:** The proposed project site borders an existing SCE switchyard and vacant SCE-owned land to the south, undeveloped SCE-owned land to the west, a parcel to the southwest owned by the Inland Empire Utilities Agency, and Burlington Northern Santa Fe Railroad tracks to the north. The SCE switchyard is the only facility with the exception of the existing plant that would have hazardous materials on site. The EGS currently has aqueous ammonia storage facilities on site in addition to similar chemicals that are projected for the proposed SGGS. However, only nominal quantities of oils, cleaners, gases, and other hazardous materials are stored at the SCE switchyard or EGS. The majority of these materials are stored inside buildings, which would provide containment in the event of a release. The impacts of an ammonia release at the EGS alone have been determined to be less than significant. Only a natural disaster such as a major earthquake could cause simultaneous accidental releases at any of these facilities. Simultaneous releases of aqueous ammonia from the existing plant and the proposed SGGS project could potentially cause cumulative impacts if the migrating clouds merged. However, it is unlikely, even under a worst-case scenario, that the ammonia plume generated by the proposed project would not migrate far off site. Therefore, it is determined that no probable significant offsite impacts would occur from potential aqueous ammonia	be required.	

Environmental Topic	Impact(s)	Mitigation	Conclusion
	releases at SGGS. Due to the negligible risk of a release from the any of the facilities, there is virtually no potential for hazardous materials from all facilities to produce combined impacts off site. By definition, the proposed project would not therefore contribute to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than significant.		
Water Resources - Construction	**PROJECT SPECIFIC:** During construction, water will be supplied by the EGS existing water supply. Average daily use of construction water is estimated to be about 8,000 gallons. A maximum daily water usage is estimated at 85,000 gallons during the hydrotest of the HRSG and associated piping. There will be three cycles of water to be disposed of during the hydrotest. Depending on the test or washing cycle, the water to be discharged may include some metals or detergents. The water used during the hydrotest will be tested. If suitable for discharge, it will be routed to the sedimentation/detention basin and then discharged to the plant's existing wastewater discharge system. If the water quality is not suitable for discharge, it will be transported by trucks to an approved offsite disposal facility. Similarly, water used to test the gas pipelines will be tested and disposed. Groundwater, surface water and flood hazard impacts are discussed below: • **Groundwater**: Construction of the proposed SGGS will not use groundwater. However, construction of the facility could potentially affect groundwater quality through inadvertent spills or discharge that could then infiltrate and percolate down to groundwater. Estimated maximum depth of excavation for the proposed project is approximately 17 feet. Excavation dewatering during construction is not anticipated since the depth to groundwater at the site is approximately 400 feet bgs. Due to the depth to groundwater, degradation of groundwater is not expected. The septic system would be designed and constructed in accordance with the County of San Bernardino and SARWQCB requirements, which will require the system to be protective of groundwater supplies. No impacts to groundwater are anticipated. • **Surface Water**: Construction of the proposed project facility could affect surface water quality of local creeks and the Santa Ana River through inadvertent spills or discharges. Construction activities could also increase the potential for erosion and uncontrolled runoff of stormwater contaminated with sediments or other pollutants that could impact surface water quality and sedimentation. With the project as designed and implementation of the proposed mitigation measures, the impacts to surface water quality would be less than significant.	Impacts to surface water from erosion are expected to be minimal during construction. Erosion will be controlled in accordance with an approved Erosion Control Plan. All construction activities will be performed in accordance with the California NPDES General Permit for Stormwater Discharge Associated with Construction Activities (SWRCB, 1999), requiring the implementation of BMPs to control sediment and other pollutants mobilized from construction activities. Temporary BMPs may include revegetation, slope stabilization, construction of berms and ditches, and sediment barriers such as straw bales or silt fences to prevent sediment discharges from the site. These measures will be developed and described for the construction activities in a Construction SWPPP that must be prepared before construction begins. With proper implementation of BMPs, no significant impacts to surface water quality are anticipated during short-term construction activities. In addition, use of existing infrastructure will minimize physical impacts from construction activities. No significant impacts to surface water are anticipated as a result of construction activities.	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	• **Flooding**: Grading and construction will be performed in accordance with the City of Rancho Cucamonga's grading standards (Municipal Code Chapter 19.04) and floodplain management regulations (Municipal Code Chapter 19.12). No significant impacts related to flooding are expected as a result of the proposed project. **CUMULATIVE:** Construction of the proposed project is not anticipated to result in cumulative impacts to water resources.		
Hydrology and Water Quality – Operation	**PROJECT SPECIFIC:** The project will use reclaimed water supplied by Inland Empire Utility Agency (IEUA). Plant wastewater will be discharged to the Los Angeles County Sanitation District (LACSD) through the IEUA nonreclaimable industrial waste lines under the SGGS existing Industrial User's permit. The impacts of the proposed project on beneficial water uses are expected to be too small to be significant. Groundwater, surface water and flood hazard impacts are discussed below: • **Groundwater**: Operation and maintenance of the proposed SGGS will not use groundwater. However, operation and maintenance of the facility could potentially affect groundwater quality through inadvertent spills or discharge that could then infiltrate and percolate down to groundwater. Due to the depth to groundwater, degradation of groundwater is not expected. The SGGS will use a small amount of groundwater for its potable water supply; therefore, no impacts to groundwater are anticipated. The septic system would be designed and constructed in accordance with the County of San Bernardino and SARWQCB requirements, which will require the system to be protective of groundwater supplies. No impacts to groundwater are anticipated. • **Surface Water**: The proposed plant will be a dry cooled facility. This technology reduces water demand for power plants. The project will connect to the EGS makeup water supply, which consists primarily of reclaimed water supplied by a local provider. The estimated average annual water use is approximately 220 afy. Maximum daily use at the proposed plant is estimated to be approximately 240 gpm. The proposed project would increase the amount of water used at the EGS by approximately 10 percent. Even with this increase in water usage, the total amount of water used at the EGS is well below the amount of water currently allowed from the plant's water sources. No new offsite pipelines for well or reclaimed water will be constructed to supply needs for the proposed project. Therefore, there will be no adverse impact on water supply or other users of this source. Process water will be discharged to the EGS' wastewater system, which discharges to the IEUA's wastewater	Permanent erosion control measures include drainage systems and revegetation. Operation of the facility will be in conformance with the California NPDES General Permit for Stormwater Discharge Associated with Industrial Activities (SWRCB, 1997). In accordance with this permit, the existing plant's industrial SWPPP will be prepared for the proposed project. BMPs for the proposed project would be similar to the BMPs currently being implemented to control pollutants in stormwater discharges fro the EGS. BMPs will include refueling and maintenance of equipment only in designated lined and/or bermed areas, isolating hazardous materials from stormwater exposure, and preparing and implementing spill contingency plans in specified areas. The proposed project will prepare a Water Quality Management Program (WQMP) in accordance with the local municipal stormwater permit.	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	system under the current permit. The expected composition of the SGGS's process wastewater would be significantly less than the discharge permit limits. Therefore, there would be no adverse impact to IEUA's ability to meet its discharge water quality requirements. Operation and maintenance of the proposed project facility could affect surface water quality of local creeks and the Santa Ana River through inadvertent spills or discharges. With the project as designed and implementation of the proposed mitigation measures, the impacts to surface water quality would be less than significant. Stormwater collected in curbed areas of the plant will be collected and routed through an oil-water separator and detained in a new stormwater detention basin before being discharged into Chadwick Channel. A SWPPP for operations will be prepared in accordance with the NPDES Industrial General Permit requirements and will include BMPs to protect water resources. BMPs similar to those established for the EGS will be implemented as part of the proposed project. Therefore the proposed project will have no adverse impacts to surface water quality. The SGGS will not alter currents or direction of water flow since there will be no significant increase in discharges off site; nor will it obstruct or alter navigable waters because nearby streams are ephemeral. • **Flooding**: Development of the proposed project, which includes buildings, structures, and impermeable surfaces, will reduce the amount of stormwater that infiltrates into the ground and will increase the amount of water that runs off the site. Stormwater runoff will be collected in the plant site area using catch basins, conveyed via a storm drain system and detained in a sedimentation/detention basin. The basin will be designed in accordance with San Bernardino County Detention Basin Design Criteria that requires post-project runoff to be less than preproject runoff. Therefore, proposed the project's impact on runoff volume and resulting increase in downstream flooding is considered less than significant. **CUMULATIVE:** Past, current and potential future projects, including the proposed project, would require a water supply. Impacts on water supply could be considered cumulatively significant due to the scarcity of water in the region. The proposed project will use a very small amount of water (approximately 220 afy), which would have a negligible effect on surface water availability in the region. Because the project will use primarily reclaimed water from IEUA, there would be a negligible increase in groundwater extraction and potable surface water supplies. Therefore, the proposed project would not contribute to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than		

Environmental Topic	Impact(s)	Mitigation	Conclusion
	significant.		
Land Use and Planning – Construction and Operation	**PROJECT SPECIFIC:** Because the proposed project site and surrounding area are zoned for general industrial use and the distance to the nearest agricultural land is approximately 7 miles, there is no potential loss of agricultural land during construction and subsequent plant operation. Air quality was considered as a potential effect to the agricultural lands. Due to the limited construction period and the use of best management practices, dust emissions should not adversely affect agricultural land. The proposed SGGS would not disrupt or divide an established community; would not conflict with any established habitat or natural community conservation plan; nor would it conflict with the City's land use plan or policies for the proposed project site. The proposed project is compatible with the existing EGS facility and land use conditions in the area, which is dominated by industrial use activity. The City of Rancho Cucamonga supports locating power plants in proximity to these existing resources. Therefore, impacts associated with land use compatibility would be less than significant. **CUMULATIVE:** The proposed project and related area projects are in conformance with vicinity zoning and would not result in a cumulative land use impact. By definition, the proposed project would not therefore have a cumulatively considerable contribution to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than significant.	No significant impacts are anticipated, and therefore no mitigation measures are required or proposed.	Less than significant.
Noise - Construction	**PROJECT SPECIFIC:** Construction of SGGS would temporarily elevate the noise levels in the surrounding community. Most often the sound levels would be moderate, with a few processes causing short-term, substantially elevated noise levels to occur. Because construction would be of a limited duration, will be conducted during daylight hours, and best practices for construction noise control will be implemented, no adverse construction noise effects are expected to occur in the surrounding community. **CUMULATIVE:** Construction of the proposed project is not anticipated to result in cumulative noise impacts.	The project will implement the following measures during construction activities: • Construction noise emission shall comply with all local LORS regarding hours of construction activity and permitted noise levels affecting adjacent uses. • All construction equipment should be operated and maintained to minimize noise generation. Equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and other shrouds or noise reducing features, in good operating condition that meet or exceed original factory specifications.	Mitigated to less than significant

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		Mobile or fixed "package equipment" shall be equipped with shrouds and noise control features that are readily available for that type of equipment. • The use of noise-producing signals, including horns, whistles, electronic alarms, and sirens and bells, will be for safety warning purposes only. • No construction-related public address, loudspeaker, or music system shall be audible at any adjacent noise-sensitive land use. • The construction contractor shall implement a noise complaint process and hotline number for the surrounding community. The Applicant will have the responsibility and authority to receive and resolve noise complaints.	
Noise - Operation	**PROJECT SPECIFIC:** The proposed power plant will have a combined cycle configuration of two Siemens 5000F gas combustion turbines, two heat recovery steam generators (HRSGs) equipped with duct burners, a steam turbine generator (STG), an air-cooled condenser (ACC) array, and associated auxiliary systems and equipment. Major noise-generating components would include combustion turbine generators (CTGs), an STG, compressors, ACCs, HRSGs, finned fan coolers, and transformers. The nearest noise sensitive receptor is located approximately 0.4 mile northeast of the proposed SGGS. The plant's operational sound levels would only slightly increase this receptor's existing Ldn by 1 dBA. All residences are located far enough away from the proposed project site, such that SGGS would have no appreciable effect on existing ambient noise levels. There are no residential land uses next to the proposed project. The CTGs, transformers, and combustion turbine inlet compressors produce tonal sounds. Because of the care taken in specifying the plant's engineering design features, no prominent tonal noise emissions will be propagated to the noise-sensitive receptors. **CUMULATIVE:** Past and current development in the project vicinity has resulted in a cumulatively significant increase in noise levels. Relevant future area projects could further contribute to cumulative noise impacts. The proposed project would result in increases in noise levels, primarily	To minimize noise from operation of the project, the following measures have been incorporated into the plant design: • Inlet air silencer (8 feet for up and over with lined elbow); • Gas turbine – sound attenuated enclosure; • Exhaust diffuser and duct – acoustical barrier; and • Gas compressors – sound attenuated enclosure. To ensure that acoustical design goals are met by the facility while in operation, the following Conditions of Certification are recommended: **Noise Attenuation Measures.** The proposed project design and implementation shall include appropriate noise attenuation measures adequate to ensure that the noise level produced by operation of the project will not exceed an hourly average exterior noise level of	Less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	within the plant boundary and westward in an area where no sensitive receptors are located or planned. Therefore, the proposed project's contribution to this impact would not be cumulatively considerable. The proposed project's cumulative impact would therefore be less than significant.	more than 47 dBA Leq at any residence. No new pure tone components may be introduced. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints, as determined by the compliance project manager (CPM). Pressure relief valves shall be adequately muffled to preclude noise that draws legitimate complaints, as determined by the CPM.	
Population/Housing/Public Services - Construction	**PROJECT SPECIFIC:** Construction of the proposed project would not result in any substantial permanent population increases or changes in concentration of population due to the temporary nature of construction. Construction workers would be a temporary addition to the proposed project site population during the daytime, especially during the peak period. Few workers would likely commute on a weekly basis and therefore purchase lodging in San Bernardino County during the week. Few workers are expected to relocate to work on the project. The temporary influx of construction workers during daytime hours is not expected to place demands on the housing industry or the local lodging industry that cannot be met. Schools would not experience any meaningful impact during construction, as any population increase that does occur attributable to the proposed project would be negligible. Few construction workers are expected to relocate due to the SGGS. **CUMULATIVE:** Construction of the proposed project is not anticipated to result in cumulative impacts on these resources.	No significant impacts are anticipated, and therefore no mitigation measures are required or proposed.	Less than significant.
Population/Housing/Public Services - Operation	Operation of the proposed project would not result in any substantial permanent population increases or changes in concentration of population. Although both residences and businesses are located near the proposed project site, operation of the SGGS would occur completely within EGS boundaries and would be consistent with the current types of industry and businesses nearby. Plant operations positions would likely be filled from within the four-county area of San Bernardino, Riverside, Los Angeles, and Orange counties. Schools would not experience any meaningful impact during operation, as any population increase that does occur attributable to the proposed project would be negligible. Few operation employees are expected to relocate due to the SGGS. Although the increase of 20 operation employees (18 full-time equivalents) would increase the demand for medical facilities in the City of Rancho	No significant impacts are anticipated, and therefore no mitigation measures are required or proposed.	Less than significant.

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	Cucamonga, the number of new families in the area would be negligible. No problem is anticipated in accommodating the slight additional demand for medical services. These impacts would be less-than-significant. The increase in demand for utilities during project operation could be met. The number of new permanent residents in nearby communities as a result of the proposed project would be negligible. Impacts to utilities attributable to the proposed project would be less than significant. **CUMULATIVE:** Cumulative impacts on population are expected to be less than significant because the permanent workforce would be minimal, and subsequent impacts on the region's ability to provide public services would also therefore not be affected. Past and current projects, along with relevant future projects, would result in short-term and long term employment in the project vicinity which would be beneficial. The most substantive beneficial socioeconomic effects are the long-term increase in the tax base, the short-term increased demand for construction workers, and permanent new jobs. Due to the proximity of a large workforce, these future projects, combined with the proposed project, would not result in significant cumulative impacts on socioeconomic resources in the project vicinity. By definition, the proposed project would not therefore contribute to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than significant.		
Solid/Hazardous Waste – Construction	**PROJECT SPECIFIC** During construction of the SGGS, the primary waste generated would be solid nonhazardous waste. However, some nonhazardous liquid waste(s) would also be generated. It is anticipated that some hazardous solid and liquid waste(s) would also be generated during plant construction. Generation of hazardous waste during construction of water and natural gas supply lines and the electrical transmission lines to the adjacent substation is anticipated to be minimal. Nonhazardous solid wastes (municipal solid waste or garbage) will be recycled. If the material is not recyclable, it will be disposed of at a Class III landfill. Nonhazardous liquid wastes (stormwater runoff and domestic wastewater) will be discharged to the sedimentation/detention basin or to the septic system. Both solid and liquid hazardous wastes will be disposed of at a treatment, storage, and disposal facility (TSDF) or placed into a permitted Class I landfill. The majority of the hazardous waste generated during construction would consist of liquid waste such as waste oil from routine equipment maintenance, flushing and cleaning fluids, passivating fluids (to prepare piping for use), waste solvents, and waste paints or other material coatings. Additionally, some solid waste in the form of spent welding materials; oil filters; oily rags; absorbent, spent batteries; and empty	The nonhazardous solid wastes produced during construction will be collected in onsite dumpsters and periodically picked up for disposal. The waste will be taken to an appropriate facility where recyclable materials will be removed and the residue will be disposed of at an appropriate landfill. The disposal of wastewater will be coordinated by the construction contractor. Stormwater will be discharged in accordance with the requirements of the construction stormwater management permit obtained prior to construction. However, it is anticipated that storm water discharge will be to Chadwick Channel, which traverses the EGS. The generation of nonhazardous wastewater will be minimized through water conservation	Mitigated to less than significant

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	hazardous materials containers may also be generated. The quantities of solid hazardous waste that would be generated are well below the capacity of the available disposal facilities, and most of the liquid hazardous wastes would be recycled. These increases in waste volume would not significantly affect the capacity of the available hazardous waste treatment and disposal facilities and would be a less-than-significant impact. **CUMULATIVE:** Past, current and potential future projects, including the proposed project, would generate nonhazardous waste. There are, however, adequate recycling facilities and landfill capacities to dispose of the waste from San Bernardino County over the next 40 to 50 years. While nonhazardous waste generated by the proposed project would add to the total waste generated in San Bernardino County and in California, it would not be contributing to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than significant. Past, current and potential future projects, including the proposed project, would generate hazardous waste. California has more than adequate treatment and disposal capacity for the hazardous wastes that cannot be recycled. The hazardous waste generated at the facility will be recycled and treated to the extent possible. By definition, the proposed project would not therefore contribute to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than significant.	and reuse measures. The majority of the hazardous waste generated during construction will be liquid wastes (waste oil, cleaning fluids, passivating fluids, and solvents). The construction contractor will manifest these wastes for disposal at a permitted Class I facility or recycling facility. Some solid waste (e.g., dried paint, welding materials, or spent filters) may be generated, but the quantity of this material is expected to be minimal. The construction contractor would be the generator and will dispose of this waste in accordance with all federal, state, and local laws and regulations.	
Solid/Hazardous Waste - Operation	**PROJECT SPECIFIC:** Nonhazardous solid and liquid waste will be generated from plant operations, as well as varying quantities of liquid and solid hazardous waste. Hazardous wastes generated by the proposed plant will include spent selective catalytic reduction (SCR) and oxidation catalyst, used oil filters, used oil, and chemical cleaning wastes. Spent SCR and oxidation catalyst will be recycled by the catalyst supplier. Used oil filters will be recycled or disposed of in an offsite disposal facility. Used oil will be recovered and recycled by a waste oil recycling contractor. Chemical cleaning wastes will consist of acid and alkaline cleaning solutions used for preoperational chemical cleaning of the HRSG pressure parts and steam cycle piping systems; acid cleaning solutions used for periodic chemical cleaning of the HRSGs; and wash water used in periodic cleaning of the HRSG, CTG, and STG. These wastes, which may have elevated concentrations of metals, will be tested. If hazardous, they will be disposed of in accordance with all applicable laws, ordinances, regulations, and standards (LORS). These and all other hazardous solid and liquid wastes will be disposed of in accordance with applicable LORS. The amount of solid hazardous waste that would require offsite disposal	To avoid the potential effects on human health and the environment from the handling and disposal of hazardous wastes, procedures will be developed to ensure proper labeling, storage, packaging, recordkeeping, and disposal of all hazardous wastes. Handling of hazardous wastes in this way will minimize the quantity of waste deposited to landfills.	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	would result in a nominal (less than 0.01 percent) increase relative to current disposal volumes at approved landfills in California and would be a less-than-significant impact. **CUMULATIVE:** Past, current and potential future projects, including the proposed project, would generate nonhazardous waste. There are, however, adequate recycling facilities and landfill capacities to dispose of the waste from San Bernardino County over the next 40 to 50 years. While nonhazardous waste generated by the proposed project would add to the total waste generated in San Bernardino County and in California, it would not be contributing to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than significant. Past, current and potential future projects, including the proposed project, would generate hazardous waste. California has more than adequate treatment and disposal capacity for the hazardous wastes that cannot be recycled. The hazardous waste generated at the facility will be recycled and treated to the extent possible. By definition, the proposed project would not therefore contribute to a cumulatively significant impact, and cumulative impacts of the proposed project would be less than significant.		
Traffic Impacts - Construction	**PROJECT SPECIFIC:** Project construction would result in short-term increases in vehicle trips by construction vehicular activities and construction workers. Construction trips would not result in a significant change to the Level of Service (LOS) of the local access roads, and will not result in a significant impact. Project construction would add temporary trips to nearby segments of the I-15 and I-10, but would not result in further deterioration of already impacted LOS or reduce non-peak hour LOS to worse then LOS D, which would be a less than significant impact. **CUMULATIVE:** Based on available information, the proposed project's construction traffic would not coincide with known potential future projects, so its contribution to cumulative traffic impacts during construction would not be cumulatively considerable, and cumulative impacts of the proposed project would therefore be less than significant.	During project construction no study roadway segments and intersections would be significantly impacted by the proposed project. The project proponent will develop and implement a standard traffic control plan consistent with the size and scope of the project construction activity designed to minimize impact to traffic flow. Proposed measures include but are not limited to the following: **Traffic Control Measures.** Use proper signs and traffic control measures in accordance with Caltrans, County and City requirements. All traffic signs, equipments and control measures shall conform to the provisions specified in the Caltrans Traffic Manual (Red Book) and the Manual of Uniform Traffic Control Device. Specific jurisdictional requirements will be identified during the plan review and approval process.	Less than significant

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		Lane Closures. Schedule traffic lane or road closures during off-peak hours whenever possible (e.g., during construction of offsite gas pipeline across Etiwanda Avenue). **Limit Construction Traffic.** Limit vehicular traffic to designated access roads, construction laydown and worker parking areas, and Project construction site. Encourage worker carpooling to minimize drive-alone worker trips.	
Traffic Impacts - Operation	**PROJECT SPECIFIC:** The project is projected to begin operations in 2010. At this time, plant operations will require approximately 18 full-time permanent personnel with 11 employees during the day shift. Based on the minimal operational added trips, the SGGS plant operations would not substantially change the LOS of the roads and intersections in the study area. Therefore, no significant traffic impacts during project operations are anticipated. **CUMULATIVE:** Past and current development in the project vicinity has resulted in a cumulatively significant increase in traffic in the project vicinity, particularly on freeways during peak periods. Relevant future projects could further contribute to cumulative traffic impacts. In particular, the proposed major distribution warehouse complex within the City of Fontana and the automobile recycling business located north of the proposed project could result in increased truck traffic exiting/entering the I-10 freeway at Etiwanda Avenue, which may add to the cumulative impacts at the on and off ramps. The Caltrans improvements along I-10 and I-15 could alleviate some of these cumulative impacts, but no information regarding specific implementation efforts is currently available with the exception of the published and circulated study. During operation, the proposed project will generate minimal additional traffic. Therefore, the proposed project's contribution to this impact would not be cumulatively considerable. The proposed project's cumulative impact would therefore be less than significant.	The operations-and maintenance-related traffic associated with the project is considered to be minimal. State routes and local roadways have adequate capacity to accommodate operations-related traffic. Consequently, no operations-related mitigation measures are required.	Less than significant
Public Health - Construction	**PROJECT SPECIFIC:** Due to the relatively short duration of the proposed project construction (i.e., 22 months), significant long-term public health effects are not expected to occur as a result of project construction emissions. Diesel particulate exhaust is the air pollutant with	No significant impacts are anticipated, and therefore no mitigation measures are required or proposed.	Less than significant.

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	the largest potential for human health risk emitted during the construction period. Diesel particulate has been classified as a toxic air contaminant and a carcinogen. However, the exposure assessment conducted for carcinogens is typically 70 years; due to the short duration of the construction effort, carcinogenic health risks are not predicted. **CUMULATIVE:** Construction of the proposed project is not anticipated to result in cumulative impacts on public health.		
Public Health – Operation	**PROJECT SPECIFIC:** The primary sources of potential emissions from facility operations would be the two natural gas-fired combustion turbine generators (CTGs) and heat recovery steam generators (HRSG) duct burners, as well as the aqueous ammonia slip stream from the selective catalytic reduction (SCR) control system on both turbine/HRSG trains. Natural gas combustion in the auxiliary boiler would also be a source of potential emissions. The estimated cancer risks at all locations near the project are well below 0.5 in 1 million. Thus, the proposed project emissions are expected to pose a less-than-significant increase in carcinogenic health risk. The estimated chronic and acute total hazard indices (THIs) are well below 0.1. Thus, the proposed project emissions of noncarcinogenic TACs would not be expected to pose a significant risk. The dispersion of the criteria pollutants (nitrogen dioxide, CO, sulfur dioxide, and PM_{10}) was modeled. The results show that the proposed project would not cause a violation of any state or federal AAQS and would not significantly contribute to existing violations of federal and state PM_{10} and ozone standards. Therefore, no significant adverse health effects are anticipated from the proposed project's criteria pollutant emissions.. **CUMULATIVE:** The cancer burden (the combined weighted risk of people exposed to an incremental cancer risk of 1 in a million or greater) due to the combined emissions of the proposed project, existing Units 2 and 4 and the proposed nearby SCE peaker unit was predicted to be 0.058. The estimated cancer risk at all locations is below 10 in 1 million. Therefore, the proposed project's emissions along with those of the EGS Unit 3 and 4 and the SCE peaker would not pose a significant cancer risk to any populations potentially exposed to these emissions. The estimated chronic and acute THIs are both well below 1.0. Therefore, the proposed project's combined with EGS Units 3 and 4 emissions would not pose a significant noncancer health risk to any populations that would potentially be exposed to these emissions. By definition, the proposed project would not therefore contribute to a cumulatively significant impact, and	The criteria pollutant emissions from the proposed project will be mitigated by the use of Best Available Control Technology (BACT) and through emissions offsets. The toxic pollutant emissions from the proposed project will also be mitigated by the exclusive use of natural gas fuel. In addition, pollution control technologies employed to control criteria pollutants (specifically, the oxidation catalyst on the CTG/HRSG) will also significantly reduce organic TACs. These measures satisfy the SCAQMD requirements for toxics (T-BACT) for natural gas-fired generation units. The HRA shows that the health effects impacts of the project as proposed would be well below the identified significance thresholds. Therefore, no further mitigation of emissions from the proposed project is required to protect public health.	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	cumulative impacts of the proposed project would be less than significant.		