1 EXECUTIVE SUMMARY

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1 EXECUTIVE SUMMARY

This section provides a brief of the proposed Hudson Ranch Power II Geothermal Project and the Simbol Calipatria Plant II (Projects or proposed Projects) and the alternatives and provides a summary of the Projects' environmental impacts and associated mitigation measures. Please refer to Chapter 4 of this Draft Environmental Impact Report (Draft EIR or DEIR) to review details regarding the Environmental Setting, Impacts, and Mitigation Measures as they pertain to each resource area.

This EIR has been prepared to evaluate the potential environmental impacts associated with implementation of the proposed Hudson Ranch Power II (HR-2) Geothermal Project and the Simbol Calipatria Plant II (SmCP-2) Project. Hudson Ranch Power II, LLC is proposing to construct and operate a 49.9 MW geothermal power plant and well field in the County of Imperial (CUP # G10-0002). Simbol Inc. is proposing to construct and operate the Simbol Calipatria Plant II (SmCP-2) (CUP# 12-0005), a commercial lithium carbonate production plant, adjacent to the HR-2 site, using geothermal brine from the HR-2 plant. Because the SmCP-2 plant would be dependent on the geothermal brine produced by the HR-2 geothermal flash plant; the SmCP-2 plant would not be constructed without the HR-2 geothermal flash plant.

The proposed Projects would be developed on 100-acres of approximately 245-acres of private land within the Salton Sea Known Geothermal Resource Area (KGRA) in the unincorporated area of the County of Imperial, California. The proposed Project sites are located approximately 2.3 miles west-southwest of the town of Niland, California. The proposed Project sites are subject to the County of Imperial General Plan and Land Use Ordinance. The County of Imperial General Plan designates the Project sites as "Agriculture," and the site is zoned "A-2-R-G" (General Agriculture/Rural/Geothermal Overlay Zone). The Hudson Ranch Power II (HR-2) geothermal flash plant facilities would cover 52-acres of land and the Simbol Calipatria Plant II (SmCP-2) facilities would cover 48-acres.

The County of Imperial is the public agency with the principal responsibility for granting approval of the proposed Projects; therefore, the County is the Lead Agency for these Projects under the California Environmental Quality Act of 1970 (CEQA), as defined in CEQA Guidelines Section 15367. The County has determined that preparation of an EIR is necessary due to the potentially significant environmental effects that could result from implementation of the proposed Projects. This EIR is intended to serve as an informational disclosure document that addresses potential environmental impacts of the proposed Projects and identifies feasible mitigation measures and alternatives that could reduce or avoid these impacts.

1.1 OBJECTIVES FOR HR-2 AND SMCP-2 PROJECTS

The following objectives have been identified for the proposed projects:

Hudson Ranch Power II (HR-2) Geothermal Flash Plant:

- Develop and operate a geothermal project utilizing the leased geothermal resource with production/injection wells/pads and related structures.
- Assist with state mandates under Assembly Bill 32 for achieving greenhouse gas (GHG) reductions.
- Support California's goal of 33 percent renewable energy delivery by 2020, as outlined in Senate Bill X1 2, signed into law by Governor Brown on April 12, 2011.

Simbol Calipatria Plant II (SMCP-2) Mineral Extraction Project:

- To produce quantities of lithium, manganese, zinc and other minerals from geothermal brine for commercial sale.
- To co-locate near a geothermal flash plant to reduce the distance required to pipe the brine between the geothermal plant and the mineral extraction plant.
- To provide a supplemental domestic source of lithium, a designated critical material identified by the U.S. Department of Energy.

1.2 HUDSON RANCH POWER II (HR-2) GEOTHERMAL PLANT PROJECT DESCRIPTION

The Salton Sea geothermal power plants rely upon steam extracted from geothermal brine brought to the plant sites through production wells strategically drilled to maximize use of the resource, without depleting or reducing the natural pressures from the field. To accomplish this, specialized facilities are needed to extract the necessary steam at appropriate pressures for turbine operation, and then return the spent brine back to the subsurface resource. The process involves conditioning the steam for turbine use, utilizing condensed and cooled water from the process for cooling, and conditioning the residual brine for reinjection to the resource at selected locations.

The HR-2 Project would accomplish these tasks utilizing the following major components, which are described in further detail below:

- Drilling and development of a geothermal wellfield.

- Stormwater retention basin, wastewater treatment plant, potable water treatment plant (four options under consideration) for on-site use only.

- Construction and operation of a geothermal flash power plant[1] consisting of a brine production facility, a turbine generator facility, control room, office, maintenance shop, supporting geothermal production and injection wells, and associated pipelines.

- Electrical connection to IID's existing 230-kV Transmission Line through an on-site substation and interconnection line.

- Well Abandonment. If it is determined that a well does not have commercial potential, it may continue to be monitored, or it may be abandoned in conformance with the well abandonment requirements of the California Division of Oil, Gas and Geothermal Resources(CDOGGR).

GEOTHERMAL WELLS

The purpose of the geothermal well drilling and testing program, previously approved by the County of Imperial under Conditional Use Permit #G11-0001, is to locate, sample, drill, complete, test and monitor potential geothermal resource development target zones to confirm the characteristics of the geothermal reservoir and determine if the geothermal resource is commercially viable. For the HR-2 Project, Hudson Ranch Power II, LLC proposes to drill and test up to eight geothermal wells, including the six wells approved under Conditional Use Permit #G11-0001 and up to two additional wells under Conditional Use Permit #G10-0002. Up to three wells would be drilled as geothermal production wells (PW 19-1, PW 19-2, and PW 19-3) from a production well pad located along the western edge of the HR-2 Project site. If needed, a fourth production well (PW-4) would be drilled on the power plant site. Up to three injection wells would be drilled from two injection well pads near the eastern edge of the HR-2 Project site for the injection of geothermal brine. A fourth injection well (IW-8) would be drilled on the northern injection well pad for the injection of geothermal steam condensate[2)] cooling tower[3] blowdown and aerated geothermal brines.

The proposed wells would be drilled from the respective well sites to explore specific geophysical or geologic targets, each to a total depth of approximately 9,000 feet (into the geothermal zone) from one of the constructed well drilling pads. After drilling, the wells would be flow-tested into portable storage tanks. Thereafter, the wells would continue to be monitored for well pressure and other data until placed into commercial service.

[1] Geothermal flash plants pull deep, high-pressure hot water into lower-pressure tanks, causing some of the fluid to rapidly vaporize, or "flash". The resulting flashed steam is then used to drive turbines.
[2] Water formed by condensation of steam.
[3] A structure in which heat is removed from hot condensate.

GEOTHERMAL POWER PLANT FACILITIES

A brine processing facility (BPF), a turbine generator facility (TGF), control room, office, maintenance shop, and other facilities would be located within the power plant site.

The Brine Processing Facility (BPF) includes the brine- and steam-handling facilities, solids-handling system, and brine and fresh water ponds. Geothermal fluid produced from the production wells would be delivered to the power plant site through aboveground pipelines to the BPF. The geothermal fluid would be flashed, or vaporized into steam, in the steam-handling facilities (flash tanks, vent tanks, and associated facilities) at successively lower pressures to produce steam that would be delivered to the turbine generating facility. The chemically stabilized brine would flow from the BPF into the solids-handling system (clarifiers, thickener, and associated facilities) where solids would be removed. Two booster and two main injection pumps would be used to pump the spent brine[4] from the secondary clarifier to the Simbol Calipatria Plant II site, via aboveground pipelines.

SITE ACCESS AND INTERNAL CIRCULATION

One new private access road would be constructed during wellfield activities to provide access to the Project site. The primary entrance to the HR-2 Project site would be from McDonald Road. The required crossing of the IID's "O" Lateral was completed as part of the McDonald Road widening. Secondary access to the plant site would be from English Road, south of the IID "O" lateral canal. The internal access roads would be constructed as all-weather roads or improved with gravel and/or maintained as needed to safely accommodate the traffic required for the well drilling activities. Roadbeds would typically be a minimum of 10 feet wide.

ELECTRICAL POWER TRANSMISSION AND INTERCONNECTION

Electrical power would be produced at the facility by the turbine/generator. The output of the generator would be connected through a generator breaker to a 230-kV main step-up transformer in the facility substation. Two options (the East Interconnect Option and the West-Interconnection Option) are proposed to connect the electrical output from the transformer of the HR-2 Project to the existing IID 230-kV transmission line system.

East-Interconnect Option: The east-interconnect option would construct a new IID interconnect station on the HR-2 plant site. This option would consist of a new overhead interconnection line of approximately 200 feet in length connecting the HR-2 transformer with a new IID 230-kV transmission line interconnect station which would be constructed adjacent to the HR-2 substation near the existing IID 230-kV transmission line.

4 "Spent brine" is defined as brine from which the heat has been removed.

East-Interconnect Option: The east-interconnect option would construct a new IID interconnect station on the HR-2 plant site. This option would consist of a new overhead interconnection line of approximately 200 feet in length connecting the HR-2 transformer with a new IID 230-kV transmission line interconnect station which would be constructed adjacent to the HR-2 substation near the existing IID 230-kV transmission line.

West-Interconnect Option: The west-interconnect option would construct a new electrical line from the HR-2 plant site to the existing IID interconnect station located 1.1 miles west at the existing HR-1 plant site. This would consist of constructing a new 230-kV transmission line on new pole structures immediately south of, and parallel to, the existing IID 230-kV transmission line and McDonald Road.

Internal electrical power for the plant would be provided from the plant steam turbine generator unit during normal plant operations and by the IID or an emergency diesel generator when the plant is shut down. The two stand-by diesel generators are used for plant start-up operations. Implementation of one of the two electrical interconnect options would coincide with plant construction.

PROJECT CONSTRUCTION

Construction of HR-2 includes well drilling, as well as plant construction activities. Well drilling is scheduled to begin as soon as all required permits and approvals are obtained. Well drilling operations would be conducted 24 hours per day, 7 days per week until the total well depth is reached. The overall construction schedule for the Project, including well drilling, electrical interconnection, site cleanup and demobilization, is approximately 28 months. Electrical interconnection would coincide with plant construction. Construction and startup of the power plant, from the start of site mobilization to commercial operation, is expected to take approximately 27 months. A peak construction work force of up to 175 construction workers is anticipated.

1.3 AREAS OF CONTROVERSY

Areas of controversy were identified through written agency and public comments received during the scoping period. Public comments received during the scoping period are provided in Appendix A. In summary, the following issues were identified during scoping and are addressed in the appropriate sections of Chapter 4:

- Impacts to air quality
- Impacts from agricultural conversion
- Impact to biological resources
- Impacts to cultural resources
- Impacts from the use of hazardous materials

- Impacts on availability of water and impacts to water quality
- Impacts on IID facilities

1.4 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the *CEQA Guidelines* requires that an EIR contain issues to be resolved, which includes the choice among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- Determine whether the EIR adequately describes the environmental impacts of the proposed project;
- Choose among alternatives;
- Determine whether the recommended mitigation measures should be adopted or modified; and
- Determine whether additional mitigation measures need to be applied to the proposed project.

1.5 SUMMARY OF HR-2 ENVIRONMENTAL IMPACTS

Table 1-1 provides a summary of the HR-2 Project's environmental impacts and associated mitigation measures that would avoid or minimize potential impacts, respectively. The table also indicates the level of significance of each environmental impact both prior to and after application of the recommended mitigation measure(s).

For a detail discussion of HR-2 Project's impacts and mitigation measures by resource area, please refer to Chapter 4.

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
4.1 Aesthetics			
Impact AES-1: The HR-2 Project would not significantly impact a scenic vista.	Less than Significant	None required	NA
Impact AES-2: The HR-2 Project would not cause substantial damage to scenic resources within a state scenic highway.	No Impact	None required	NA
Impact AES-3: The HR-2 Project would not cause substantial degradation of the existing visual character.	Less than Significant	None required	NA
Impact AES-4: The HR-2 Project would not create a substantial amount of light and glare.	Less than Significant	None required	NA
4.2 Agricultural Resources			
Impact AG-1: The HR-2 Project would convert Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to non-agricultural use.	Significant Impact	MM AG-1.1: Loss of Agricultural Land - Non-Prime Farmland MM AG-1.2: Loss of Agricultural Land - Prime Farmland MM AG-1.3: Reclamation Plan/Site Abandonment Plan	Less than Significant
Impact AG-2: The HR-2 Project would not conflict with existing zoning for agricultural use or a Williamson Act contract.	No Impact	None required	NA
Impact AG-3: The HR-2 Project would not conflict with existing zoning for or cause rezoning of forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).	No Impact	None required	NA

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact AG-4: The HR-2 Project would not result in the loss of forest land or conversion of forest land to non-forest use.	No Impact	None required	NA
Impact AG-5: The HR-2 Project does not include changes in the existing environment, which, due to its location or nature, would result in conversion of neighboring farmland to non-agricultural use.	No Impact	None required	NA
4.3 Air Quality			
Impact AQ-1: The proposed HR-2 Project would not conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	None required	NA
Impact AQ-2: Estimated construction emissions from the proposed HR-2 Project would not violate an air quality standard and/or contribute substantially to an existing or projected air quality violation.	Potentially Significant	MM AQ-2.1: NOx Controls during HR-2/SmCP-2 Concurrent Construction MM AQ-2.2: Emissions Offsets	Less than Significant
Impact AQ-3: The HR-2 Project could result in a cumulatively considerable net increase of a criteria air pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone).	Less than Significant	None required	NA
Impact AQ-4: The HR-2 Project would not expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	None required	NA
Impact AQ-5: The HR-2 Project would not create objectionable odors affecting a substantial number of people.	Less than Significant	None required	NA

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
4.4 Biological and Natural Resources			
BIO-1: Implementation of the HR-2 Project could result in the loss of individuals or essential habitat for the western burrowing owl, a California species of special concern and the American badger, a California species of special concern. It would not result in the loss of individuals or essential habitat for the desert pupfish, a federally listed and state-listed endangered species, nor would it result in a substantial loss of foraging habitat for the merlin, a California species of special concern.			
Impact BIO-1a: Western Burrowing Owl.	Potentially Significant	MM BIO 1.1-1: Avoidance of Occupied Burrows MM BIO 1.1-2: Pre-construction Surveys MM BIO 1.1-3: Preparation of a Burrowing Owl Mitigation Plan MM BIO 1.1-4: Activities During Nesting Season MM BIO 1.1-5: Passive Relocation Techniques MM BIO 1.1-6: Worker Training MM BIO 1.1-7: Mitigation Plan for Burrows	Less than Significant
Impact BIO-1b: American Badger.	Potentially Significant	MM BIO-1.3: Avoidance of American Badger Burrows	Less than Significant
Impact BIO-1c: Desert Pupfish.	No impact	None required	NA
Impact BIO-1d: Merlin.	Less than Significant	None required	NA

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact BIO-2: The HR-2 Project would not result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS.	No impact	None required	NA
Impact BIO-3: The HR-2 Project would not result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, and coastal wet lands) through direct removal, filling, hydrological interruption, or other means.	No impact	None required	NA
Impact BIO-4: The HR-2 Project would not substantially interfere with movement of any native fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.	Less than Significant	None required	NA
Impact BIO-5: The HR-2 Project would not result in a conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No impact	None required	NA
Impact BIO-6: The HR-2 Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or any adopted biological resources recovery or conservation plan of any federal or state agency.	No impact	None required	NA
4.5 Cultural and Paleontological Resources			
Impact CUL-1: The HR-2 Project would not result in a substantial adverse change in the significance of a historical resource that is either listed or eligible for listing in the National Register, the California Register or a local register of historic resources. However, the HR-2 Project could impact previously unrecorded prehistoric and historic resources.	Potentially Significant	MM CUL-1.1: Cultural Resources Construction Monitor MM CUL-1.2: Evaluate Significance of Unanticipated Discoveries MM CUL-1.3: Native American Construction Monitor MM CUL-1.4: Unanticipated Discoveries Historic Treatment Plan	Less than Significant

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact CUL-2: The HR-2 Project could result in impacts on previously unrecorded archaeological resources. If these resources meet the eligibility criteria of the California Register of Historic Places, the impact would cause a substantial adverse change in the significance of an archaeological resource.	Potentially Significant	MM CUL-1.1: Cultural Resources Construction Monitor MM CUL-1.2: Evaluate Significance of Unanticipated Discoveries MM CUL-1.3: Native American Construction Monitor MM CUL-1.4: Unanticipated Discoveries Historic Treatment Plan	Less than Significant
Impact CUL-3: The HR-2 Project could result in impacts on a unique paleontological resource or site or a unique geologic feature.	Potentially Significant	MM CUL-3.1: Paleontological Construction Monitoring	Less than Significant
Impact CUL-4: The HR-2 Project could result in impacts on human remains, including those interred outside of formal cemeteries. Ground-disturbing activities could disturb buried human remains.	Potentially Significant	MM CUL-4.1: Identification of Human Remains	Less than Significant
4.6 Geology, Soils, and Mineral Resources			
Impact GEO-1a: The HR-2 Project would not expose people or structures to substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault.	Less than Significant	None required	NA
Impact GEO-1b: The HR-2 Project would not expose people or structures to substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic groundshaking.	Less than Significant	None required.	NA
Impact GEO-1c: The HR-2 Project site could experience seismic-related ground failure, including liquefaction.	Potentially Significant	MM GEO-1.1: Liquefaction Mitigation	Less than Significant

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact GEO-1d: The HR-2 Project would not expose people or structures to substantial adverse impacts, including the risk of loss, injury, or death involving landslides.	Less than Significant	None required	NA
Impact GEO-2: HR-2 Project construction would require excavation and grading that may result in soil erosion and loss of topsoil.	Potentially Significant	MM GEO-2.1: Reduce Soil Erosion	Less than Significant
Impact GEO-3: The HR-2 Project site could be subject to instability from geothermal related subsidence.	Potentially Significant	MM GEO-3.1: Subsidence Monitoring	Less than Significant
Impact GEO-4: The HR-2 Project site contains expansive clay soils (as defined in Table 18-1-B of the Uniform Building Code [1994][5]), thereby creating substantial risks to life or property.	Potentially Significant	MM GEO-4.1: Remove/Replace Expansive Soil	Less than Significant
Impact GEO-5: The HR-2 Project would be situated on soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.	Less than Significant	None required	NA
Impact GEO-6: The HR-2 Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	Beneficial impact	None Required	NA
Impact GEO-7: The HR-2 Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	No Impact	None Required	NA
4.7 Hazards and Hazardous Materials			
Impact HAZ-1: The HR-2 Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less than Significant	None required	NA
Impact HAZ-2: The HR-2 Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less than Significant	None required	NA

[5] California Building Code.

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact HAZ-3: The HR-2 Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.	No Impact	None Required	NA
Impact HAZ-4: The HR-2 project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.	No impact	None required	NA
Impact HAZ-5: The HR-2 Project would not be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, and the Project would not result in a safety hazard for people residing or working in the Project area.	No impact	None required	NA
Impact HAZ-6: The HR-2 Project is not located within the vicinity of a private airstrip, and the Project would not result in a safety hazard for people residing or working in the Project area.	No impact	None required	NA
Impact HAZ-7: The HR-2 Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.	No impact	None required	NA
Impact HAZ-8: The HR-2 Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Less than Significant	None required	NA
4.8 Hydrology and Water Quality			
Impact WQ-1: The HR-2 Project could violate water quality standards or waste discharge requirements.	Potentially Significant	MM WQ 1.1: Implementation of a SWPPP	Less than Significant
Impact WQ-2: The HR-2 Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	Less than Significant	None Required	NA
Impact WQ-3: The HR-2 Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off-site.	Less than Significant	None Required	NA

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact WQ-4: The HR-2 Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.	No Impact	None Required	NA
Impact WQ-5: The HR-2 Project would not create or contribute to runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.	Potentially Significant	MM WQ 1.1: Implementation of a SWPPP	Less than Significant
Impact WQ-6: The HR-2 Project would not otherwise substantially degrade water quality.	No Impact	None Required	NA
Impact WQ-7: The HR-2 Project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary Map, Flood Insurance Rate Map, or other flood hazard delineation map.	No Impact	None Required	NA
Impact WQ-8: The HR-2 Project would not place structures within a 100-year flood hazard area that would impede or redirect flood flows.	No Impact	None Required	NA
Impact WQ-9: The HR-2 Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.	No Impact	None Required	NA
Impact WQ-10: The HR-2 Project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow.	No Impact	None Required	NA
4.9 Land Use and Planning			
Impact LU-1: The HR-2 Project would not physically divide an established community.	No Impact	None Required	NA
Impact LU-2: The HR-2 Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the HR-2 Project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental impact.	No Impact	None Required	NA
Impact LU-3: The HR-2 Project would not conflict with any applicable habitat conservation plan or natural community conservation plan.	No Impact	None required	NA

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
4.10 Noise			
Impact NOI-1: The HR-2 Project would not result in exposure of persons to or generation of noise levels in excess of standards established in local plans or ordinances, after implementation of mitigation measures, with the implementation of mitigation measures.	Construction and Drilling Noise would be Potentially significant Operational Noise would be Less than Significant	MM NOI-1.1: Restricted Work Hours on Saturdays. None required	Less than Significant N/A
Impact NOI-2: The HR-2 Project would not result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.	Less than Significant	None required	NA
Impact NOI-3: The HR-2 Project would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Less than Significant	None required	NA
Impact NOI-4: The HR-2 Project would not result in a substantial temporary or periodic increase in ambient noise levels at the closest sensitive receptors above levels existing without the Project.	Less than Significant	None required	NA
Impact NOI-5: The HR-2 Project is not in an area where an airport has been identified in a land use plan or where such a plan has been adopted, nor is it within 2 miles of a public airport or public use airport.	Less than Significant	None required	NA
Impact NOI-6: The HR-2 Project would not expose people residing or working within the vicinity of a private airstrip to excessive noise levels.	No Impact	None required	NA
4.11 Population and Housing			
Impact POP-1: The proposed HR-2 Project would not induce substantial population growth in an area either directly or indirectly.	Less than Significant	None required	NA
Impact POP-2: The proposed HR-2 Project would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.	No Impact	None required	NA
Impact POP-3: The proposed HR-2 Project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.	No Impact	None required	NA

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
4.12 Public Services			
Impact PBS-1: The HR-2 Project would not result in substantial, adverse, physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:			
Impact PBS-1a: Fire Protection.	Less than Significant	None required	NA
Impact PBS-1b: Police Protection.	Less than Significant	None required	NA
Impact PBS-1c: Schools.	Less than Significant	None required	NA
Impact PBS-1d: Parks.	Less than Significant	None required	NA
Impact PBS-1e: Emergency response access.	Less than Significant	None required	NA
Impact PBS-1f: Other public facilities.	Less than Significant	None required	NA
4.13 Recreation			
Impact REC-1: The HR-2 Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Less than Significant	None required	NA
Impact REC-2: The HR-2 Project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	No Impact	None required	NA
4.14 Transportation and Circulation			
Impact TR-1: The proposed HR-2 Project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	No Impact	None required	NA

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact TR-2: The HR-2 Project would not conflict with an applicable congestion management policy.	No Impact	None required	NA
Impact TR-3: The HR-2 Project would not change air traffic patterns.	No Impact	None required	NA
Impact TR-4: The HR-2 Project would not increase hazards or incompatible uses.	No Impact	None required	NA
Impact TR-5: The HR-2 Project would not result in inadequate emergency access.	No Impact	None required	NA
Impact TR-6: The HR-2 Project would not conflict with policies, plans, and programs for public transit, bicycles, and pedestrian facilities.	No Impact	None required	NA
4.15 Utilities and Services			
Impact UTL-1: The HR-2 Project would not exceed wastewater treatment requirements of the applicable RWQCB.	Less than Significant	None required	NA
Impact UTL-2: The HR-2 Project would result in the construction of a new on-site wastewater treatment facility, however it would not require construction of new municipal water or wastewater treatment facilities or expansion of existing facilities of which could cause significant environmental impact.	Less than Significant	None required	NA
Impact UTL-3: The HR-2 Project would require the construction of new on-site stormwater drainage facilities, however, this Project would not require construction of municipal stormwater and drainage facilities or expansion of existing facilities of which could cause significant environmental impact.	Less than Significant	None required	NA
Impact UTL-4: There would be sufficient water supplies available to serve the HR-2 Project from existing entitlements and resources, and new or expanded entitlements would not be required.	Less than Significant	None required	NA
Impact UTL-5: The HR-2 Project would not result in a determination by the wastewater treatment provider that serves or may serve the Project that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.	No Impact	None required	NA
Impact UTL-6: The HR-2 Project would be served by landfills with sufficient permitted capacity to accommodate the Project's solid waste disposal needs.	Less than Significant	None required	NA

TABLE 1-1 SUMMARY OF HUDSON RANCH POWER II (HR-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION HR-2 PROJECT	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact UTL-7: The HR-2 Project would comply with federal, state, and local statutes and regulations related to solid waste.	Less than Significant	None required	NA
4.16 Climate Change and Greenhouse Gas (GHG) Emissions			
Impact GHG-1: Emission of GHG over the long-term operation of the proposed HR-2 Project would not result, either directly or indirectly, in levels that would exceed the significance threshold resulting in a significant impact to the environment.	Less than Significant	None required	NA
Impact GHG-2: The proposed HR-2 Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	Less than Significant	None required	NA

Notes:
NA = Not Applicable

1.6 SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT DESCRIPTION

Simbol, Inc. (Simbol) proposes to construct and operate the Simbol Calipatria Plant II (SmCP–2), a commercial lithium carbonate production plant in the Salton Sea geothermal field. The facility would process geothermal brine from the proposed Hudson Ranch Power II (HR-2) Geothermal Power Plant to produce lithium carbonate product for commercial sale. The SmCP–2 plant facilities would be located adjacent to the HR-2 Project site and would extract lithium, manganese, and zinc from HR-2's geothermal brine. These substances would then be converted into lithium carbonate, lithium hydroxide, hydrochloric acid, zinc, and manganese products. Once the minerals have been extracted, the brine would then be returned to the HR-2 site for injection into the geothermal reservoir.

The proposed SmCP–2 Project consists of:

- Construction and operation of facilities to extract lithium, manganese, zinc from geothermal brine and process the extracted substances to produce commercial quantities of lithium, hydrochloric acid, manganese, and zinc products;
- Construction and operation of brine supply/return pipelines and other associated interconnection facilities with the HR-2 plant;
- Paving of McDonald Road from State Highway 111 to English Road;
- Construction of a distribution line, along two optional routes, to bring power to the SmCP-2 plant site from a new IID substation and 92-kV distribution ~~transmission~~ line proposed for construction as part of the Simbol Calipatria Plant I (SMCP-1) Project (CUP#12-0004); and
- Site Restoration at the end of the SmCP-2 Project's 30-year life.

The facilities dedicated to the SmCP-2 plant would occupy ~~an~~ approximately 48-acres of a 100-acre area. The SmCP-2 plant would share HR-2's stormwater pond and brine pond. For the freshwater pond, SmCP-2 would either share HR-2's freshwater pond, or construct its own within the same total area. The freshwater pond may be constructed as two individual project-specific freshwater ponds, but the two ponds would be constructed within approximately the same total area as shown for the shared pond.

A silica management area and lithium, zinc and manganese extraction process areas would be constructed within designated portions of the plant site on concrete pad(s) with a containment curb. The silica management and extraction process areas would consist of a series of interconnected tanks and pipelines.

Product processing facilities consisting of a series of interconnected tanks and pipelines would also be constructed on the site. The processing facilities would be erected within designated portions of the plant site on concrete pad(s) with a concrete containment curb or in designated buildings. The facility will comply

with California Code of Regulations (CCR) Title 22, Division 4.5, when treating materials that are hazardous.

SITE ACCESS AND ROADWAY IMPROVEMENTS

The primary entrance to the SmCP-2 plant site would be from McDonald Road, approximately 2,800 feet west of English Road and would cross over the Imperial Irrigation District "O" lateral.

ELECTRICAL POWER TRANSMISSION AND INTERCONNECTION

The SmCP-2 plant would be connected to the IID grid, via a new overhead distribution line that would follow either a northern route or southern route. The northern route would be approximately 1.7 miles in length and would generally proceed north to the northern boundary of the Project site; then head west along McDonald Road; and, south to connect with the proposed IID Substation. The southern route would be approximately 0.25 miles in length and would proceed south from the plant site, to connect with the proposed IID 92-kV distribution ~~transmission~~ line or the proposed IID substation. An emergency diesel generator would be used to keep vital SmCP-2 plant systems operating during power outages.

PROJECT CONSTRUCTION

The overall construction schedule for the Project, including electrical interconnection, site cleanup and demobilization, is approximately 21 months. A peak construction work force of up to 200 construction workers is anticipated.

1.7 AREAS OF CONTROVERSY

Areas of controversy were identified through written agency and public comments received during the scoping period. Public comments received during the scoping period are provided in Appendix A. In summary, the following issues were identified during scoping and are addressed in the appropriate sections of Chapter 4:

- Air Quality
- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Utilities

1.8 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the *CEQA Guidelines* requires that an EIR contain issues to be resolved, which includes the choice among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- Determine whether the EIR adequately describes the environmental impacts of the proposed project;
- Choose among alternatives;
- Determine whether the recommended mitigation measures should be adopted or modified; and
- Determine whether additional mitigation measures need to be applied to the proposed project.

1.9 SUMMARY OF SMCP-2 ENVIRONMENTAL IMPACTS

Table 1-2 provides a summary of the SmCP-2 Project's environmental impacts and associated mitigation measures that would avoid or minimize potential impacts, respectively. The table also indicates the level of significance of each environmental impact both prior to and after application of the recommended mitigation measure(s).

For a detail discussion of SmCP-2 Project's impacts and mitigation measures by resource area, please refer to Chapter 4.

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
4.1 Aesthetics			
Impact AES-1: The SmCP-2 Project would not significantly impact a scenic vista.	Less than Significant	None required	NA
Impact AES-2: The SmCP-2 Project would not cause substantial damage to scenic resources within a state scenic highway.	No Impact	None required	NA
Impact AES-3: The SmCP-2 Project would not substantially degrade the existing visual character or quality of the site and its surroundings.	Less than Significant	None required	NA
Impact AES-4: The SmCP-2 Project would not create a new source of substantial light or glare.	Less than Significant	None required	NA
4.2 Agricultural Resources			
Impact AG-1: The SmCP-2 Project would convert Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to non-agricultural use.	Significant Impact	MM AG-1.1: Loss of Agricultural Land - Non-Prime (Farmland of Statewide Importance and Farmland of Local Importance) Farmland MM AG-1.2: Loss of Agricultural Land - Prime Farmland MM AG-1.3: Reclamation Plan/Site Abandonment Plan	Less than Significant
Impact AG-2: The SmCP-2 Project would not conflict with existing zoning for agricultural use or a Williamson Act contract.	No Impact	None required	NA
Impact AG-3: The SmCP-2 Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).	No Impact	None required	NA
Impact AG-4: The SmCP-2 Project would not result in the loss of forest land or conversion of forest land to non-forest use.	No Impact	None required	NA

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact AG-5: The SmCP-2 Project does not include changes in the existing environment which, due to their location or nature that would result in conversion of neighboring farmland to non-agricultural use.	No Impact	None required	NA
4.3 Air Quality			
Impact AQ-1: The proposed SmCP-2 Project would not conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	None required	NA
Impact AQ-2: Estimated construction emissions from the proposed SmCP-2 Project would not violate an air quality standard and/or contribute substantially to an existing or projected air quality violation.	Potentially Significant	MM AQ-2.1: NOx Controls during HR-2/SmCP-2 Concurrent Construction	Less than Significant
Impact AQ-3: The SmCP-2 Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	Less than Significant	None required	NA
Impact AQ-4: The SmCP-2 Project would not expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	None required	NA
Impact AQ-5: The SmCP-2 Project would not create objectionable odors affecting a substantial number of people.	Less than Significant	None required	NA
4.4 Biological and Natural Resources			
BIO-1: Implementation of the SmCP-2 Project could result in the loss of individuals or essential habitat for the western burrowing owl, a California species of special concern and the American badger, a California species of special concern. It would not result in the loss of individuals or essential habitat for the desert pupfish, a federally listed and state-listed endangered species, nor would it result in a substantial loss of foraging habitat for the merlin, a California species of special concern.			

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact BIO-1a: Western Burrowing Owl.	Potentially Significant	MM BIO 1.1-1: Avoidance of Occupied Burrows MM BIO 1.1-2: Pre-construction Surveys MM BIO 1.1-3: Preparation of a Burrowing Owl Mitigation Plan MM BIO 1.1-4: Activities During Nesting Season MM BIO 1.1-5: Passive Relocation Techniques MM BIO 1.1-6: Worker Training MM BIO 1.1-7: Mitigation Plan for Burrows	Less than Significant
Impact BIO-1b: American Badger.	Potentially Significant	MM BIO-1.3: Avoidance of American Badger Burrows	Less than Significant
Impact BIO-1c: Desert Pupfish.	No impact	None required	NA
Impact BIO-1d: Merlin.	Less than Significant	None required	NA
Impact BIO-2: The SmCP-2 Project would not result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS.	No impact	None required	NA
Impact BIO-3: The SmCP-2 Project would not result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means.	No impact	None required	NA

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact BIO-4: The SmCP-2 Project site could substantially interfere with movement of any native fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.	Less than Significant	None required	NA
Impact BIO-5: The SmCP-2 Project would not result in a conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No impact	None required	NA
Impact BIO-6: The SmCP-2 Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or any adopted biological resources recovery or conservation plan of any federal or state agency.	No impact	None required	NA
4.5 Cultural and Paleontological Resources			
Impact CUL-1: The SmCP-1 Project would not result in a substantial adverse change in the significance of a historical resource that is either listed or eligible for listing in the National Register, the California Register, or a local register of historic resources. However, the Project could impact previously unrecorded prehistoric and historic resources.	Potentially Significant	MM CUL-1.1: Cultural Resources Construction Monitor MM CUL-1.2: Evaluate Significance of Unanticipated Discoveries MM CUL-1.3: Native American Construction Monitor MM CUL-1.4: Unanticipated Discoveries Historic Treatment Plan	Less than Significant
Impact CUL-2: The SmCP-2 Project could result in impacts on previously unrecorded archaeological resources. If these resources meet the eligibility criteria of the California Register of Historic Places, the impact would cause a substantial adverse change in the significance of an archaeological resource.	Potentially Significant	MM CUL-1.1 through MM CUL-1.4.	Less than Significant
Impact CUL-3: The SmCP-2 Project could result in impacts on a unique paleontological resource or site or a unique geologic feature.	Potentially Significant	MM CUL-3.1: Paleontological Construction Monitoring	Less than Significant

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact CUL-4: The SmCP-2 Project could result in impacts on human remains, including those interred outside of formal cemeteries. Ground-disturbing activities could disturb buried human remains.	Potentially Significant	MM CUL-4.1: Identification of Human Remains	Less than Significant
4.6 Geology, Soils, and Mineral Resources			
Impact GEO-1a: The SmCP-2 Project would not expose people or structures to substantial adverse impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault.	Less than Significant	None required	NA
Impact GEO-1b: The SmCP-2 Project would not expose people or structures to substantial adverse impacts, including the risk of loss, injury, or death involving strong seismic groundshaking.	Less than Significant	None required.	NA
Impact GEO-1c: The SmCP-2 Project site could experience seismically related ground failure, including liquefaction.	Potentially Significant	MM GEO 1.1: Prepare Geotechnical Investigation and Incorporate Results into Project Design	Less than Significant
Impact GEO-1d: The SmCP-2 Project would not expose people or structures to substantial adverse impacts, including the risk of loss, injury, or death involving landslides.	Less than Significant	None required	NA
Impact GEO-2: SmCP-2 Project construction would require excavation and grading that may result in soil erosion and loss of topsoil.	Potentially Significant	MM GEO-2.1: Reduce Soil Erosion	Less than Significant
Impact GEO-3: The SmCP-2 Project could be situated on a geologic unit or unstable soil, or a location that would become unstable as a result of the Project.	Potentially Significant	MM GEO-1.1 Prepare Geotechnical Investigation and Incorporate Results into Project Design	Less than Significant
Impact GEO-4: The SmCP-2 Project site contains expansive clay soils as defined in Table 18-1-B of the Uniform Building Code (1994), thereby creating substantial risks to life or property.	Potentially Significant	MM GEO-1.1 Prepare Geotechnical Investigation and Incorporate Results into Project Design	Less than Significant

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact GEO-5: The SmCP-2 Project would be situated on soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.	Less than Significant	None required	NA
Impact GEO-6: The SmCP-2 Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	Beneficial impact	None Required	NA
Impact GEO-7: The SmCP-2 Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	No Impact	None Required	NA
4.7 Hazards and Hazardous Materials			
Impact HAZ-1: The SmCP-2 Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less than Significant	None required	NA
Impact HAZ-2: The SmCP-2 Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less than Significant	None required	NA
Impact HAZ-3: The SmCP-2 Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.	No Impact	None Required	NA
Impact HAZ-4: The SmCP-2 Project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.	No impact	None required	NA
Impact HAZ-5: The SmCP-2 Project would not be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, and the Project would not result in a safety hazard for people residing or working in the Project area.	No impact	None required	NA
Impact HAZ-6: The SmCP-2 Project is not located within the vicinity of a private airstrip, and the Project would not result in a safety hazard for people residing or working in the Project area.	No impact	None required	NA

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact HAZ-7: The SmCP-2 Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	No impact	None required	NA
Impact HAZ-8: The SmCP-2 Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Less than Significant	None required	NA
4.8 Hydrology and Water Quality			
Impact WQ-1: The SmCP-2 Project could violate water quality standards or waste discharge requirements.	Potentially Significant	MM WQ 1.1: Implementation of a SWPPP	Less than Significant
Impact WQ-2: The SmCP-2 Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	Less than Significant	None Required	NA
Impact WQ-3: The SmCP-2 Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off-site.	Less than Significant	None Required	NA
Impact WQ-4: The SmCP-2 Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.	No Impact	None Required	NA
Impact WQ-5: The SmCP-2 Project would not create or contribute to runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.	Potentially Significant	MM WQ 1.1: Implementation of a SWPPP	Less than Significant
Impact WQ-6: The SmCP-2 Project would not otherwise substantially degrade water quality.	No Impact	None Required	NA
Impact WQ-7: The SmCP-2 Project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary Map, Flood Insurance Rate Map, or other flood hazard delineation map.	No Impact	None Required	NA

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact WQ-8: The SmCP-2 Project would not place structures within a 100-year flood hazard area that would impede or redirect flood flows.	No Impact	None Required	NA
Impact WQ-9: The SmCP-2 Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.	No Impact	None Required	NA
Impact WQ-10: The SmCP-2 Project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow.	No Impact	None Required	NA
4.9 Land Use and Planning			
Impact LU-1: The SmCP-2 Project would not physically divide an established community.	No Impact	None Required	NA
Impact LU-2: The SmCP-2 Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the SmCP-2 Project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental impact.	No Impact	None Required	NA
Impact LU-3: The SmCP-2 Project would not conflict with any applicable habitat conservation plan or natural community conservation plan.	No Impact	None required	NA
4.10 Noise			
Impact NOI-1: The SmCP-2 Project would not result in exposure of persons to or generation of noise levels in excess of standards established in local plans or ordinances, with the implementation of mitigation measures.	Construction and Drilling Noise would be Potentially significant Operational Noise would be Less than Significant	MM NOI-1.1: Restricted Work Hours on Saturdays. None required	Less than Significant N/A
Impact NOI-2: The SmCP-2 Project would not result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.	Less than Significant	None required	NA

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact NOI-3: The SmCP-2 Project would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Less than Significant	None required	NA
Impact NOI-4: The SmCP-2 Project would not result in a substantial temporary or periodic increase in ambient noise levels at the closest sensitive receptors above levels existing without the Project.	Less than Significant	None required	NA
Impact NOI-5: The SmCP-2 Project is not in an area where an airport has been identified in a land use plan or where such a plan has been adopted, nor is it within 2 miles of a public airport or public use airport.	Less than Significant	None required	NA
Impact NOI-6: The SmCP-2 Project would not expose people residing or working within the vicinity of a private airstrip to excessive noise levels.	No Impact	None required	NA
4.11 Population and Housing			
Impact POP-1: The proposed SmCP-2 Project would not induce substantial population growth in an area, either directly or indirectly.	Less than Significant	None required	NA
Impact POP-2: The proposed SmCP-2 Project would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.	No Impact	None required	NA
Impact POP-3: The proposed SmCP-2 Project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.	No Impact	None required	NA
4.12 Public Services			
Impact PBS-1: The SmCP-2 Project would not result in substantial, adverse, physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:			
Impact PBS-1a: Fire Protection.	Less than Significant	None required	NA
Impact PBS-1b: Police Protection.	Less than Significant	None required	NA

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact PBS-1c: Schools.	Less than Significant	None required	NA
Impact PBS-1d: Parks.	Less than Significant	None required	NA
Impact PBS-1e: Emergency response access.	Less than Significant	None required	NA
Impact PBS-1f: Other public facilities.	Less than Significant	None required	NA
4.13 Recreation			
Impact REC-1: The SmCP-2 Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Less than Significant	None required	NA
Impact REC-2: The SmCP-2 Project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	No Impact	None required	NA
4.14 Transportation and Circulation			
Impact TR-1: The proposed SmCP-2 Project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	Significant Impact for Intersection Analysis (The HR-2 Project would not have a significant impact on highway segments or intersection operations during construction in the near term (Year 2015). However, under future conditions (Year 2030), the HR-2 and SmCP-2 Projects would significantly affect the operations at the intersections of Hwy. 111/McDonald and Hwy 111/ Sinclair Road.	MM TR-1.1: Contribute Fair Share to Future Signalization of Highway 111/McDonald Road Intersection and Highway 111/Sinclair Road Intersection	MM TR-1.1 would reduce impacts to below a level of significance

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
Impact TR-2: The SmCP-2 Project would not conflict with an applicable congestion management policy.	No Impact	None required	NA
Impact TR-3: The SmCP-2 Project would not change air traffic patterns.	No Impact	None required	NA
Impact TR-4: The SmCP-2 Project would not increase hazards or incompatible uses.	No Impact	None required	NA
Impact TR-5: The SmCP-2 Project would not result in inadequate emergency access.	No Impact	None required	NA
Impact TR-6: The SmCP-2 Project would not conflict with policies, plans, and programs for public transit, bicycles, and pedestrian facilities.	No Impact	None required	NA
4.15 Utilities and Services			
Impact UTL-1: The SmCP-2 Project would not exceed wastewater requirements of the applicable RWQCB.	Less than Significant	None required	NA
Impact UTL-2: The SmCP-2 Project would not require construction of new municipal water or wastewater treatment facilities or expansion of existing facilities of which could cause significant environmental impact.	Less than Significant	None required	NA
Impact UTL-3: The SmCP-2 Project would not require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental impact.	Less than Significant	None required	NA
Impact UTL-4: There would be sufficient water supplies available to serve the SmCP-2 Project from existing entitlements and resources, and new or expanded entitlements would not be required.	Less than Significant	None required	NA
Impact UTL-5: The SmCP-2 Project would not result in a determination by the wastewater treatment provider that serves or may serve the Project that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.	No Impact	None required	NA
Impact UTL-6: The SmCP-2 Project would be served by landfills with sufficient permitted capacity to accommodate the Project's solid waste disposal needs.	Less than Significant	None required	NA
Impact UTL-7: The SmCP-2 Project would comply with federal, state, and local statutes and regulations related to solid waste.	Less than Significant	None required	NA

TABLE 1-2 SUMMARY OF SIMBOL CALIPATRIA PLANT II (SMCP-2) PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	RESULTING LEVEL OF SIGNIFICANCE
4.16 Climate Change and Greenhouse Gas (GHG) Emissions			
Impact GHG-1: Emission of GHGs over the long-term operation of the proposed SmCP-2 Project would result, either directly or indirectly, in levels that would exceed the significance threshold resulting in a significant impact to the environment.	Less than Significant	None required	NA
Impact GHG-2: The proposed SmCP-2 Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	No impact	None required	NA

Notes:
NA = Not Applicable.

1.10 PROJECT ALTERNATIVES

California Environmental Quality Act (CEQA) Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the Projects which could feasibly attain the basic objectives of the Project and reduce the degree of environmental impact. Section 6.0, Alternatives, provides a qualitative analysis of alternatives as compared to the proposed Projects. A summary of alternatives for the proposed Projects is provided below:

- Alternative 1, No Projects, No Build Alternative Scenario: The proposed Project sites are assumed to remain in their current condition as undeveloped agricultural land. Alternative 1 would avoid significant impacts to all resource areas.

- Alternative 2, Modified Site Layout: The Projects would have a modified site layout that would reduce or avoid impacts to important farmlands on the Project site. Alternative 2 eliminates impacts to prime farmland, because the modified site layout would relocate the Project facilities within the Project site in order to avoid impacts to prime farmlands. Compared to the proposed Projects, the Modified Site Layout Alternative would eliminate impacts to prime farmland, but would result in slightly greater impacts to Farmland of Statewide Importance. It would also slightly increase impacts to aesthetics, air quality, biological resources, cultural resources, hazards, and water quality.

- Alternative 3, Reduced Projects: The Projects would be reduced in size and there would be less site disturbance and some of the Projects' environmental impacts. Compared to the proposed Projects, the Reduced Projects Alternative would result in very similar, though slightly reduced, impacts to many environmental resources (aesthetics, agriculture resources, air quality, biological resources, cultural resources, geology, hydrology and water quality, traffic and transportation and GHGs).