Appendix D9: City of Victorville Hybrid 550 MW Power Project
NE Intersection Colusa Road & Helendale Road, Victorville

Environmental Topic	Impact(s)	Mitigation	Conclusion
Agricultural (and Soil) Resources - Construction	**PROJECT SPECIFIC:** The VV2 Project will not cause significant impacts to agriculture or soils. The Project site is partly disturbed and undeveloped. The site and offsite linear facilities routes (pipelines and transmission line) are mapped by the State as Grazing Land and do not encroach on Prime Farmland, Farmland of Statewide Importance or Unique Farmland. The nearest farmland in any of these categories is Prime Farmland located approximately 0.4 mile east of a portion of Segment 1 of the Project transmission line. Site soils (power plant location and transmission line corridors) are subject to wind and water erosion during construction activities. Construction activities will be in conformance with applicable regulatory requirements and sound construction practices. **CUMULATIVE:** With the implementation of measures to control erosion and sedimentation, including standard, good construction practices and the mitigation measures proposed, the VV2 Project is expected to have minimal impacts on soils conditions.	• An erosion control and revegetation plan will be developed and implemented to ensure minimum soil loss and maintain water quality. Erosion and sedimentation control measures include but are not limited to minimizing disturbance; wetting the roads in active construction areas, and laydown areas; controlling speed on unpaved surfaces; placing gravel in entrance ways; use of straw bales, silt fences, and earthen berms to control runoff; restoration of native plant communities by natural revegetation or by seeding and transplanting • Conduct grading in compliance with good industry practice and City of Victorville grading permit requirements. • Conduct Project construction activities and operation in accordance with Stormwater Pollution Prevention Plan (SWPPP) that will include Best Management Practices (e.g., use of runoff control measures such as hay bales and silt fences, regular inspections of drainage control structures) to reduce erosion and sedimentation.	Mitigated to less than significant.
Agricultural (and Soil) Resources - Operation	**PROJECT SPECIFIC:** The VV2 Project will not cause significant impacts to agriculture or soils. The Project site is partly disturbed and undeveloped. The site and offsite linear facilities routes (pipelines and transmission line) are mapped by the State as Grazing Land and do not encroach on Prime Farmland, Farmland of Statewide Importance or Unique Farmland. The nearest farmland in any of these categories is Prime Farmland located approximately 0.4 mile east of a portion of Segment 1 of the Project transmission line. Site soils (power plant location and transmission line corridors) are subject to wind and water erosion during operation. Restoration of native plant communities by natural revegetation or by seeding and transplanting and	• An erosion control and revegetation plan will be developed and implemented to ensure minimum soil loss and maintain water quality. Erosion and sedimentation control measures include but are not limited to minimizing disturbance; wetting the roads in active construction areas, and laydown areas; controlling speed on unpaved surfaces; placing gravel in entrance ways; use of straw bales, silt	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	stormwater prevention are expected to mitigate adverse impacts to not significant. **CUMULATIVE:** With the implementation of measures to control erosion and sedimentation, including standard, good construction practices and the mitigation measures proposed, the VV2 Project is expected to have minimal impacts on soils conditions.	fences, and earthen berms to control runoff; restoration of native plant communities by natural revegetation or by seeding and transplanting • Conduct Project construction activities and operation in accordance with Stormwater Pollution Prevention Plan (SWPPP) that will include Best Management Practices (e.g., use of runoff control measures such as hay bales and silt fences, regular inspections of drainage control structures) to reduce erosion and sedimentation.	
Air Quality - Construction	**PROJECT SPECIFIC:** An Air Quality Impact Analysis (AQIA) was performed for the Project with respect to Federal Significant Impact Levels (SILs), Federal Prevention of Significant Deterioration (PSD) increments, National Ambient Air Quality Standards (NAAQS), and California Ambient Air Quality Standards (CAAQS) for construction . Air dispersion modeling of expected Project emissions during construction demonstrate that the Project will not cause or contribute to exceedances of the ambient air quality standards, with the potential exception of 1hour NO2 and PM10 and PM2.5 standards during construction. **CUMULATIVE:** Construction for the SCLA Rail Service/Intermodal project is expected to occur over about a year from October 2007 through September 2008 (Stirling Airports International, 2006). Expansion of the VVWRA facilities is scheduled to be completed during 2008, and the SCLA expansion is a long-term project expected to be done over the next several years. Minimal overlap between project construction activities and those of the SCLA Rail Service/Intermodal project is expected. Construction impacts for these projects, including the VV2 Project, are expected to be localized and temporary. The VV2 Project will provide mitigation to minimize its impacts during construction. Cumulative impacts from construction are not considered to be significant because of the limited horizontal extent of impacts from construction activities.	• To mitigation of the high modeled NO2 and PM10 impacts, the construction start times will be delayed during the winter, spring, and fall months, as needed, to prevent construction activities during the hours where low-dispersion meteorological conditions have the potential to produce high concentrations due to emissions from construction equipment. These construction start times will be determined by month based upon further analysis. • In addition, standard construction practices are proposed for construction activities including the following: o Use of Tier 3 engines with particulate filters on the scrapers used for grading. o Frequent watering of haul roads and disturbed surfaces to reduce fugitive dust emissions. o Use of good engineering practice in the maintenance of all construction o equipment.	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
Air Quality - Operation	**PROJECT SPECIFIC:** The VV2 Project is classified as a major source (>100 tons per year) of nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM10). The Project's combined-cycle equipment will be fueled with clean burning natural gas and will employ Best Available Control Technology (BACT) to control air emissions. This will include SCR systems and dry low NOx combustors to reduce NOx emissions and oxidation catalysts for control of CO and volatile organic compounds (VOCs). An Air Quality Impact Analysis (AQIA) was performed for the Project with respect to Federal Significant Impact Levels (SILs), Federal Prevention of Significant Deterioration (PSD) increments, National Ambient Air Quality Standards (NAAQS), and California Ambient Air Quality Standards (CAAQS) for commissioning and operation. Air dispersion modeling of expected Project emissions during commissioning, and operations demonstrate that the Project will not cause or contribute to exceedances of the ambient air quality standards, with the potential exception of the PM10 24-hour CAAQS during operation. An AQIA and an analysis of air quality related values (AQRVs, e.g., visibility and acid deposition) analysis was performed for PSD Class I areas within 100 kilometers of the VV2 project site. These analyses conclude that the project will have no significant impact on the air quality or AQRVs in these areas. **CUMULATIVE:** During operation, the VV2 Project is modeled to have insignificant impacts for all pollutants except PM10. Modeled 24-hour PM10 impacts above the SILs were very limited and only involved three receptors at the facility fenceline. Potential exceedances of the 24-hour and annual PM10 CAAQS were due to the already high background levels in the area. Cumulative modeling would consist of the Project modeled maximum impacts, a maximum background concentration, and any other source in the area that had been permitted or was in the permitting process, such that its contribution was not reflected in the measured background concentrations. A background source inventory was requested from the MDAQMD to conduct the cumulative modeling analysis. Based on conversations with MDAQMD no significant sources are in permitting process or have not yet been built. The nearby TXI Oro Grande cement plant located approximately 3 miles SE of the VV2 Project is currently undergoing a modernization. However, air emissions for the modified facility will be less than or equal to current emissions.	Both California and Federal laws require major new sources of non-attainment pollutants located in non-attainment areas to provide emission offsets in the form of ERCs. The VV2 Project will offset NOx and VOC emissions as a precursor to ozone, as well as PM10, and the Applicant is securing ERCs to satisfy these requirements	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	Criteria pollutant emissions during operation of the VVWRA facility are expected to be minimal (Victor Valley Wastewater Reclamation Authority, 2005). Therefore, operational emissions from the VV2 Project and the VVWRA facility will not cause significant adverse cumulative impacts. The EIR for the SCLA Rail Service/Intermodal project estimated operational criteria pollutant emissions (City of Victorville, 2004). Operational emissions of the SCLA Rail Service/Intermodal project and SCLA expansion will be primarily from regional mobile sources, including employee commuting trips and truck trips. Because emissions from the VV2 Project that could potentially cause regional impacts (ozone precursors NOx and VOC) will be completely offset, emissions during operation of the VV2 Project will not cause cumulative adverse impacts when combined with the regional mobile source emissions from the SCLA Rail Service/Intermodal Project. Locomotive operations during operation of the SCLA Rail Service/Intermodal project will generate localized emissions. Operational CO and PM10 emissions were estimated be less than CEQA significance thresholds established by the MDAQMD. Therefore, operational CO and PM10 emissions from the VV2 Project are not anticipated to cause significant adverse cumulative impacts when combined with the emissions from locomotive operations. Although NOx emissions from locomotive operations were estimated to exceed the MDAQMD CEQA significance thresholds, they are not anticipated to cause significant adverse cumulative localized NO2 impacts when combined with emissions from the VV2 Project because of the distance between the two projects.		
Air Quality (Public Health)	**PROJECT SPECIFIC:** There are multiple topics that potentially relate to public health concerns from operation of the VV2 Project. These topics include the potential for health impacts due to the emissions of air pollutants; health risks from the emissions of air contaminants and airborne pathogens; exposure to hazards from the handling of wastes, chemicals and other materials; exposure to electromagnetic fields (EMF) from the transmission of the power; and safety concerns for workers. Most of these topics are addressed in other sections in this AFC document. A health risk assessment was conducted to determine the potential impacts from Project emissions of hazardous air pollutants. Analysis showed the cancer risk at the point of maximum impact (PMI) to be 0.73-in-one-million. Non-cancer maximum chronic health hazard impact at the PMI	• Emissions of criteria pollutants will be minimized by applying Best Available Control Technology (BACT) to the emission sources, which will include the use of natural gas and oxidation catalysts in the combustion turbines. These measures also effectively minimize and control TAC/HAP emissions. Power generation with solar energy will also reduce the health risks per MW produced from this project. As demonstrated in the health risk analysis, no significant	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	was determined to be 0.0065 and non-cancer maximum acute health hazard impact at the PMI was determined to be 0.094. All estimated health risks at their respective PMI were below the MDAQMD significance criterion of 1-in-one-million for cancer risk and 1.0 for non-cancer chronic and acute health impacts. In addition to the PMI, health risks were evaluated at sensitive receptors. Sensitive receptors are defined as groups of individuals that may be more susceptible than the population at large to health risks due to exposure to toxic air contaminants, such as schools, day care facilities, convalescent homes, and hospitals. Only one sensitive receptor is located within three miles of the Project site, the Oro Grande Elementary School. Impacts at this site were less than 2 percent and less than 11 percent of the PMI values for cancer risk and non-cancer risk, respectively. Based on results of the risk assessment, the VV2 Project poses an insignificant incremental cancer and non-cancer health risk impact, according to established regulatory guidelines. **CUMULATIVE:** A qualitative assessment of cumulative impacts to public health risks was evaluated comparing health risks posed by other similar operations in the project area and by sources of similar chemical substance emissions to those risks posed by the proposed VV2 Project. Cumulative projects include the SCLA expansion, SCLA Rail Service (also referred to as the "Intermodal" project), and the VVWRA expansion project. Emission from the SCLA Intermodal project are expected to be generated primarily from mobile sources, such as movement of freight that involves various transfers between rail and truck and rail to rail. Air toxic impacts from stationary and mobile sources tend to decrease with distance from the source. Given the relatively large distances from the VV2 Project site to any population centriods or individual receptors and the low level of air toxics impacts produced by the VV2 Project, the probability of significant cumulative air toxic impact is also very low. In addition, ongoing Federal and State diesel motor vehicle emission reduction programs are in place and projected to create significant reductions in DPM emissions, and corresponding health impacts, in the region. Current MDAQMD healthbased regulations also ensure that new sources of air pollutants are not introduced that will create significant health impacts. Combined, these factors will ensure that the Project's potential net health impact will not be cumulatively considerable.	public health impact is expected. Therefore, no TAC emissions mitigation beyond that proposed for air quality is needed to protect public health. • The VV2 Project owner shall develop and implement a drift eliminator inspection and maintenance program. Following installation, proper maintenance includes periodic inspection and repair or replacement of any components found to be broken or missing. • The VV2 Project owner shall develop and implement a Cooling Tower Monitoring Program in accordance with the CEC Cooling Water Management Program Guidelines (May, 2004). The Program will be documented and submitted to the CEC for review and approval prior to commencement of cooling tower operation. The plan will contain the following components: o Selection of Biocide – Description of the biocide(s) selected and the reasons for their selection. o Biocide Control Ranges – Description of how the biocide is to be administered (continuous or intermittent feed, level of residual concentrations, etc.) o Microbial Testing – Document the microbial testing protocol to be used, including a detailed description of the Legionella monitoring. o Upsets – Description of how the system will be returned to normal microbial control following an upset.	

Environmental Topic	Impact(s)	Mitigation	Conclusion
		o Cooling Tower Shutdown, Startup, and Maintenance – Description of cooling tower shutdown, startup, and maintenance procedures. o Record Keeping – Description of documents relating to maintaining the microbiological control program.	
Biological Resources –	**PROJECT SPECIFIC:** The biological resources evaluation of the Project involved both literature research and a variety of field surveys. These included general vegetation and wildlife surveys as well as protocol-level surveys for a number of special status wildlife species (i.e., the Mojave ground squirrel, burrowing owl, and desert tortoise) and special status plants. The surveys found individuals of two special-status animal species: the desert tortoise, a Federal and State listed threatened species, and the burrowing owl, a Federal and State species of concern. However, no Mojave ground squirrels were found. The rare plant survey conducted found a number of special status plant species onsite; these included: Joshua tree, silver cholla, pencil cholla, and beavertail cactus. The Project site is dominated by native Mojave creosote bush scrub vegetation community. Other vegetation communities present within portions of the site include Mojavean juniper woodland and scrub, desert saltbush scrub, non-native grassland, and rabbit brush scrub. Additionally, 55 ephemeral drainages determined to be Federal and State jurisdictional waters are located within the proposed Project transmission line route. A literature review of biological resources in the vicinity of the Project site identified the reported occurrence of 49 special status species in the vicinity of the Project site. There is a low potential for several of these species to occur within limited areas of the site, including the small-flowered androstephium, Booth's evening primrose, sagebrush loeflingia, Mojave monkeyflower, southwestern pond turtle, Mojave River vole, San Diego coast horned lizard, and San Emigdio blue butterfly. Additionally, designated critical habitat for the southwestern willow flycatcher are situated adjacent to portions of the Project transmission line, and designated critical habitat for the desert tortoise occur approximately three miles north of the power plant site. Habitat compensation-based mitigation approaches will ensure that impacts of the VV2 Project on biological resources will be less than significant.	• Habitat compensation-based mitigation will involve replacement of lost habitat (i.e., Mojave scrub and annual grasslands) by acquisition and conservation of equivalent habitat at different locations. Compensatory mitigation acreage requirements will be determined through discussions with the U.S. Fish and Wildlife Service (USFWS) and/or the California Department of Fish and Game (CDFG) depending on the species whose habitats are affected. If the Project were to impact Federal jurisdictional waters and mitigation were needed, the acreage needed would be worked out with the U.S. Army Corps of Engineers (USACE). • Mitigation of impacts to Joshua trees and native cacti would require relocation of individuals offsite or onsite within either habitat restoration areas or facility landscaping. Mitigation of impacts to nesting and migratory birds would require conducting at least one pre-construction survey for nesting birds and implementation of avoidance measures if nesting birds are identified. Additionally, Project construction adjacent to the Mojave River would be scheduled to avoid the nesting season and biological monitors	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	CUMULATIVE: The VV2 Project will contribute to the ongoing conversion of land areas from undeveloped to developed and thus reduce the amount of available habitat for a number of special status species including the desert tortoise, Mohave ground squirrel, and burrowing owl. However, loss of habitat for these species will be mitigated by the requirement for the Project to provide suitable habitat for these species offsite to compensate for the loss of habitat at the Project site. Providing compensation in the form of permanently protected offsite mitigation acreage, combined with other mitigation measures to minimize the effects of Project activities on biological resources, will reduce the Project's potential cumulative biological impacts to a level that is less than significant.	would be present to further ensure that impacts to migratory and/or nesting birds do not result. Mitigation for additional special status species with a low potential to occur onsite require pre-construction surveys and construction monitoring	
Cultural Resources and Paleontology	**PROJECT SPECIFIC:** A records search, review of previous investigations in the Project area and systematic pedestrian surveys performed for the VV2 Project identified no significant cultural resources at the Project site or along the Project's linear facilities. Project implementation would have no significant impacts on any known cultural resources. Buried cultural materials can remain undetected until they are discovered during construction, although the lack of evidence of potentially significant resources makes this unlikely for the VV2 Project. In the event that unexpected cultural resources are encountered, Project construction activities will be halted in the immediate vicinity of the find so its significance can be evaluated by the Project's designated cultural resources specialist and appropriate measures taken to mitigate potential adverse impacts to a significant find. **CUMULATIVE:** Because the VV2 Project will not affect known significant cultural resources (i.e., no significant impacts), it is not expected to cause or contribute to significant cumulative impacts.	Although significant archaeological and historic archaeological sites were not found during the Project field surveys, it is possible that subsurface construction could encounter buried cultural resources. For this reason, the measures listed below will be implemented to mitigate potential adverse impacts that could occur if there were an inadvertent discovery of buried materials. • The project proponent will retain a designated cultural resources specialist (CRS) who will be available during the entire construction period to inspect and evaluate any finds of buried archaeological or historically significant resources that might occur during construction. If there is a discovery of archaeological remains during construction, the CRS, in conjunction with the construction superintendent and environmental compliance manager, will make certain that all construction activity stops in the immediate vicinity of the find until the find can be evaluated. The CRS will inspect the find and	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
		evaluate its potential significance, in consultation with CEC staff and the CEC compliance project manager (CPM). The CRS will make a recommendation as to the significance of the find and any measures that would mitigate adverse impacts of construction on a significant find. • The project proponent will prepare a construction worker sensitivity training program to ensure implementation of procedures to follow in the event that cultural or historically significant resources are discovered during construction. This training will be provided to each construction worker as part of their environmental, health, and safety training. • If construction staff or others identify archaeological or historically significant resources during construction, they will immediately notify the CRS and the site superintendent, who will halt construction in the immediate vicinity of the find, if necessary. The CRS will use flagging tape, rope, or some other means as necessary to delineate the area of the find within which construction will halt. This area will include the excavation trench from which the archaeological finds came as well as any piles of dirt or rock spoil from that area. Construction will not take place within the delineated find area until the CRS, in consultation with the CEC staff and CEC CPM, can inspect and evaluate the find. • The CRS will follow accepted professional standards in recording	

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		any cultural resources find and will submit the standard Department of Recreation historic site form (Form DPR 523) and locational information to the State Clearinghouse. • If the CRS determines that the find is not significant, and the CEC CPM concurs, construction will proceed without further delay. If the CRS determines that further information is needed to determine whether the find is significant, the designated CRS will prepare a plan and a timetable for evaluating the find, in consultation with CEC. • If the CRS, CEC cultural resources staff, and CPM determine that a cultural resources find is significant, the CRS will prepare and carry out a mitigation plan in accordance with State guidelines. The plan will be submitted for CPM approval and will emphasize the avoidance, if possible, of significant archaeological resources. If avoidance is not possible, in order to mitigate damage or destruction of cultural materials, a data recovery program will be developed to ensure recovery of information sufficient to address archaeological or historically significant research questions. • The mitigation program, if necessary, will be carried out as soon as possible to avoid construction delays. Construction will resume at the site as soon as the field data collection phase of any data recovery efforts is completed. The CRS will verify the completion of field data collection by letter to the Project owner and the CPM so that the owner and CPM can	

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		authorize resuming construction. • The CRS will arrange for curation of archaeological or historically significant materials collected during an archaeological data recovery mitigation program. • If a data recovery program is planned and implemented during construction, the CRS will prepare a detailed scientific report summarizing results of the excavations to recover data from an archaeological or historically significant site as a mitigation measure. This report will be submitted to the curation facility with the collection. • If human remains are found during construction, project officials are required by the California Health and Safety Code (Section 7050.5) to contact the County Coroner. If the Coroner determines that the find is Native American, he/she must contact NAHC. The NAHC, as required by the Public Resources Code (Section 5097.98) determines and notifies the Most Likely Descendant with a request to inspect the burial and make recommendations for treatment or disposal.	
Geology	**PROJECT SPECIFIC:** The VV2 Project will not have significant adverse impacts on geologic hazards or resources. No major unique geologic or physical features have been identified in the Project areas. The facilities will be designed in conformance with Uniform Building Code (UBC) criteria for Seismic Zone 4. No faults have been identified with ground rupture potential at the Project site and no impacts resulting from fault rupture are anticipated. Due to the depth of groundwater at the Project site (150 feet or more), liquefaction is not expected to occur. No evidence of ground subsidence due to groundwater extraction has been noted at the plant site or along the linear facilities routes. The Project will not utilize significant groundwater resources and the potential for	Geologic impacts associated with the construction and operation of the VV2 Project are expected to be less than significant. The following mitigation measures are proposed to ensure that impacts are less than significant. • Power plant structures and equipment as well as Project offsite linear facilities (natural gas, reclaimed water supply and sanitary wastewater pipelines; transmission lines) will be	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	settlement due to groundwater extraction is considered minimal. Soils at the plant site and along the linear facilities routes show a low to moderate collapse potential. To ensure that collapse potential is minimized, all foundations for Project facilities will be designed in accordance with Project geotechnical investigations, including over-excavation and re-compaction where necessary. The Project will not adversely affect known geologic resources (e.g., minerals) of recreational, commercial, or scientific value. **CUMULATIVE:** The VV2 Project will be designed and constructed to meet UBC/CBC requirements for industrial facilities located in Seismic Zone 4 and will adhere to sound professional practices and appropriate regulatory requirements related to geologic hazards (e.g., grading, slope stability). For these reasons, the Project is expected to have no significant impacts on geologic hazards or resources. Other projects in the same vicinity also would be expected to adhere to the appropriate professional standards and regulatory requirements. As such, the VV2 Project would not be expected to contribute to significant cumulative effects on geologic resources and hazards during either construction or operation.	designed in accordance with Seismic Zone 4 requirements. • Project foundations will be designed in accordance with recommendations (e.g., overexcavation and recompaction beneath Project structures and paved areas) provided in the Project's preliminary geotechnical report (AFC Appendix C), as amended by future geotechnical investigations, with respect to collapsible soil conditions at the Project site and along linear facilities routes.	
Hazards and Hazardous Materials - Construction	**PROJECT SPECIFIC:** The VV2 Project will be designed and constructed to ensure the safe use and storage of hazardous materials. Accident prevention and mitigation measures will be implemented, including risk management plans, hazards assessments, process management systems, release prevention and emergency response programs, employee training, and adherence to sound professional design standards and operating procedures. **CUMULATIVE:** Facility design and hazardous materials handling programs developed and implemented for the VV2 Project will reduce the project's potential impacts to below significance levels. Other cumulative projects would be required to comply independently with hazardous materials regulations depending on their specific circumstances (e.g., nature and quantities of hazardous materials stored and used). Thus VV2 Project construction activities will not cause or contribute substantially to significant cumulative impacts with respect to hazardous materials handling.	• During construction, hazardous materials stored onsite will be limited to small quantities of paint, coatings and adhesive materials, and emergency refueling containers. These materials will be stored in their original containers inside a flammable materials cabinet. Fuels, lubricants, and various other liquids needed for operation of construction equipment will be transported to the construction site on an as-needed basis by equipment service trucks. • An onsite safety officer will be designated to implement health and safety guidelines and, if necessary, contact emergency response personnel and local hospitals. Material Safety Data Sheets (MSDS) for each onsite chemical will be maintained. Employees will be made aware of the chemicals and the location of MSDS sheets.	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
		• Project construction contractors will be required to develop standard operating procedures for servicing and fueling construction equipment. These procedures will, at a minimum, include the following: o No smoking, open flames or welding will be allowed in fueling/service areas. o Servicing and fueling of vehicles and equipment will occur only in designated areas. These areas will be bermed, covered with concrete, or fashioned in some other manner to control potential spills. o Fueling, service and maintenance will be conducted only by authorized, trained personnel. o Refueling will be conducted only with approved pumps, hoses, and nozzles. o All disconnected hoses will be handled in a manner to prevent residual fuel and liquids from being released into the environment. o Drip pans will be placed under equipment to collect small drips and minimize potential spills during servicing. o Service trucks will be equipped with fire extinguishers, personal protective equipment, and spill containment equipment, such as absorbents. o Service trucks will not remain on the job site after fueling and service are complete. o Spills that occur during vehicle maintenance will be cleaned up immediately and contaminated soil will be containerized and managed	

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		as a hazardous waste, if appropriate. A log of spills and clean-up actions will be maintained. o Emergency phone numbers will be available onsite. o All containers used to store hazardous materials will be properly labeled and kept in good condition.	
Hazards and Hazardous Materials – Operation	**PROJECT SPECIFIC:** The VV2 Project will be operated and maintained to ensure the safe use and storage of hazardous materials. Accident prevention and mitigation measures will be implemented, including risk management plans, hazards assessments, process management systems, release prevention and emergency response programs, employee training, and adherence to sound professional design standards and operating procedures. Hazardous materials that will be used and stored onsite during operations include aqueous ammonia for the SCR system used to control NOx emissions and the heat transfer fluid (HTF) used in the solar component of the Project, as well as various water treatment and cleaning chemicals, and hydrogen for generator cooling. Analysis of potential accidental releases of hazardous materials shows that the Project will not pose significant risks to areas outside the boundaries of the Project site. With implementation of planned mitigation measures, the VV2 Project's hazardous materials-related impacts will be less than significant. **CUMULATIVE:** Facility design and hazardous materials handling programs developed and implemented for the VV2 Project will reduce the project's potential impacts to below significance levels. Other cumulative projects would be required to comply independently with hazardous materials regulations depending on their specific circumstances (e.g., nature and quantities of hazardous materials stored and used). Thus VV2 Project operation activities will not cause or contribute substantially to significant cumulative impacts with respect to hazardous materials handling.	• Concrete spill containment berms or dikes will be constructed surrounding each of the bulk chemical storage tanks, including aqueous ammonia, sulfuric acid, sodium hydroxide, sodium hypochlorite, and scale inhibitors. • Ammonia tank trucks will be unloaded in a tank truck unloading area paved with concrete and with sump capacity to provide secondary containment for the entire contents of the tank truck plus additional volume to account for precipitation. • A fire protection system will be provided to detect, alarm, and suppress a fire, in accordance with the applicable LORS. • Construction of the aqueous ammonia storage system will be in accordance with applicable LORS. The aqueous ammonia storage and handling facility will be equipped with the following safety features: o Carbon steel tank equipped with continuous tank level monitors, temperature gage, and pressure monitor. Safety alarms will also be provided on each monitoring system. o •Pressure relief valves and excess flow control valves on tank and fill	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
		connections. • A RMP for aqueous ammonia storage and use at the facility will be prepared before the initial filling of the ammonia tank. The RMP will include a hazard analysis, offsite consequence analysis, seismic assessment, emergency response plan, and training procedures. The RMP process will identify and propose adequate mitigation measures to reduce the risk to the lowest possible level. • Hazardous materials will be stored and handled in accordance with all local, State and Federal regulations and codes. A safety program will be implemented including safety training programs for contractors and operations personnel. A HMBP will be prepared for submittal to the City of Victorville Fire Department. • All areas subject to potential leaks of hazardous materials will be paved and bermed. Incompatible materials will be stored in separate containment areas.	
Land Use and Planning	**PROJECT SPECIFIC:** The VV2 Project site is zoned and planned for industrial use under the City of Victorville General Plan and SCLA Specific Plan. Land uses along Segment 1 of the transmission line route and the various Project pipeline routes are currently undeveloped, but are designated as industrial. Thus, Project facilities represent a change in land use from undeveloped, but also represent implementation of the planned industrial use. Project Transmission line Segments 2 and 3 utilize existing SCE transmission line ROWs that currently contain transmission lines, and thus there will be no change in land use. Because the Project is consistent with current zoning and designated/planned land uses, no significant adverse land use impacts are expected. The Project site is adjacent to vacant lands still nominally considered rural residential by the City of Victorville (to the east of the site) and San	The project will not result in significant adverse land use impacts and will not conflict with existing land use activities in the area. Therefore, mitigation measures are not required.	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	Bernardino County (north of the site). However, it is considered unlikely that these areas would be proposed (or approved) for residential use. This is because of the topography of the City area immediately east of the site (bluffs and slopes leading to the Mojave River), and because of the proximity of these City and County areas to the airport (SCLA). More likely, as the planned SCLA development as a major regional cargo distribution center proceeds, the areas to the north of the Project site outside the SCLA Specific Plan Area will be proposed for industrial/commercial uses consistent with other developments at and near SCLA. **CUMULATIVE:** The team developing the VV2 Project for the City of Victorville is coordinating its efforts with VVWRA and SCLA management to ensure that the interests and needs of the development plans and projects of all parties are taken into account. The VVWRA expansion, SCLA development projects, and the VV2 Project represent substantial changes in land use from the present (i.e., undeveloped to developed). However, because they represent the implementation of planned uses, these changes are not considered significant adverse land use impacts, and the Project's cumulative land use impacts are considered less than significant.		
Noise - Construction	**PROJECT SPECIFIC:** The nearest noise-sensitive land use (residence, school, church, hospital, etc.) in the vicinity of the VV2 Project site is a single residence approximately one mile to the east of the site on Colusa Road. No other noise-sensitive uses are within the area potentially affected by Project noise emissions. Noise from Project construction activities would be short-term and also would not adversely affect noise-sensitive land uses. Project noise impacts will be less than significant **CUMULATIVE:** The cumulative noise impacts associated with the VV2 Project were evaluated. The noise from the VV2 facility and noise from SCLA aviation activities will add logarithmically, increasing the noise levels for the area between the Project site and the flight paths. However, there are no residential areas or other noise-sensitive land uses between the VV2 plant site and the airport flight track. Other cumulative projects that may be developed near the VV2 site at SCLA and/or within the SCLA planning area will be industrial in nature, based on the land uses identified in SCLA Specific Plan. No significant cumulative noise impacts are expected for VV2 Project operation.	• Conduct construction activities involving the use of heavy equipment during daytime hours and limit construction activities during evening, nighttime, and weekend periods to relatively quiet activities such as welding, interior installation of equipment, cabling, and instrumentation. • During both construction and operation, maintain all equipment noise control equipment in good working order in accordance with manufacturers' specifications. • During both construction and operation, post warning signs in high noise areas and implement hearing protection program for work areas where noise levels exceed 85 dBA. • During both construction and operation, investigate, document, evaluate, and attempt to resolve	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
		legitimate Project-related noise complaints. This would involve: using CEC-suggested Noise Complaint Resolution Form or a functionally equivalent procedure, attempting to contact within 24 hours the source (person or persons) of the noise complaint, investigating to determine the Project noise source(s) that led to the complaint, and taking all feasible measures to reduce the noise at the source if the complaint is legitimate. • Incorporate into the final design/procurement of Project facilities and equipment noise attenuation measures that ensure compliance with the noise emission.	
Noise - Operation	**PROJECT SPECIFIC:** The nearest noise-sensitive land use (residence, school, church, hospital, etc.) in the vicinity of the VV2 Project site is a single residence approximately one mile to the east of the site on Colusa Road. No other noise-sensitive uses are within the area potentially affected by Project noise emissions. With the noise attenuation measures incorporated into the Project design, the modeled noise level (Leq) at the one nearby residence would be 39 dBA, less than the nighttime (10 pm to 7 am) noise limits for residential properties of the City of Victorville (60 dBA Leq) and San Bernardino County (45 dBA Leq). Thus, Project operation would not cause significant adverse noise impacts. Project noise impacts will be less than significant **CUMULATIVE:** The cumulative noise impacts associated with the VV2 Project were evaluated. The noise from the VV2 facility and noise from SCLA aviation activities will add logarithmically, increasing the noise levels for the area between the Project site and the flight paths. However, there are no residential areas or other noise-sensitive land uses between the VV2 plant site and the airport flight track. Other cumulative projects that may be developed near the VV2 site at SCLA and/or within the SCLA planning area will be industrial in nature, based on the land uses identified in SCLA Specific Plan. No significant cumulative noise impacts are expected for VV2 Project operation	• During both construction and operation, maintain all equipment noise control equipment in good working order in accordance with manufacturers' specifications. • During both construction and operation, post warning signs in high noise areas and implement hearing protection program for work areas where noise levels exceed 85 dBA. • During both construction and operation, investigate, document, evaluate, and attempt to resolve legitimate Project-related noise complaints. This would involve: using CEC-suggested Noise Complaint Resolution Form or a functionally equivalent procedure, attempting to contact within 24 hours the source (person or persons) of the noise complaint, investigating to determine the Project noise source(s) that led to the complaint, and taking all feasible measures to reduce the noise at the	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
		source if the complaint is legitimate. • Incorporate into the final design/procurement of Project facilities and equipment noise attenuation measures that ensure compliance with the noise emission.	
Paleontological Resources - Construction	**PROJECT SPECIFIC:** A comprehensive paleontological records search and literature review indicated that no previously recorded fossil localities exist within the Project boundaries, but that various fossil vertebrate species have been recovered within the Victorville area and from the same sedimentary units that underlie the Project area. No fossils were observed on the surface during the Project paleontological field survey conducted; but the records/literature research indicate that geologic units underlying the VV2 Project plant site and linear facilities include areas with high paleontological sensitivity as well as areas with low sensitivity. In general, the eastern areas of the plant site are of high sensitivity, while the western areas are of low sensitivity. The linear routes are a mixture of high and low sensitivity depending on the underlying geology. With implementation of the planned mitigation, paleontological resources impacts will be less than significant. **CUMULATIVE:** VV2 and other projects planned in the Project vicinity must comply with applicable regulatory requirements (Federal, State, City of Victorville, County of San Bernardino, etc.) requirements to evaluate the potential for paleontological resources impacts and to take appropriate measures to protect and preserve identified resources. Each project will comply with these requirements independently. Thus, the VV2 Project will not cause or contribute to significant cumulative impacts on paleontological resources.	• Prior to the start of any project related construction (defined as construction related vegetation clearing, ground disturbance and preparation, and site excavation activities), the project owner will ensure that the designed paleontological resource specialist approved by the CEC Compliance Project Manager (CPM) is available for field activities and prepared to implement the conditions of certification. The designated paleontological resource specialist will be responsible for implementing all the paleontological conditions of certification and for using qualified personnel to assist in this work. • Full-time paleontological monitoring is planned where Project construction (plant site or linear facilities) would require excavations deeper than three feet at locations where the underlying geologic formations are mapped as Qo (older alluvium) and Qod (alluvial fan deposits). • Prior to the start of construction, a Paleontological Resource Monitoring and Mitigation Plan drafted by the designated paleontological resource specialist will be submitted to the CEC CPM for approval. The project paleontological resource specialist will implement the Paleontological Resource Monitoring and Mitigation Plan as needed.	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
		• Part-time monitoring (spot checking at frequencies to be determined based on location-specific conditions) will occur in areas identified as (Q) alluvium and Qw (wash deposits). • The project owner, through the designated paleontological resource specialist, will ensure recovery, preparation for analysis, analysis, identification and inventory, the preparation for curation, and the delivery for curation of all significant paleontological resource materials encountered and collected during the monitoring, data recovery, mapping, and mitigation activities related to the project. • The project owner will ensure preparation of a Paleontological Resources Report by the designated paleontological resource specialist following the analysis of the recovered fossil materials and related information. The Paleontological Resources Report will be submitted to the CPM for approval.	
Population/Housing and Public Services (Socioeconomic)	**PROJECT SPECIFIC:** VV2 Project construction and operation will have less than significant socioeconomic impacts. Minimal immigration to the Victorville area of construction workers and dependents is expected during construction because of the large construction work force available in southern California. Thus, there would be minimal population growth that could adversely affect local schools, law enforcement, fire, emergency, medical, or utility services. The Project's small operations work force (36 workers) will not cause population growth that could adversely affect local services. Project construction and operation will have a positive fiscal impact (sales tax and property tax revenues) on local jurisdictions, as well as positive effects in terms of short-term construction job opportunities, construction and operations phase payrolls, and purchases of materials and supplies from local businesses. The Project is not expected to have adverse environmental justice impacts. Disproportionate impacts on minority or low-income populations are not	No significant impacts on socioeconomic conditions were identified, and therefore, no mitigation measures are proposed.	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	expected because the Project is located in an industrial area away from residential population. The site is nearly five miles from a census tract with a minority population exceeding 50 percent and more than six miles from a low-income census tract. Project linear features also would not disproportionately affect low-income or minority populations. Segment 1 of the Project's transmission line route and its pipelines are in an area planned for industrial use, i.e., there are no residential neighborhoods in the immediate vicinity. Transmission line Segments 2 and 3 utilize an existing ROW that already contains transmission facilities, and thus there would be no substantial impacts, much less impacts that disproportionately affect poverty or minority populations. **CUMULATIVE:** There are other industrial construction projects planned in the VV2 Project vicinity, primarily those associated with ongoing and planned development activities at SCLA, including a major Intermodal rail project and related industrial and commercial developments, as well as airport-related development activities. There also is ongoing residential and related growth in Victorville, Adelanto, and other nearby areas. However, construction activities in the Victor Valley are expected to draw on the large regional construction work force in the overall southern California area, and VV2 Project construction is not expected to lead to more than minimal population immigration (construction workers and families). Also, the Project will contribute positively to the local economy, e.g., through increased property and sales tax revenues. Thus, the VV2 Project would not be expected to contribute substantially to significant adverse cumulative socioeconomic impacts during Project construction. Project operations would be expected to result in no significant cumulative socioeconomic impacts. The permanent facility work force would be small (36 employees) and minimal population immigration would be expected. As the VV2 Project is planned for an area zoned and planned for industrial uses with minimal residential population (see Section 6.8, Land Use), the cumulative environmental justice impacts of the VV2 Project together with other industrial development planned at/near SCLA would be less than significant.		
Public Services (Transmission Line Safety and Nuisance)	**PROJECT SPECIFIC:** The electrical effects of high-voltage transmission lines fall into two broad categories: corona effects and field effects. Corona is the ionization of the air that occurs at the surface of the energized conductor and attachment hardware due to very high electric field strength during certain conditions. Field effects are the voltages and currents that may be induced in nearby conducting objects and stem from a transmission line's inherent electric and magnetic fields (EMF). Analysis performed for the VV2 Project showed that Project construction	No mitigation proposed.	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	and operations, including its interconnection with SCE's transmission system, are not expected to result in significant increases in EMF levels or audible noise. Because the Project transmission system will conform with applicable California Public Utilities Commission (CPUC) and other regulatory requirements, induced current and voltage are unlikely to lead to hazardous electrical shocks during construction or operations. Corona caused by power lines can cause interference with radio and television reception. The VV2 Project line will be designed to minimize corona effects by proper selection of the conductor and associated hardware. Project design and construction will adhere to standards and procedures that minimize the likelihood of interference with aircraft communications or avionics and no impacts are expected to aviation safety. **CUMULATIVE:** No cumulative analysis was provided.		
Traffic Impacts - Construction	**PROJECT SPECIFIC:** Peak Project construction will involve a work force of approximately 767 workers whose commuting vehicles will increase traffic volumes on local roadways. However, this increase will be temporary. Also, analysis showed that impacts would be dispersed over a number of routes such that they would not cause a degradation of existing peak hour level of service (LOS) and would not have significant impacts on existing roadway operations. All roadways except National Trails Highway are forecast to continue operating at their existing without-Project LOS during peak VV2 Project construction National Trails Highway is forecast to experience a limited degradation in LOS assuming Year 2009 conditions (from LOS C to LOS D), but would still continue to operate acceptably. **CUMULATIVE:** The year 2009 peak hour traffic forecasts for major roadways in the VV2 Project vicinity assume continued development on the SCLA site, including the construction of the proposed Intermodal rail facility. The SCLA Specific Plan includes a roadway network designed to accommodate future traffic as the SCLA area continues to develop and traffic volumes continue to grow. The Specific Plan indicates upgrading many roadways including Air Expressway to four/six lane Super Arterial status, Phantom Street East to Super Arterial status, and Phantom Street West to arterial status (City of Victorville, 2005). Completion of these roadway improvements is designed to allow the roadway network to accommodate anticipated growth acceptably. In addition, as provided in the SCLA Specific Plan, improvements to I-15 and SR 18 will occur as needed to provide acceptable levels of service per San Bernardino County CMP standards. One specific improvement project for SR18 (the High Desert	• Develop and implement a construction phase Traffic Management Plan (TMP) in consultation with the City of Victorville for the roadway network potentially affected by construction activities at the plant site and offsite linear facilities. As needed, the TMP will address issues such as the timing of deliveries of heavy equipment and materials, possible street or lane closures, detours of construction traffic with a flagman, use of signage and traffic control devices, ensuring access for emergency vehicles to the Project site, etc. • Conduct construction activities in accordance with Caltrans and other applicable limitations on vehicle sizes and weights, Construction Excavation Permits obtained from the City of Victorville, Encroachment Permits from Caltrans, as well as permits and licenses from the California Highway Patrol and Caltrans for the transport of hazardous substances.	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	Corridor project), will commence construction after VV2 Project operations begin. Year 2009 traffic forecasts for SCLA combined with traffic volumes generated by VV2 Project construction will not have a significant adverse impact on traffic conditions. With the minor exception of one-time deliveries of heavy equipment to the site, the VV2 Project is not expected to utilize rail services, the Project also will not utilize air transport, and, as discussed above, will have less than significant effects on local air traffic. Cumulative projects in the area (SCLA expansion and the Intermodal rail project) represent improvements in local air and rail transportation service. In summary, the VV2 Project will not have cumulatively considerable impacts on other transportation modes (rail, air, etc.).		
Traffic Impacts - Operation	**PROJECT SPECIFIC:** Long-term traffic associated with VV2 Project operations would include the small operations workforce (36 people), as well as delivery of materials and hauling of wastes generated during Project operations. These activities will involve very small traffic volumes and result in minimal traffic impacts. Compliance with applicable regulations related to hazardous material transport will ensure no significant adverse impacts from this particular activity. Analysis of visible plumes from the Project HRSG stacks and cooling tower, as well as of turbulence from the HRSG stacks, and potential glare from the solar mirror collection array indicate that no significant impacts are expected on aviation operations at SCLA. **CUMULATIVE:** The minimal traffic volumes associated with VV2 Project operations will have negligible effect on vehicular traffic. Thus, the VV2 Project is not expected to have cumulatively considerable effects on vehicular traffic conditions	No mitigation proposed.	Less than significant.
Visual Resources-Construction	**PROJECT SPECIFIC:** During the Project construction period, construction activities and construction materials, equipment, trucks, and parked vehicles, all potentially may be visible on the Project site, laydown areas, and along linear facility routes. Construction activities will be conducted in a manner that minimizes (visible) dust emissions. The construction activities at the Project site, the activities in the laydown areas, and the activities along the linear routes near the plant site (pipelines, and Segment 1 of the transmission line) will not contrast significantly with the existing industrial character of the area. Construction activities within the existing ROWs of Segments 2 and 3 of the transmission line will also not contrast significantly with maintenance and other operational activities that occur periodically in these ROWs. However, transmission line construction	No significant visual impacts would result from construction and operation of the proposed VV2 Project. Therefore, no mitigation measures are proposed. Compliance with the applicable LORS, including applicable provisions of the City of Victorville General Plan and Zoning Ordinance, (e.g., provisions related to screening and project appearance, as well as land use compatibility considerations), will help ensure that Project visual resources	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	activities will introduce additional vehicles, materials, and equipment into the view from nearby areas for a short duration. In summary, visual changes associated with construction period activities at both the plant site and along linears routes will be minor and temporary, and thus impacts are considered less than significant. **CUMULATIVE:** Development of the cumulative projects (including overall SCLA expansion and the Intermodal project) will increase the industrial character of the area with a corresponding urbanization of the area's visual environment. The VV2 Project will fit within the planned urbanization of the area as contemplated in the SCLA Specific Plan. Because the VV2 Project would not itself create or contribute substantially to significant impacts on visual resources, the VV2 Project would not result in significant cumulative impacts on visual resources.	impacts are less than significant.	
Visual Resources- - Operation	**PROJECT SPECIFIC:** The VV2 Project is expected to have less than significant impacts on visual resources. Perimeter landscaping and the existing topography (as well as topographic changes caused by site grading that will reduce visibility of plant site structures from areas east of the site across the Mojave River) will partially screen the site from the two selected Key Observation Points (KOPs 1 and 2) along the National Trails Highway. The neutral color and non-reflective surface of the Project structures, stacks and transmission line structures will reduce their visual contrast with their surroundings and help them to be absorbed into the overall view. Project lighting will be designed to minimize visual intrusiveness in nearby areas during nighttime hours, while maintaining sufficient lighting to meet safety and security needs. The effects of the VV2 Project on the overall character of the views from KOPs 1 and 2 are considered moderate and the general level of visual quality of the views will not change significantly. A third KOP (KOP-3) is located at the nearest residence to the site, a horse ranch along Colusa Road a approximately one mile west of the Project. Existing vegetation and landscaping vegetation around the Project site perimeter will partially screen the site from KOP 3. As with the other KOPs, the neutral color and non-reflective surface of the Project stacks will reduce their visual contrast with their surroundings and help them to be absorbed into the overall view. Due to their location on the opposite side of the Project site, Project transmission facilities would be minimally visible from this KOP. Therefore, the effect of the VV2 on the overall character of the view is expected to be moderate and the general level of visual quality of the view from KOP-3 would not change significantly. Visible vapor plumes from the Project will occur mainly at night or during periods of precipitation. For visible plumes that occur during the day, they	No significant visual impacts would result from construction and operation of the proposed VV2 Project. Therefore, no mitigation measures are proposed. Compliance with the applicable LORS, including applicable provisions of the City of Victorville General Plan and Zoning Ordinance, (e.g., provisions related to screening and project appearance, as well as land use compatibility considerations), will help ensure that Project visual resources impacts are less than significant.	Less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
	will tend to be relatively small in dimensions and will tend to occur in the early morning or late afternoon when temperatures are lower and humidity is higher. Consequently, visible plumes are not expected to substantially degrade the existing visual character or quality of the site and its surroundings. Due to the existing industrial development in the majority of views, the design of transmission structures and conductors, and route/pole location (route selection and placement of individual Project transmission structures are explicitly intended to be below ridge lines as much as possible in order to minimize visual intrusiveness), the Project transmission lines in Segment 1 are not expected to substantially degrade existing visual quality. The Project transmission system in Segments 2 and 3 represent a small visual change from the existing transmission structures in the ROW that will be used by the VV2 Project and impacts on the character and quality of the view from nearby areas are considered to be less than significant. **CUMULATIVE:** Development of the cumulative projects (including overall SCLA expansion and the Intermodal project) will increase the industrial character of the area with a corresponding urbanization of the area's visual environment. The VV2 Project will fit within the planned urbanization of the area as contemplated in the SCLA Specific Plan. Because the VV2 Project would not itself create or contribute substantially to significant impacts on visual resources, the VV2 Project would not result in significant cumulative impacts on visual resources.		
Waste - Construction	**PROJECT SPECIFIC:** VV2 Project construction and operations will generate non-hazardous solid and liquid wastes (e.g., sanitary wastewater, residual solids from treatment of cooling water blowdown from the ZLD system), and small quantities of hazardous waste (e.g., spent catalyst from the SCR system and used hydraulic fluids, oils and grease). Where practicable, waste materials will be recycled. Project procedures and personnel training will ensure that waste generation is minimized and that wastes generated are managed appropriately in order to prevent significant adverse impacts. Disposal of Project wastes will not significantly affect the capacity of available non-hazardous or hazardous waste disposal facilities. **CUMULATIVE:** The Class I and Class III landfills that serve the Project area have substantial remaining disposal capacities. Project waste generation volumes will be modest. Therefore, the VV2 Project's contribution to potential cumulative impacts on waste disposal facilities is expected to be less than significant.	• Contract specifications for construction of the on-site facilities (e.g., power generating facilities and on-site auxiliary facilities), and linear facilities (transmission lines, natural gas supply pipeline, reclaimed water supply, and sanitary wastewater pipeline), or any other facilities associated with the Project will include provisions that require the contractor to manage construction-generated hazardous materials and solid waste in accordance with established good housekeeping practices. In addition, the VV2 Project will require each contractor to provide a written summary of how they will appropriately handle and dispose of	Mitigated to less than significant.

Environmental Topic	Impact(s)	Mitigation	Conclusion
		construction-generated hazardous materials during and following construction. • As part of construction planning prior to the start of actual construction on Project linear facilities, the most current data associated with the George Air Force Base TCE groundwater plume that underlies portions of the Project linears routes should be obtained from the SCLA to confirm that TCE plume depth is still understood to be well below the depths of Project excavations. • Project construction planning will include consideration of the potential presence of hazardous materials or wastes (e.g., cleaning chemicals, petroleum product residues) associated with abandoned vehicles and/or abandoned structures on the VV2 plant site. Additional investigation will be performed to delineate the nature and extend of contamination, and as needed, identified hazardous materials/wastes (if present) will be managed and disposed in accordance with applicable regulations.	
Waste- Operation	**PROJECT SPECIFIC:** VV2 Project construction and operations will generate non-hazardous solid and liquid wastes (e.g., sanitary wastewater, residual solids from treatment of cooling water blowdown from the ZLD system), and small quantities of hazardous waste (e.g., spent catalyst from the SCR system and used hydraulic fluids, oils and grease). Where practicable, waste materials will be recycled. Project procedures and personnel training will ensure that waste generation is minimized and that wastes generated are managed appropriately in order to prevent significant adverse impacts. Disposal of Project wastes will not significantly affect the capacity of available non-hazardous or hazardous waste disposal facilities. **CUMULATIVE:** Project waste generation volumes will be modest. Therefore, the VV2 Project's contribution to potential cumulative impacts on waste disposal facilities is expected to be less than significant.	• A detailed Waste Management Plan and procedures to minimize hazardous and non-hazardous waste generation will be prepared prior to startup to assure proper storage, labeling, packaging, recordkeeping, manifesting, minimization, and disposal of wastes. Employees will be trained in procedures to reduce the volume of hazardous waste generated at the proposed facility. The procurement of hazardous materials will be controlled to minimize surplus	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
		materials onsite and to prevent unused materials from becoming "off specification." Non-hazardous materials will be used in lieu of hazardous materials whenever possible. Hazardous materials will be reused or recycled whenever possible. Spill control and management procedures will be included in the detailed Hazardous Waste Management Plan to be developed for the VV2 Project. The purpose of the spill control and management procedures is to avoid accidental mixing of incompatible chemicals and spills during transfer of chemicals. The design of spill control and management procedures will include the containment, collection, and treatment systems. • The VV2 Project will obtain a hazardous waste generator identification number from the DTSC and appropriate hazardous waste generator permits from the City of Victorville Fire Department. • Wastes identified as hazardous will be stored onsite for no more than 90 days (or other accumulation period as allowed by CCR Title 22 for hazardous waste generators) and will be managed in accordance with Federal and State hazardous waste generator requirements. Hazardous wastes will be stored within secondary containment in an appropriately segregated hazardous waste accumulation area. The containment area will be sized to hold a volume equal to the largest container plus an additional 10 percent to account for	

Environmental Topic	Impact(s)	Mitigation	Conclusion
		precipitation. The hazardous waste accumulation area will be visually inspected and maintained weekly. • • Hazardous wastes will be collected by a licensed hazardous waste hauler using hazardous waste manifests. Hazardous waste generator reports will be submitted biannually to DTSC. Copies of manifests, reports, waste analyses, exception reports, etc. will be kept onsite and available for inspection for at least three years. Facility employees will receive hazardous waste management training, which will include, but not limited to, the following subjects: o Hazardous waste characteristics o Use and management of containers o Waste packing o Marking and labeling o Accumulation/storage areas o Inspections o Emergency equipment o Contingency planning o Emergency response procedures o Hazardous waste manifesting o Waste minimization	
Water - Construction	**PROJECT SPECIFIC:** Water use: Reclaimed water from the VVWRA will be used for dust suppression. The water will be trucked to the VV2 site from the VVWRA plant until completion of construction of the Project's reclaimed water supply pipeline from the treatment plant. During grading of the combined-cycle area of the site, the daily maximum water demand is expected to be 65,000 gallons per day (gpd); during grading of the much larger solar field area, which will occur immediately after site preparation for the combined-cycle area, average daily water demand is expected to be 560,000 gpd with a peak of 650,000 gpd. Outside of the grading period, average daily water demand during Project construction is expected to be approximately 58,000 gpd.	• Design the site drainage system to be in conformance with good engineering practice and with applicable regulatory requirements (including City and County requirements for Water Quality Management Plans for new development projects). • Perform Project construction activities in accordance with the SWPPP that will be developed to meet the requirements of the General NPDES	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	Bottled water will be used for drinking water purposes by Project construction personnel. Portable sanitary facilities will be used onsite during the construction phase, and thus, no water will be required for sanitary uses and no sanitary wastewater will be discharged from the site. Wastewater Discharge. Project construction activities will generate a one-time use of approximately 355,000 gallons of reclaimed water for hydrostatic testing of pipelines (90,000 gallons for the HSRG, 40,000 gallons for the plant piping and equipment, and 225,000 gallons for the solar field). The hydrostatic test water will be reused to the maximum practicable to test different Project systems, and then will be discharged through a temporary connection to the Project's sanitary wastewater disposal pipeline and sent to the VVWRA treatment plant. Equipment wash water will be discharged at designated wash areas. This wash water will be transported to the nearby VVWRA treatment plant by a vacuum truck hauler, and no significant impacts are expected. A permit for discharge to the VVWRA will be obtained prior to discharge. Drainage and Runoff: Storm water discharges during the VV2 Project construction phase will be managed in accordance with the California General Storm Water. Construction Permit issued by the SWRCB and overseen by the Lahontan RWQCB. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented for the construction phase of the VV2 Project. The construction SWPPP will identify the best management practices (BMPs), e.g., erosion and sediment controls, that will be used to prevent construction activities from causing or contributing to exceedances of applicable water quality standards in regional groundwater aquifers or in the Mojave River. No significant impacts are expected related to storm water discharges. **CUMULATIVE:** Projections by the VVWRA of the supply and demand for reclaimed water indicate that the supplies are expected to be adequate to meet the needs of the VV2 Project plus the VVWRA's other existing and expected requirements (discharge to the Mojave River, and supplying a local golf course and the HDPP), while leaving additional reclaimed water available for sale. Thus, the VV2 Project will not contribute to a significant cumulative water supply impact.	permit for Discharges of Storm Water Associated with Construction Activity. This will include implementation of the BMPs identified in the SWPPP to control erosion, sediment transport, and discharge of pollutants during construction.	
Water - Operation	**PROJECT SPECIFIC:** VV2 Project impacts on water resources will be less than significant. The Project will utilize reclaimed water for cooling	Perform operations at the power plant in accordance with the SWPPP prepared to	Mitigated to less than significant

Environmental Topic	Impact(s)	Mitigation	Conclusion
	and other industrial water uses. Adequate supplies of reclaimed water are available from the nearby VVWRA facility to supply the VV2 Project while also meeting the VVWRA's requirements for discharge of treated water to the Mojave River and supplying its other reclaimed water customers. The reclaimed water will be supplied through a new 1.5-mile pipeline from the VVWRA facility to the Project. Sanitary wastewater will be disposed through a new 1.25-mile pipeline to an existing interceptor sewer that is connected to the VVWRA facility. The Project will be a zero-discharge facility in terms of process wastewater with no potential for discharge to local waterways or water treatment facilities. The Project will obtain potable water from a new onsite well. There is a trichloroethylene (TCE) plume in the groundwater southeast of the site stemming from past activities at the former George Air Force Base and cleanup activities are ongoing as part of the Air Force's Installation Restoration Program. However, data show that the plume does not come closer than approximately 0.7 mile from the Project's southern boundary and that the TCE plume is downgradient of the Project site. Thus, the Project's groundwater well is not expected to be affected by (or to have effects on) the Air Force TCE plume. Based on available information, the VV2 Project is not expected to have significant groundwater quality impacts. Adherence to health department regulations will also ensure that water of sufficient quality is provided for drinking and domestic purposes at the Project. No significant impacts are expected related to drainage or storm water runoff issues. Implementation of Storm Water Pollution Prevention Plans (SWPPP) and Best Management Practices (BMP), including drainage and erosion control measures, will prevent impacts to surface waters during Project construction and operation. **CUMULATIVE:** Projections by the VVWRA of the supply and demand for reclaimed water indicate that the supplies are expected to be adequate to meet the needs of the VV2 Project plus the VVWRA's other existing and expected requirements (discharge to the Mojave River, and supplying a local golf course and the HDPP), while leaving additional reclaimed water available for sale. Thus, the VV2 Project will not contribute to a significant cumulative water supply impact. There is the potential for cumulative impacts on surface water quality from the VV2 Project when considered together with the SCLA Rail Service (Intermodal) project that will occur to the south of the VV2 site. However,	meet the requirements of the General NPDES Permit for Discharges of Storm Water Associated with Industrial Activity. The will include implementation of the BMPs identified in the SWPPP to control erosion, and minimize the entrainment of pollutants associated with Project operation in entering storm water discharges. Utilize reclaimed water for cooling tower makeup, process water, landscape irrigation, and the Project's other non-potable uses. Use of reclaimed water will comply with all applicable requirements of Title 22 California Code of Regulations.	

Environmental Topic	Impact(s)	Mitigation	Conclusion
	as is the case for the VV2 Project, it is assumed that the Intermodal project (and other cumulative projects) will utilize good engineering and construction practices, implement SWPPPs with BMPs and other management controls to ensure compliance with NPDES and other project-specific permit requirements. Further, both the VV2 Project and other cumulative projects (including, the Intermodal project and other SCLA expansion projects), are being developed under the aegis of the City of Victorville, and the design of the VV2 Project's drainage system, development of the needed erosion control plans, SWPPPs and other controls will be coordinated with similar activities of the Intermodal project. Furthermore, all significant new development projects in the County, such as the VV2 Project and the Intermodal project, must comply with the San Bernardino County Water Quality Management Plan requirements, which is a regional program intended to address cumulative water quality and hydrology impacts. Thus, the cumulative contribution of the VV2 Project to cumulative impacts on surface water quality is expected to be less than significant. There is the potential for cumulative impacts on surface water quality from the VV2 Project when considered together with the SCLA Rail Service (Intermodal) project that will occur to the south of the VV2 site. However, as is the case for the VV2 Project, it is assumed that the Intermodal project (and other cumulative projects) will utilize good engineering and construction practices, implement SWPPPs with BMPs and other management controls to ensure compliance with NPDES and other project-specific permit requirements. Further, both the VV2 Project and other cumulative projects (including, the Intermodal project and other SCLA expansion projects), are being developed under the aegis of the City of Victorville, and the design of the VV2 Project's drainage system, development of the needed erosion control plans, SWPPPs and other controls will be coordinated with similar activities of the Intermodal project. Furthermore, all significant new development projects in the County, such as the VV2 Project and the Intermodal project, must comply with the San Bernardino County Water Quality Management Plan requirements, which is a regional program intended to address cumulative water quality and hydrology impacts. Thus, the cumulative contribution of the VV2 Project to cumulative impacts on surface water quality is expected to be less than significant.		