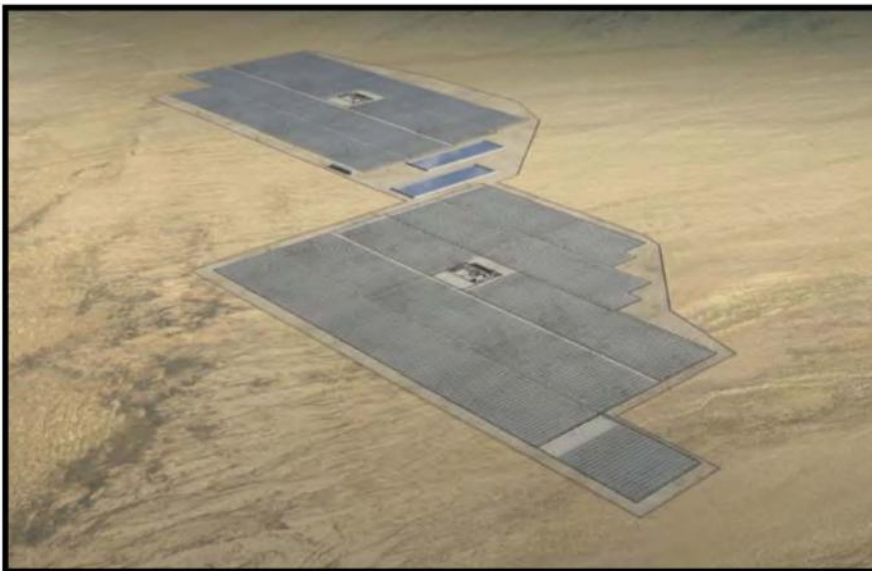


Staff Assessment and
Environmental Impact Statement

**GENESIS SOLAR
ENERGY PROJECT**

Application For Certification (09-AFC-8)
Riverside County



**U.S. BUREAU
OF LAND
MANAGEMENT
and
CALIFORNIA
ENERGY
COMMISSION**

STAFF REPORT

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GENESIS SOLAR ENERGY PROJECT (09-AFC-8) STAFF ASSESSMENT/DRAFT ENVIRONMENTAL IMPACT STATEMENT

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EXECUTIVE SUMMARY

Testimony of Mike Monasmith

INTRODUCTION

This Staff Assessment/Draft Environmental Impact Statement (SA/DEIS) is a joint document being published by the U.S. Bureau of Land Management (BLM) and the California Energy Commission (CEC). It is in the interest of the BLM and the Energy Commission to share in the preparation of a joint environmental analysis of the proposed project to avoid duplication of staff efforts, to share staff expertise and information, to promote intergovernmental coordination at the local, state, and federal levels, and to facilitate public review by providing a joint document and a more efficient environmental review process. Additionally, both the National Environmental Policy Act of 1969 (NEPA) and the California Environmental Quality Act (CEQA) have provisions to promote the efficient preparation of joint documents in order to save resources and benefit the public.

This SA/DEIS contains U.S. Bureau of Land Management and Energy Commission staff (hereafter jointly referred to as staff) independent evaluation of the Genesis Solar LLC (applicant) Genesis Solar Energy Project (GSEP) application, which was filed with the BLM and CEC. The application filed with BLM is the BLM Application for a Right of Way Grant on BLM-administered land (CACA 048880), and the application filed with the Energy Commission is the Application for Certification (09-AFC-8). The SA/DEIS examines engineering, environmental, public health, and safety aspects of the GSEP, based on the information provided by the applicant and other sources available at the time the SA/DEIS was prepared. The SA/DEIS will also include for BLM a Draft Land Use Plan Amendment (Draft PA) to the BLM's California Desert Conservation Area Plan (1980) (as Amended).

The applicant has also applied for the American Recovery and Reinvestment Act (ARRA) Renewable Energy Grant Program. Two goals of the ARRA Renewable Energy Grant Program are to enhance America's energy independence and create near-term employment opportunities for Americans. To be eligible for these ARRA funds, the applicant must begin construction on the GSEP by the end of 2010.

This SA/DEIS serves as staffs' analysis of the engineering, environmental, public health and safety aspects of the proposed project, based on the information provided by the applicant and other sources available at the time the SA/DEIS was prepared. The SA/DEIS contains all analyses normally contained in an Environmental Impact Report (EIR) as required by the California Environmental Quality Act (CEQA), as well as all analyses required as part of an EIS prepared under the National Environmental Policy Act (NEPA). The SA/DEIS will be available for a 90-day public comment period beginning on April 9, 2010. The Notice of Availability (NOA) (published by the U.S. Environmental Protection Agency in the *Federal Register*) initiates the 90-day public review and comment period.

When considering a power plant project greater than 50 Megawatts (MWs) for licensing, the Energy Commission is the lead state agency under CEQA, and its process is

functionally equivalent to the preparation of an EIR. Similarly, BLM is the lead Federal agency for the NEPA review of the proposed Right-of-Way and possible Land Use Plan Amendment. The Energy Commission and the BLM are engaging in concurrent review processes. The following explains in more detail the steps each agency will take to complete review.

In support of its certification process, the Energy Commission staff has the responsibility to complete an independent assessment of the project's engineering design and its potential effects on the environment, on the public's health and safety, and whether the project conforms with all applicable laws, ordinances, regulations and standards (LORS). The staff also recommends measures to mitigate potential significant adverse environmental effects and conditions of certification for construction, operation, maintenance and eventual decommissioning of the project.

This SA/DEIS is not the decision document for these proceedings nor does it contain findings of the Energy Commission related to environmental impacts or the project's compliance with local/state/federal legal requirements. The SA/DEIS will serve as staff's testimony in evidentiary hearings to be held by the Committee of two Commissioners overseeing this case. The Committee will consider the recommendations presented by staff, the applicant, all parties, government agencies, and the public prior to proposing its decision. The entire Energy Commission will make a final decision, including findings after the Committee's publication of its proposed decision. The Commission's final decisions on power plant AFCs greater than 50 MWs are subject to judicial review by the Supreme Court of California (Pub. Res. § 25531.)

In support of the processing of the Right-of-Way (ROW) Application and land use plan amendment processes, the BLM has the responsibility to evaluate the environmental impacts of the proposed action, the No Action alternative, and other alternatives that may meet the purpose and need for the proposed project.

The BLM has determined that the proposed site for the Genesis project is not identified in the California Desert Conservation Area (CDCA) Plan as associated with power generation or transmission. The requested ROW cannot be granted unless such a grant would be consistent with the terms of the CDCA Plan. Therefore, BLM must amend the Plan to allow power generation and transmission at the proposed site as a prerequisite to granting the ROW. As part of the DEIS, BLM identify its preferred alternative and will also present a potential Draft PA to the CDCA Plan to allow for the project if a ROW is granted.

Following the 90-day public comment period, BLM and CEC staff will review and develop responses to comments provided by the public and other agencies and plan to publish the responses in August, 2010. Responses to the comments and other relevant information identified during the comment period will be incorporated into the Supplemental Staff Assessment/Final Environmental Impact Statement (SSA/FEIS), which will also identify for BLM a Proposed Land Use Plan Amendment (Proposed PA). The NOA (published by the EPA in the *Federal Register*) will initiate a 30-day protest period on the Proposed PA to the Director of the BLM. Protests regarding the Proposed PA must be sent in writing to the Director of the BLM and comply with the protest procedures described in 43 CFR § 1610.5-2.

Following resolution of any protests regarding proposed CDCA Plan amendments, BLM may then publish an Approved Plan Amendment and a Record of Decision (ROD) on the Project Application. The decision regarding the ROW grant is appealable to the Interior Board of Land Appeals upon issuance of the ROD.

PROPOSED PROJECT LOCATION AND DESCRIPTION

The GSEP is located approximately 25 miles west of the city of Blythe, California, on BLM-administered lands. The project area is south of the Palen/McCoy Wilderness Area and north of Ford Dry Lake and Interstate 10, and can be viewed in **Project Description Figures 1 and 2**. The proposed GSEP is entirely on Federal land. A summary legal description of the BLM ROW application is provided in the following Table.

Section	Aliquot	Estimated Acres
Township 6S, Range 19E, San Bernardino Base & Meridian		
4	S ½ except wilderness	260
5	All except wilderness	550
6	SE ¼	160
7	N ½ NE ¼	80
8	NE ¼, N ½ NW ¼	240
9	N ½	320
10	All except wilderness	580
11	SW ¼	160
13	NW ¼ except wilderness; SW ¼	280
14	N ¾, NW ¼, N ¾, NE ¼	240
15	N ½ NW ¼, N ½ NE ¼	160
24	W ½ N ½	160
Subtotal, T 6 S, R 19 E:		3,190
Township 6S, Range 18E, San Bernardino Base & Meridian		
1	S ½ except wilderness	290
2	S ½ except wilderness	260
3	S ½	320
4	All except wilderness	580
Subtotal, T 6S, R18 E:		1,450
Total, Modified ROW, 1/4/08		4,640

Source: BLM, Plan of Development, September 2009

The applicant is seeking a Right-of-Way grant with BLM for approximately 4,640 acres of lands. (The ROW application for the GSEP was originally 19,000 acres when filed in 2007). Construction and operation of the project would disturb a total of about 1,800 acres. As such, any difference between the total acreage listed in the Right-of-Way application (4,640) and the total acreage required for project construction and operation (approx. 1,800) would not be part of the ROW grant, if BLM decides to approve the project.

The Project area is located in east central Riverside County, where land use is characterized predominantly by open space and conservation and wilderness areas. The western portion of the county accounts for most of the developed area of the county, including urban areas and agricultural areas. The southeastern corner of the

county to the east of the Project also contains limited agricultural areas and rural development (Riverside County, 2003). The following Riverside County Assessor's Parcel Number's apply to the parcels within the overall ROW and linear corridor boundary: 810290005-810290008, 810410013, 810410019, 810410014, 810410026, 810410002, 810410021, 810410015, 810410022, 810410023, 810410027-810410029, 810420012, 818040010, 818070001-818101003, 818111008, 818112004, 879020025.

The area designated within the Palo Verde Valley Area Plan occurs to the east of the Project and encompasses the developed and agricultural area in eastern Riverside County. The portion of the Palo Verde Valley Area Plan in the vicinity of the Project consists mainly of sparsely populated desert and mountain areas. The more populated and agricultural areas occur farther east of the GSEP in the vicinity of Blythe.

The Project is also located within the BLM California Desert Conservation Area Plan (CDCA Plan) (BLM, 1980), and is shown in **Project Description Figure 3**. The CDCA Plan establishes a number of conservation areas under the Wilderness Review Program. The Project is located adjacent to the southern boundary of the Palen/McCoy Wilderness Area. The Chuckwalla Mountains and Little Chuckwalla Mountains Wilderness Areas are also located farther south-southwest of the Project.

The Genesis project will utilize solar parabolic trough technology to generate electricity. With this technology, arrays of parabolic mirrors collect heat energy from the sun and refocus the radiation on a receiver tube located at the focal point of the parabola. A heat transfer fluid (HTF) is heated to high temperature (750°F) as it circulates through the receiver tubes. The heated HTF is then piped through a series of heat exchangers where it releases its stored heat to generate high pressure steam. The steam is then fed to a traditional steam turbine generator where electricity is produced.

MAJOR COMPONENTS OF THE PROPOSED PROJECT

The following items are some of the major components of GSEP. For a more exhaustive list, please see Section B.1.2., in the **Project Description** section.

Project Construction

Project construction is expected to occur over a total of 39 months. Project construction will require an average of 646 employees over the entire 39-month construction period, with labor requirements peaking at approximately 1,085 workers in Month 23 of construction. The construction workforce will consist of laborers, craftsmen, supervisory personnel, support personnel, and management personnel.

Temporary construction parking areas will be provided within the power plant site adjacent to the laydown area. The plant laydown area will be utilized throughout the build out of the two solar units. If approved, project construction would begin in the fourth quarter of 2010, with commercial operation commencing in the second quarter of 2013.

Operation and Maintenance

While electrical power is to be generated only during daylight hours, GSEP will be staffed 24 hours a day, seven days per week. A total estimated workforce of 40-50 full time employees will be needed once the GSEP is fully operational.

Transmission System

The GSEP generation tie-line would use the existing pole structures of the BEPTL to interconnect with Southern California Edison's proposed Colorado River Substation, to be located south and west of the city of Blythe, California.

Transmission Line Route

Project proposed new transmission line, along with a new access road and new natural gas pipeline will be co-located in one linear corridor to serve the main GSEP facility. This corridor would exit the facility to the south and would be approximately 6.5 miles long. The generation tie-line would cross Interstate 10 (I-10), and tie into the Blythe Energy Project Transmission Line (BEPTL), which is currently under construction.

Fuel Supply and Use

The auxiliary boiler will be fueled by natural gas supplied from a new six-mile, eight-inch pipeline connected to an existing Southern California Gas pipeline located north of I-10. The maximum estimated natural gas usage is expected to be 60 million standard cubic feet per year, for a maximum of 60,000 million British thermal units per year.

Water Use

The GSEP proposes to use a wet cooling tower for power plant cooling. Water for cooling tower makeup, process water (steam) makeup, and other industrial purposes uses such as mirror washing would be supplied from onsite groundwater wells, and stored in several on-site tanks. Storage tanks would contain raw water (500,000 gallons), treated water (1,250,000 gallons) and wastewater (250,000 gallons). Project cooling water blowdown would be piped to lined, onsite evaporation ponds (two 30-acre ponds that will be covered by nets to discourage migratory and local bird usage). After used project water has gone through the evaporation process, the solids that settle at the bottom of the evaporation pond will be periodically tested by the applicant, and removed to a licensed, non-hazardous waste disposal facility.

Water Requirements

The GSEP proposes to utilize approximately 1,644 acre-feet of ground water per year (AFY) for its operation. Staff is recommending a Water Conservation Plan, which has several options to reduce water use.

Water Source and Quality

The GSEP water needs will be met by use of groundwater pumped from one of two wells on the plant site. Water for domestic uses by project employees will also be provided by onsite groundwater treated to potable water standards. Groundwater modeling testing data indicates that the onsite groundwater has varying levels of totally dissolved solids (TSD) that range from 3,000 to 5,000 mg/l.

Solar Mirror Washing Water

Water from the primary desalination process (reverse osmosis (RO) water), will be deionized and used to clean the solar collectors and to facilitate dust and contaminant removal. The collectors would be cleaned once or twice per week, determined by the reflectivity monitoring program. This mirror washing operation would be done at night and involves a water truck spraying treated water on the mirrors in a drive-by fashion. The applicant expects that that the mirrors will be washed weekly in winter and twice weekly from mid-spring through mid-fall. Because the mirrors are angled down for washing, water does not accumulate on the mirrors; instead, it would fall from the mirrors to the ground and, due to the small volume (two acre-feet/year), is expected to soak in with no appreciable runoff. Any remaining rinse water from the washing operation would be expected to evaporate on the mirror surface.

PROPOSED PROJECT OBJECTIVES

The specific objectives of GSEP are:

- To develop a utility-scale solar energy project utilizing parabolic trough technology;
- To construct and operate an environmentally friendly, economically sound, and operationally reliable solar power generation facility that will contribute to the State of California's renewable energy goals;
- To locate the project in an area with high solar insolation (i.e., high intensity of solar energy);
- To interconnect directly to the CAISO Grid through BEPTL and the SCE electrical transmission system; and
- To fulfill Governor Schwarzenegger's and Secretary Salazar's Memorandum of Understanding to expedite renewable energy development in California.

SUPPORT FOR PROPOSED PROJECT

NEPA guidance published by the Council on Environmental Quality (CEQ) states that an environmental impact statement Purpose and Need section "shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action" (40 CFR §1502.13). The following discussion sets forth the purpose of, and need for, the project as required under NEPA.

BLM PURPOSE AND NEED

The BLM's purpose and need for the GSEP is to respond to Genesis Solar, LLC's application under Title V of Federal Land Policy and Management Act, FLPMA (43 U.S.C. 1761) for a ROW grant to construct, operate, and decommission a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other Federal applicable laws. The BLM will decide whether to approve, approve with modification, or deny issuance of a ROW grant to Genesis Solar, LLC for the proposed GSEP. The BLM's actions will also include consideration of amending the CDCA Plan concurrently. The CDCA Plan (1980, as amended), while recognizing the potential compatibility of solar generation facilities on public lands, requires that all sites associated with power generation or transmission not identified in that plan be

considered through the plan amendment process. If the BLM decides to approve the issuance of a ROW grant, the BLM will also amend the CDCA Plan as required.

In conjunction with FLPMA, BLM authorities include:

- Executive order 13212, dated May 18, 2001, which mandates that agencies act expediently and in a manner consistent with applicable laws to increase the “production and transmission of energy in a safe and environmentally sound manner.”
- The Energy Policy Act 2005, which requires the Department of the Interior (BLM’s parent agency) to approve at least 10,000 MW of renewable energy on public lands by 2015.
- Secretarial Order 3285, dated March 11, 2009, which "establishes the development of renewable energy as a priority for the Department of the Interior.”

The Federal government and the State of California have established the need for the nation and State to increase the development and use of renewable energy in order to enhance the nation’s energy independence, meet environmental goals, and create new economic and employment growth opportunities. GSEP would help meet these needs by:

- Assisting California in meeting its Renewable Portfolio Standard goals of 20% of retail electric power sales by 2010 under existing law (Senate Bill 1078 – Chapter 516, Statutes of 2002) and 33% of electrical power retail sales by 2020 under pending legislation;
- Supporting U.S. Secretary of the Interior Salazar’s Orders 3283 and 3285 making the production, development and delivery of renewable energy top priorities for the United States;
- Supporting Governor Schwarzenegger’s Executive Order S-14-08 to streamline California’s renewable energy project approval process and to increase the State’s Renewable Energy Standard to 33% renewable power by 2020;
- Supporting the greenhouse gas reduction goals of Assembly Bill 32 (California Global Warming Solutions Act of 2006); and.
- Sustaining and stimulating the economy of California by helping to ensure an adequate supply of renewable electrical energy, while creating additional construction and operations employment and increased expenditures in many local businesses.

DOE PURPOSE AND NEED

The Applicant has applied to the Department of Energy (DOE) for a loan guarantee under Title XVII of the Energy Policy Act of 2005 (EP Act), as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (the Recovery Act). DOE is a cooperating agency on this EIS pursuant to a MOU between DOE and BLM, signed in January 2010. The purpose and need for action by DOE is to comply with its mandate under EP Act by selecting eligible projects that meet the goals of the Act.

The EP Act 2005 established a Federal loan guarantee program for eligible energy projects, and was amended by ARRA to create Section 1705. That section authorizes a new program for rapid deployment of renewable energy projects and related manufacturing facilities, electric power transmission projects, and leading edge biofuels projects. The primary purposes of ARRA are to promote job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and State and local fiscal stabilization. The Section 1705 Program is designed to address the current economic conditions of the nation, in part, through renewable energy, transmission, and leading edge biofuels projects.

CEQA FUNCTIONAL EQUIVALENT AND NEPA PROCESSES

The Bureau of Land Management (BLM) and the Energy Commission have executed a Memorandum of Understanding concerning their intent to conduct a joint environmental review of the project in a single National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA) process. It is in the interest of the BLM and the Energy Commission to share in the preparation of a joint environmental analysis of the proposed project to avoid duplication of staff efforts, to share staff expertise and information, to promote intergovernmental coordination at the local, state, and federal levels, and to facilitate public review by providing a joint document and a more efficient environmental review process.

Under federal law, BLM is responsible for processing a Right-of-Way application for a proposed project, and associated transmission lines and other facilities, to be constructed and operated on land it administers. In processing applications, BLM must comply with the requirements of NEPA, the President's Council on Environmental Quality (CEQ) Regulations For Implementing The Procedural Provisions Of The National Environmental Policy Act (NEPA) (40 CFR Parts 1500 – 1508), and BLM's NEPA Handbook (H-1790-1). Agency specific NEPA procedures require that federal agencies reviewing projects under their jurisdiction consider the environmental impacts associated with the proposed project construction and operation before making a decision.

As the lead state agency under CEQA, the Energy Commission is responsible for reviewing and ultimately approving or denying all applications to construct and operate thermal electric power plants, 50 MW and greater, in California. The Energy Commission's facility certification process carefully examines public health and safety, environmental impacts, and engineering aspects of proposed power plants and all related facilities, such as electric transmission lines and natural gas and water pipelines.

The GSEP Staff Assessment/Draft Environmental Impact Statement (SA/DEIS) includes all analyses normally contained in an Environmental Impact Report (EIR) as required by the California Environmental Quality Act (CEQA). When issuing a license, the Energy Commission is the lead state agency under CEQA, and its process is functionally equivalent to the preparation of an EIR.

The SA/DEIS is a joint CEQA (equivalent) and NEPA document drafted to meet and satisfy the regulatory needs of the CEC and BLM. As such, this document may not look like a traditional CEQA document or a traditional EIS-level NEPA document. However,

this document has been prepared under the joint effort of the Energy Commission and BLM and meets the needs and criteria of each agency from both a regulatory and analytical perspective.

To help facilitate the review of this joint document, some of the major distinctions between CEQA and NEPA are provided below:

	CEQA	NEPA
Purpose	Contains a substantive mandate that public agencies refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects. <i>Mountain Lion Foundation v. Fish and Game Commission</i> (1997) 16 Cal.4th 105.	“NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” (40 CFR 1500.1(b)) “NEPA’s purpose is not to generate paperwork – even excellent paperwork – but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore and enhance the environment.” (40 CFR 1500.1(c))
Application	To all governmental agencies at all levels in California, including local agencies, regional agencies, and state agencies, boards, districts and commissions.	To all federal agencies.
Activities	All approvals or discretionary projects, which have not been exempted from CEQA by statute or regulation, that may result in either a direct, indirect, or cumulatively considerable physical change in the environment.	Include in every recommendation or report on proposals for legislation or other major Federal actions significantly affecting the quality of the human environment.
Regulation	Resources Agency adopted CEQA Guidelines at Public Resources Code §§ 21000 et seq. Public agencies must adopt implementing procedures.	The President’s Council on Environmental Quality (CEQ) Regulations For Implementing The Procedural Provisions Of The National Environmental Policy Act (NEPA) (40 CFR Parts 1500 – 1508). Also, BLM has adopted its own NEPA procedures; see the BLM NEPA Handbook (H-

		1790-1).
Documents	Full analysis includes an EIR, which must be certified by the lead agency. In addition, the lead agency must make certain independent substantive “findings,” based on substantial evidence, that potential impacts have been reduced to a level below significance, or otherwise issue a statement of overriding conditions.	All major federal actions that may result in significant impact(s) on the environment require the preparation of an EIS. The federal agency decision on the action analyzed in an EIS is announced in a Record of Decision (ROD).
Baseline	Must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time of the preparation of the environmental analysis.	The baseline under NEPA is the description of the Affected Environment. The EIS shall succinctly describe the environment of the area(s) to be affected by the alternatives under consideration (40 CFR 1502.15). The affected environment describes the environmental conditions and trends at the time the action would occur.
Analysis	Must determine whether there are potentially adverse significant effects on the environment. Lead agencies are given broad latitude in determining what is “significant” according to locally adopted “thresholds of significance.” Must analyze direct, indirect and cumulative impacts.	Must analyze direct and indirect effects (see 40 CFR 1508.8), and cumulative impacts (see 40 CFR 1508.7) of the proposed action and alternatives. Include, for the Proposal, unavoidable adverse impacts, the relationship between short-term use and long-term productivity, and any irreversible or irretrievable commitments of resources (40 CFR 1502.16).
Lacking Science	No requirements to use anything other than the evidence in the record before the lead agency, unless a “fair argument” can be made that there are potentially significant impacts.	Must acknowledge whether there is incomplete or unavailable information regarding reasonably foreseeable significant adverse impacts. Must obtain such information, with original research if necessary, unless costs of obtaining it are “exorbitant” or the “means to obtain it are unknown.” If unavailable, EIS must evaluate the impacts based

		on theoretical approaches generally accepted in the scientific community. (40 CFR 1502.22)
Economic and Social Impacts	Does not require any analysis of social or economic impacts, except where any such impact has a direct or indirect physical effect on the environment. Physical effects do not include economic or social impacts without any accompanying impact on the environment.	Must analyze the positive and negative economic and social effects of each alternative analyzed, where any such impact has a related physical or human impact. Human impacts may include economic, social or health impacts. In fulfillment of Environmental Justice requirements, identify any disproportionate adverse effect on low-income or minority populations associated with one or more alternatives.
Alternatives	EIR must consider “a range of reasonable alternatives” that achieves the objectives of the project, in “meaningful detail,” which has been interpreted as less onerous than NEPA’s “substantial treatment” standard. Need not be exhaustive of all conceivable alternatives. One must be the “no project” alternative.	An EIS must rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated. Devote substantial treatment to each alternative considered in detail. Include alternatives not within the jurisdiction of the lead agency. Include the alternative of no action. Identify the agency preferred alternative. (40 CFR 1502.14)
Mitigation Measures	Lead agency must adopt feasible mitigation measures to lessen environmental impacts, or must make a statement of overriding consideration based on substantial evidence.	EIS must include appropriate mitigation measures not already included in the proposed action or alternatives. (see 40 CFR 1502.14(f)) Also see the CEQ definition of Mitigation at 40 CFR 1508.20.

AFFECTED ENVIRONMENT

The BLM has developed the Guidance for Processing Applications for Solar Power Generation Facilities on BLM-administered land in the California Desert District (2008). Cumulatively, the BLM guidance states a “reasonably foreseeable development scenario should be developed using an ‘areawide’ approach selected specifically for the individual project and surrounding area. The appropriate land area to cover in analyzing

cumulative impacts may vary by resource.” The BLM California Desert District, Palm Springs-South Coast Field Office -- the Federal lead agency for GSEP -- provided the area to consider for the cumulative impact analysis for the Project in pre-application meetings in July 2009. **Cumulative Impacts Figure 2** reflects the extent of the area considered in the cumulative impact analysis, which accounts for other solar projects proposed within an approximately 30-mile radius for GSEP. In accordance with BLM guidance, cumulative impacts are evaluated for each of the technical disciplines addressed in this document.

PUBLIC NOTICES, OUTREACH, AND PUBLIC AND AGENCY INVOLVEMENT

PUBLIC COORDINATION

The Energy Commission and the BLM have collaborated in their efforts to facilitate robust public participation in their joint regulatory review of the GSEP. To reach this goal, Energy Commission staff with assistance from BLM staff conducted ten discovery workshops to publicly discuss technical issues related to the proposed project, and determine if GSEP should be approved for construction and operation, and if so, under what set of conditions. These workshops formed the basis of discovery for the proceeding, and provided the public as well as local, state, and federal agencies the opportunity to ask questions about, and provide input on, the proposed project.

The Energy Commission issued notices for these workshops at least 10 days prior to the meeting. BLM provides public participation opportunities consistent with the President’s Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the NEPA (40 CFR Parts 1500 – 1508), BLM Planning Regulations (43 CFR Part 1600), and respective BLM Handbooks (H-1790-1 and H-1601-1). The Bureau of Land Management and Energy Commission’s outreach efforts are an ongoing and collaborative throughout the entire proceeding.

BLM’S INITIAL PUBLIC NOTICE AND OUTREACH

The Notice of Intent was published in the *Federal Register (Volume 74, No. 224)* on November 23, 2009. On December 10, 2009, the CEC, with participation from BLM, held a publicly-noticed Informational Hearing at Blythe City Hall Council Chambers in Blythe, California. On December 11, 2009, BLM held its formal Scoping Meeting at the University of California-Riverside, Palm Desert Campus. A draft scoping report was released for public review and comment in January 2010. A full listing of comments, organized by technical discipline, are included in the **Introduction** to this document.

ENERGY COMMISSION STAFF’S PUBLIC OUTREACH

Energy Commission staff provides formal notices to property owners within 1,000 feet of the proposed site and within 500 feet of a linear facility (such as transmission lines, gas lines and water lines). Staff mailed the public notices on October 6, 2009, informing the public, agencies, and elected officials of the Commission’s receipt and availability of the application 09-AFC-8. Each notice contained a link to a Commission-maintained project website (http://www.energy.ca.gov/sitingcases/genesis_solar/index.html).

Libraries

On September 29, 2009, the Energy Commission staff also sent copies of the GSEP AFC to the following libraries:

Riverside Main Library 3581 Mission Inn Avenue Riverside, CA 92501	Palo Verde Valley District Library 125 West Chanslor Way Blythe, CA 92225-1245
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In addition to these local libraries, copies of the AFC were also made available at the Energy Commission's Library in Sacramento, the California State Library in Sacramento, as well as, state libraries in Eureka, Fresno, Los Angeles, San Diego, and San Francisco.

Energy Commission's Public Adviser's Office

The Energy Commission's outreach program is also facilitated by the Public Adviser's Office (PAO). The PAO requested public service announcements at a variety of organizations including *The Desert Independent*, Blythe City Council, three separate Chambers of Commerce, and local (Palm Springs) television and radio stations. These notices informed the public of the Commission's receipt of the GSEP Application for Certification (AFC), and invited the public to attend the Public Site Visit (of the proposed GESP site) and Informational Hearing/BLM Scoping Meeting on December 10, 2009 in Blythe, CA.

BLM AND CEC PUBLIC WORKSHOPS

Staff from the Energy Commission and the BLM held Data Request, Data Response, and Issues Resolution Workshops in the following California communities: Blythe, Palm Desert, Palm Springs, and Sacramento. These ten (10) workshops were conducted on the following days: November 23 and 24, 2009; December 10, 18 and 31, 2009; January 6, 11 and 12, 2010; and, February 10 and 18, 2010. During each of these workshops, specific time for public participation was allocated, and public comment was taken. These workshops provided a public forum for the applicant, interveners, staff and cooperating agencies to interact regarding project issues.

Policy Level and Programmatic Agency Coordination

On August 8, 2007, the California Energy Commission and the Bureau of Land Management signed a Memorandum of Understanding (MOU) for the purpose on agreeing to prepare joint environmental documents for proposed, solar thermal projects which fall under the jurisdiction of both agencies. The MOU outlines roles and responsibilities of the cooperative process.

On October 12, 2009, California's Governor, Arnold Schwarzenegger, signed an MOU with the U.S. Department of the Interior's Secretary, Ken Salazar. The purpose of the MOU "is to direct California Agencies and Department of the Interior Agencies...to take the necessary actions to further the implementation of the Governors Executive Order S-14-08 and the Secretary's Order 3285 in a cooperative, collaborative, and timely manner". The agencies identified to in the MOU are the California Department of Fish

and Game (CDFG), California Energy Commission (CEC), Bureau of Land Management (BLM) and the U.S. Fish and Wildlife Service (FWS). The MOU also outlined specific objectives.

On January 26, 2010, the U.S. Department of the Interior's Bureau of Land Management signed a Memorandum of Understanding (MOU) with the U.S. Department of Energy's (DOE) Loan Guarantee Program (LGP) office. The purpose of the MOU is to provide a framework for the BLM and the LPG to cooperate in preparing Environmental Assessments, Environmental Impact Statements for renewable energy project's that require federal actions be taken by both the BLM and the LGP.

Project Specific Agency Coordination

On October 6, 2009, the Energy Commission staff sent a notice of receipt and a copy of the GSEP Application for Certification to all local, state, and federal agencies that might be affected by the proposed project. Staff continues to seek cooperation and or comments from regulatory agencies that administer LORS which may be applicable to proposed project. These agencies may include, as applicable, the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service (FWS), U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, California Coastal Commission, Colorado River Board of California, California Department of Transportation, State Water Resources Control Board/Colorado River Regional Water Quality Control Board, California Department of Fish and Game (CDFG), and the California Air Resources Board/Mojave Desert Air Quality Management District, among others. Additionally, staff notified agencies on November 9, 2009, informing them of the availability of supplemental information for the 09-AFC-8 proceeding.

Staff, particularly the **Biological Resources** staff, worked closely with the CDFG and the FWS to evaluate the proposed GSEP, and provide analysis contained within this SA/DEIS. Both CDFG and the FWS attended and participated in public workshops to address the wildlife issues and related "Incidental Take Permits" required for the proposed GSEP. Additionally, staff has benefited from the cooperation of the CDFG in evaluating the proposed streambed alteration agreements that would normally fall under CDFG's jurisdiction if not for the Energy Commission's "in lieu" permitting authority.

Government to Government Consultation - Notification of the Local Native American Communities

BLM staff first sent letters to various tribes on November 26th 2007. The letter provided an initial briefing on the project and a request for consultation. The letters were mailed to the following fourteen (14) recipients:

1. Mr. Richard Milanovich, Tribal Chair; Agua Caliente Band of Cahuilla Indians, 5401 Dinah Shore Drive, Palm Springs, CA 92264
2. Ms. Patricia Tuck, Tribal Historic Preservation Officer, Agua Caliente Band of Cahuilla Indians, 5401 Dinah Shore Drive, Palm Springs, CA 92264
3. Ms. Bridget Nash-Chrabascz, Tribal Historic Preservation Officer, Quechan Indian Tribe, Ft. Yuma Indian Reservation P.O. Box 1899, Yuma, AZ 85366-1899

4. Mr. Robert Martin, Chairman; Morongo Band of Mission Indians. 12700 Pumarra Rd. Banning, CA 92220
5. Ms. Sherry Cordova, Chair, Cocopah Tribal Council. County 15th and Ave,G. Somerton, AZ 85350
6. Mr. Eldred Enas, Chairman, Colorado River Tribal Council. 26600 Mojave Rd. Parker, AZ 85344
7. Mr. Darrell Mike, Chairman, Twenty-Nine Palms Band of Mission Indians. 46-200 Harrison Place, Coachella, CA 92236
8. Mr. John James, Chairman; Cabazon Band of Mission Indians. 84245 Indio Springs Rd. Indio, CA 92203-3499
9. Ms. Maryann Green, Chairperson, Augustine Band of Mission Indians. P.O. Box 846 Coachella, CA 92236
10. Mr. Timothy Williams, Chairman; Fort Mojave Tribal Council. 500 Merriman Ave. Needles, CA 92363
11. Mr. Charles Wood, Chairman; Chemehuevi Tribal Council. P. O. Box 1976 Havasu Lake, CA 92363.
12. Mr. Michael Jackson, Sr., President, Fort Yuma Quechan Tribe. P.O. Box 1899, Yuma, AZ 85366-1899
13. Mr. James Ramos, Chairman; San Manuel Band of Mission Indians. P.O. Box 266, Patton, CA 92369
14. Ms. Mary Resvaloso, Chairwoman; Torres-Martinez Desert Cahuilla Indians. P.O. Box 1160, Thermal, CA 92274-1160

Replies were received from the following three (3) Tribes requesting reports, expressing concerns, or referring to neighboring groups whom may have an interest in the project area.

1. Ms. Patricia Tuck, Tribal Historic Preservation Officer, Agua Caliente Band of Cahuilla Indians, 5401 Dinah Shore Drive, Palm Springs, CA 92264
2. Ms. Bridget Nash-Chrabascz, Tribal Historic Preservation Officer, Quechan Indian Tribe, Ft. Yuma Indian Reservation P.O. Box 1899, Yuma, AZ 85366-1899
3. Mr. Britt W. Wilson, Project Manager-Cultural Resources; Morongo Band of Mission Indians. 12700 Pumarra Rd. Banning, CA 92220

A second set of letters were mailed to tribes on November 23, 2009, identifying the Notice of Intent (NOI) and requesting for comments and/or specific concerns. The letter also designated the deadline for the comment period (December 23, 2009). These letters were sent to the same aforementioned fourteen (14) addressees.

On February 22, 2010, the BLM sent an update letter containing information about project review; CEC-BLM workshops that were held in December, 2009 and January/February, 2010; Native American input; the upcoming release of the SA/EIS; cultural resources surveys from summer 2009 and winter 2010; as well as invitations for tribes to consult on eligibility evaluations of archeological sites and the Programmatic Agreement (PA) being prepared by BLM, the State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation (ACHP).

SUMMARY OF SCOPING COMMENTS IN RESPONSE TO THE BLM'S NOTICE OF INTENT

Summary of the Scoping and Draft Comment Process

The Notice of Intent for GSEP was published in the *Federal Register* (Volume 74, No. 224) on November 23, 2009. On December 10, 2009 the CEC with participation from BLM held a publicly-noticed Informational Hearing at Blythe City Hall, Council Chambers in Blythe, California. On December 11, 2009, BLM held its primary Scoping Meeting at the University of California-Riverside, Palm Desert Campus. A draft scoping report was released for public review and comment in January 2010.

Original scoping comment letters submitted by members of the public (letters from both individuals and letters submitted by groups on behalf of members) may be reviewed upon request at the BLM Palm Springs-South Coast Field Office, 1201 Bird Center Drive, Palm Springs, California, 92262.

These scoping comment issues were identified by reviewing the comment documents received. Many of the comments identified similar issues; all of the public comment documents were reviewed and the **Introduction** section of this document provides a complete summary of the issues, concerns, and/or questions raised. Issues are grouped into one of the three following categories:

- Issues or concerns that could be addressed by effects analysis;
- Issues or concerns that could develop an alternative and/or a better description or qualification of the alternatives;
- Issues or concerns outside the scope of the Environmental Impact Statement

The matrix below reflects specific issues articulated by non-profit and community-based organizations representing members of the public interested in a wide-array of issues related to the construction and operation of the Genesis Solar Energy Project. These organizations (and others) submitted Notice of Intent (NOI) comment letters on or before December 23, 2009. Many of the NOI comments and scoping comments identified similar issues. The matrix below was developed to provide a general sense of issues articulated by these organizations. Issue-by-issue descriptions for all scoping comments are listed by technical area in the **Introduction** section of this SA/DEIS.

NOTICE OF INTENT (NOI) COMMENTS MATRIX
GENESIS SOLAR ENERGY PROJECT

NAME	DATE	PROCESS/FAST TRACK/LNP ALTERNATIVES	AIR / HEALTH	BIOLOGY / BOTANY/RES	CLIMATE CHANGE	CULTURAL / NATIVE AMERICAN	ECONOMIC/SOCIOECONOMIC	OTHER_CONSIDERATIONS/CUMULATIVE IMPACT	TRAFFIC/ACCESS	WATER/HYDROLOGY	VISUAL/VRM/AESTHETICS	WILDLIFE/T&E/HABITAT	LIGHTING/PUBLIC UTILITIES	DESIGN	FLOODING	RECREATION/OHV	SOIL/GEOLOGY	HAZMAT	NOISE	ADD TO MAILING
California Native Plant Society	12/23/2009			X				X		X	X									
California Unions for Reliable Energy (CURE)	12/23/2009		X			X	X	X		X	X	X		X			X		X	
Center for Biological Diversity	12/29/2009	X	X	X	X			X		X	X	X					X			
A McPherson, US EPA Reg. 9	12/23/2009		X	X	X	X			X											
J. Aardahl Defenders of Wildlife	12/23/2010		X	X				X				X								
Western Watersheds Project	11/30/2009		X	X	X			X		X	X	X					X			
CARE, Arturo Figueroa	12/23/2009	X	X	X	X	X	X	X		X	X	X								
M. J. Connor PH.D Western Watershed Project	12/23/2009	X	X	X	X	X		X		X	X	X					X			
Off-Road Business Association, Inc.	12/23/2009		X		X				X											

ENVIRONMENTAL JUSTICE

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," focuses federal attention on the environment and human health conditions of minority communities and calls on federal agencies to achieve environmental justice as part of this mission. The Order requires the United States Environmental Protection Agency (US EPA) and all other federal agencies to develop strategies to address this issue. The agencies are required to identify and address any disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority or low-income populations. Some agencies have also interpreted this Order as applying to state agencies that receive federal funding. Energy Commission staff assumes that the Order applies, and conducts the appropriate analysis accordingly.

This analysis is also necessary to satisfy BLM's obligations under Executive Order 12898. In considering environmental justice in energy facility siting cases, staff uses a demographic screening analysis to determine whether a low-income and/or minority population exists within the potentially affected area of the proposed site. The demographic screening is based on information contained in two documents: "Environmental Justice: Guidance Under the National Environmental Policy Act" (Council on Environmental Quality, December, 1997) and "Guidance for Incorporating Environmental Justice Concerns in EPA's Compliance Analyses" (U.S. Environmental Protection Agency, April, 1998).

The Environmental Justice screening process relies on Year 2000 U.S. Census data to determine the presence of minority and below-poverty level populations. Environmental Justice: Guidance Under the National Environmental Policy Act, defines minority individuals as members of the following groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. A minority population is identified when the minority population of the potentially affected area is:

1. greater than 50%; or
2. present in one or more US Census blocks where a minority population of greater than 50% exists.

In addition to the demographic screening analysis, staff follows the steps recommended by the U.S. EPA's guidance documents in regard to outreach and involvement; and if warranted, a detailed examination of the distribution of impacts on segments of the population.

Staff has followed each of the above steps for the following eleven (11) sections in the SA/DEIS: **Air Quality, Hazardous Materials, Land Use, Noise, Public Health, Socioeconomics, Soils and Water, Traffic and Transportation, Transmission Line Safety/Nuisance, Visual Resources, and Waste Management**. Over the course of the analysis for each of these eleven technical disciplines, staff considered potential impacts and mitigation measures, and whether there would be a significant impact on an environmental justice population. Staff determined that the remaining technical areas did not involve potential environmental impacts that could contribute to a

disproportionate impact on an environmental justice population, and so did not necessitate further environmental justice analysis for those areas.

PROJECT'S COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

Based upon the information provided, discovery achieved and analysis completed to date, staff has concluded that with just two exceptions, the implementation of its recommended mitigation measures – described in the conditions of certification – will mitigate all potential environmental impacts of the GSEP to a level of less than significant. Therefore, the project analysis complies with the requirements of the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). For a detailed review of potentially significant impacts and the related mitigation measures (conditions of certification), please refer to each chapter of this SA/DEIS.

Within the technical areas of **Air Quality** and **Transmission System Engineering**, additional information is necessary and required in regard to specific issues that are described in the sections' summary of conclusions. These are outstanding issues that will be resolved through the course of the Staff Assessment (SA) Workshops and subsequent filings, and will be reflected in a Supplemental Staff Assessment (SSA).

As noted in the **Land Use** and **Visual Resources** sections, cumulative impacts would be significant and would not be mitigated to less than significant levels. Therefore, if this project were to be approved, an override consideration may be necessary.

Staff also concludes that with implementation of staff's recommended mitigation measures described in each technical section's conditions of certification, GSEP would comply with all applicable laws, ordinances, regulations, and standards (LORS), except as described in the **Soil and Water Resources** section.

Specifically, the state of California has expressed a strong interest in developing its solar energy resources. However, the construction and operation of solar energy facilities requires the use of water, which state policy also protects. The Energy Commission must balance the state's interest in promoting solar energy development with its interest in conserving and protecting the state's water resources. GSEP proposes to use water for power plant cooling, which staff believes is contrary to the state's long term interest in maximizing solar power generation and minimizing adverse environmental impacts.

This will be an especially critical issue in the renewable development areas that will be identified in the joint state/federal Renewable Energy Action Team's Desert Renewable Energy Conservation Plan (DRECP). Therefore, staff proposes that the project prepare a Water Conservation Plan that outlines the actions necessary to bring the project cooling water use into compliance with the state's water policies. Later this year, Energy Commission staff plans to file a request for an Energy Commission Order Instituting an Informational Proceeding to address the overall issue of water use (particular groundwater use) by solar thermal power plants. For a more detailed discussion of

water policy and related LORS, see staff's technical analysis in the **Soil and Water Resources** section of this SA/DEIS.

SUMMARY OF ENVIRONMENTAL IMPACTS AND RELATED MITIGATION (FOR ENERGY COMMISSION AND CEQA PURPOSES)

With the exception of the technical areas identified below, Energy Commission staff believes that as currently proposed, including the applicant's and the staff's proposed mitigation measures and the staff's proposed conditions of certification, the proposed GSEP would comply with all applicable laws, ordinances, regulations, and standards (LORS).

Summary of Genesis Solar Energy Project SA/DEIS Technical Analyses

Technical Area	Complies with LORS	Impacts Mitigated
Air Quality	Yes	Yes
Alternatives	Not Applicable	Not Applicable
Biological Resources	Yes	Yes
Cultural Resources	Yes	undetermined
Cumulative	Yes	Yes
Efficiency	Not Applicable	Not Applicable
Facility Design	Yes	Yes
Geology and Paleontology	Yes	Yes
Hazardous Materials	Yes	Yes
Land Use	Yes	No*
Noise and Vibration	Yes	Yes
Public Health	Yes	Yes
Reliability	Not Applicable	Not Applicable
Socioeconomic Resources	Yes	Yes
Soil and Water Resources	No	Yes
Traffic and Transportation	Yes	Yes
Transmission Line Safety/Nuisance	Yes	Yes
Transmission System Engineering	Yes	Yes
Visual Resources	Yes	No*
Waste Management	Yes	Yes
Worker Safety and Fire Protection	Yes	Yes

* cumulative impacts

SUPPLEMENTAL STAFF ASSESSMENT

Based on Staff Assessment (SA) workshops and written comments, staff may refine its analysis, correct errors, and finalize conditions of certification to reflect areas where agreements have been reached with the parties, and will then publish a Supplemental Staff Assessment/Final Environmental Impact Statement (SSA/FEIS). The SSA/FEIS will be a limited document representing revisions and additions to technical areas

discussed below, rather than a document including discussion for each technical section.

Air Quality

Staff will need to receive/review a Final Determination of Compliance (FDOC) from the Mojave Desert Air Quality Management District (MDAQMD), including the review and incorporation of revisions made by MDAQMD to address staff and other party comments on the Preliminary Determination of Compliance. This analysis will likely require revisions to both staff and MDAQMD-recommended conditions of certification.

Cultural Resources

Issue discussions in the SSA will include the following:

- Mitigation for project impacts to cultural resources that will be handled in a Programmatic Agreement (PA) negotiated among all stakeholders -- federal, state, and private – including critically important resources, with ongoing input for Native American organizations. Development of the PA by the BLM and the State Historical Preservation Office is underway.
- The data compilation for the cumulative analysis is also ongoing, and that analysis will be included in the SSA.
- BLM is compiling information on its consultation with Native Americans, required by NHPA Sec. 106. An account of this consultation will be included in the SSA.

With the finalization and implementation of the PA, staff expects all project impacts will be mitigated. Staff is expecting no additional information from the applicant.

Land Use

Staff concluded that the GSEP (and its alternatives) would combine with other past and reasonably foreseeable future projects to substantially reduce scenic values of wilderness areas and recreational resources in the Chuckwalla Valley and southern California desert region and therefore, would result in a significant and unavoidable cumulative land use impact. These cumulative visual impacts would be significant in terms of CEQA, and would not be mitigated to less than significant levels. Therefore, if this project were to be approved, an override consideration would be necessary

Soil & Water Resources

Final completion of staff's analysis of the proposed project is subject to the following:

- Submittal of a Water Conservation Plan.
- Submittal of the following to the Colorado River Regional Quality Control Board (RWQCB) and County of Riverside for review and comment and to the Energy Commission for approval:
 - Engineering design detail and groundwater monitoring plans for the proposed wastewater evaporation ponds;
 - Engineering design detail and groundwater monitoring plans for the proposed Heat Transfer Fluid (HTF) fluid bioremediation units;

- Characterization of the anticipated waste streams proposed to be discharged into the evaporation ponds and bioremediation units;
 - A description of the frequency and chemical analysis of waste and a plan that describes actions that will be taken in case of a detectable release;
 - A closure plan for the evaporation ponds and bioremediation units; and
 - Demonstration that the proposed project would be in compliance with Order 2009-0009-DWQ Storm Water requirements that take effect July 1, 2010.
- Submittal of the applicant's final, 100 percent engineering and design for GSEP's storm water diversion channel(s) will need to be reviewed for final comment and approval by the Energy Commission.

Transmission System Engineering

The applicant will need to provide environmental information for downstream congestion management improvements in order for staff to finalize their analysis on proposed, necessary transmission improvements. Such improvements will be stipulated in a forthcoming (Fall 2010) Phase II Interconnection Study.

Visual Resources

Staff concluded that the proposed project would result in a substantial adverse cumulative impact to existing scenic resource values as seen from several wilderness viewing areas and Key Observation Points north of the project in the vicinity of the McCoy and Palen Mountains. These cumulative visual impacts would be significant in terms of CEQA, and would not be mitigated to less than significant levels. Therefore, if this project were to be approved, an override consideration would be necessary.

BLM'S PREFERRED ALTERNATIVE (FOR BLM AND NEPA PURPOSES)

BLM's objective is to select an alternative that is inclusive of the purpose and need of the project and adequately addresses the environmental issues while still maintaining the proposed project output. Currently, the BLM has identified the Proposed project with dry cooling as the preferred alternative in the SA/DEIS. As the BLM and CEC progress through the process, analysis of both public and agency comment will weigh heavily in the selection of the final preferred alternative that will be presented in the SSA/FEIS.

RECOMMENDATIONS

The SA/DEIS is a document of the Energy Commission staff that has been developed and written with staff from the Bureau of Land Management. Accordingly, by its very nature, the conclusions and recommendations presented herein are considered staff's analysis of the project, and its testimony hereto. In summary, this SA/DEIS finds that with one exception, the Genesis Solar Energy Project is in conformance with all LORS. Where Project impacts were identified, BLM and Energy Commission staff recommends mitigation to offset direct, indirect, and cumulative impacts and to assure compliance with state and federal laws such as the federal and state endangered species acts. With

implementation of staff's proposed conditions of certification, Project impacts would be reduced to less than significant levels.

CONCLUSIONS

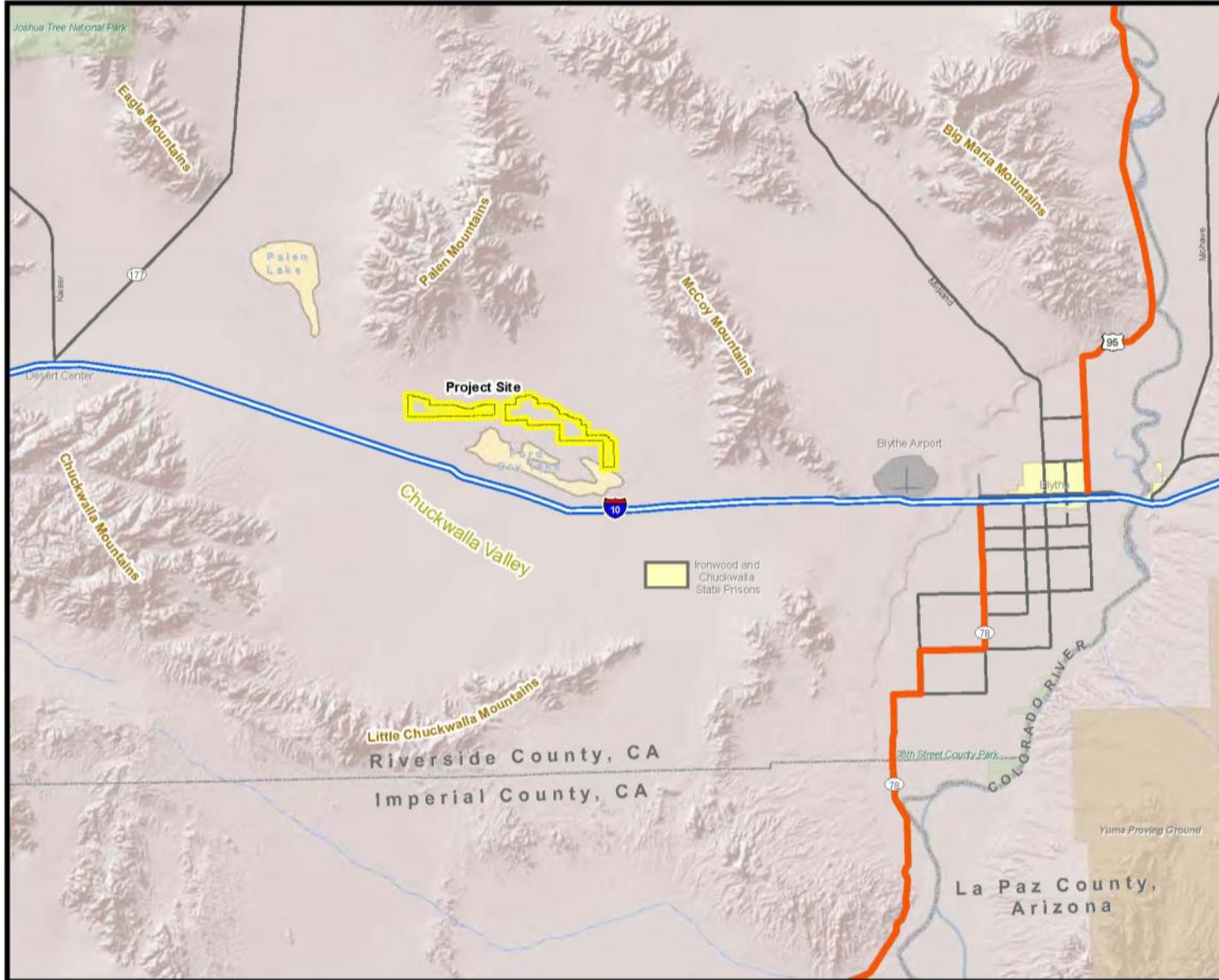
Staff will work to resolve any outstanding issues and update the SA/DEIS prior to Evidentiary Hearings, which are scheduled to commence on July 19, 2010 in Blythe, California. Based on Staff Assessment (SA) workshops planned for early May, 2010, written comments and input from the public, agencies and other parties to this proceeding, staff may refine its analyses, correct errors, and finalize conditions of certification to reflect areas where agreements have been reached with the parties. All these updates to the SA/DEIS, coupled with responses to public comments, will be reflected in the BLM/Energy Commission Supplemental Staff Assessment /Final Environmental Impact Statement (SSA/FEIS) for GSEP, currently scheduled for publication in late August, 2010.

REFERENCES

- BLM 2007a – Bureau of Land Management/J. Kalish (tn: 55562) Cultural Resources, Native American community letter. 11/26/2007
- CARE 2009a – Californians for Renewable Energy/A. Figueroa (tn:54562) Comments on NOI of the Genesis Solar Energy Project. 12/23/2009
- CBD 2009a – Center for Biological Diversity/I. Anderson (tn: 54601). Comments on the Notice of Intent to Prepare an Environmental Impact Statement. 12/29/2009
- CEC 2009b – California Energy Commission/E. Allen (tn:53587) Request for Agency Participation in the Genesis Solar Energy Project. 10/6/2009
- CURE 2010a – California Unions for Reliable Energy / T. Gulesarian (tn:54997) Comments on the Notice of Intent to Prepare an Environmental Impact Statement. 12/23/2009
- EPA 2009a – Environmental Protection Agency/A. McPherson (tn:54333) Scoping comment letter for the Genesis Solar Energy Project. 11/30/2009
- OFRD 2009a – Offroad Business Association (tn:54552) Scoping comment letter for the Genesis Solar Energy Project. 12/22/2009
- QIT 2010a – Quenchan Indian Tribe/ M. Jackson (tn: 55835) Section 106 Consultation Process Letter. 2/16/2010
- WILD 2009a – Defenders of Wildlife/J. Aardahl (tn: 54684) Issue Scoping Comments – Proposed NextEra Ford Dry Lake Solar. 12/23/2009

PROJECT DESCRIPTION - FIGURE 1
Genesis Solar Energy Project - Projection Location

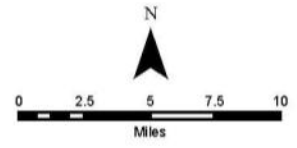
MARCH 2010



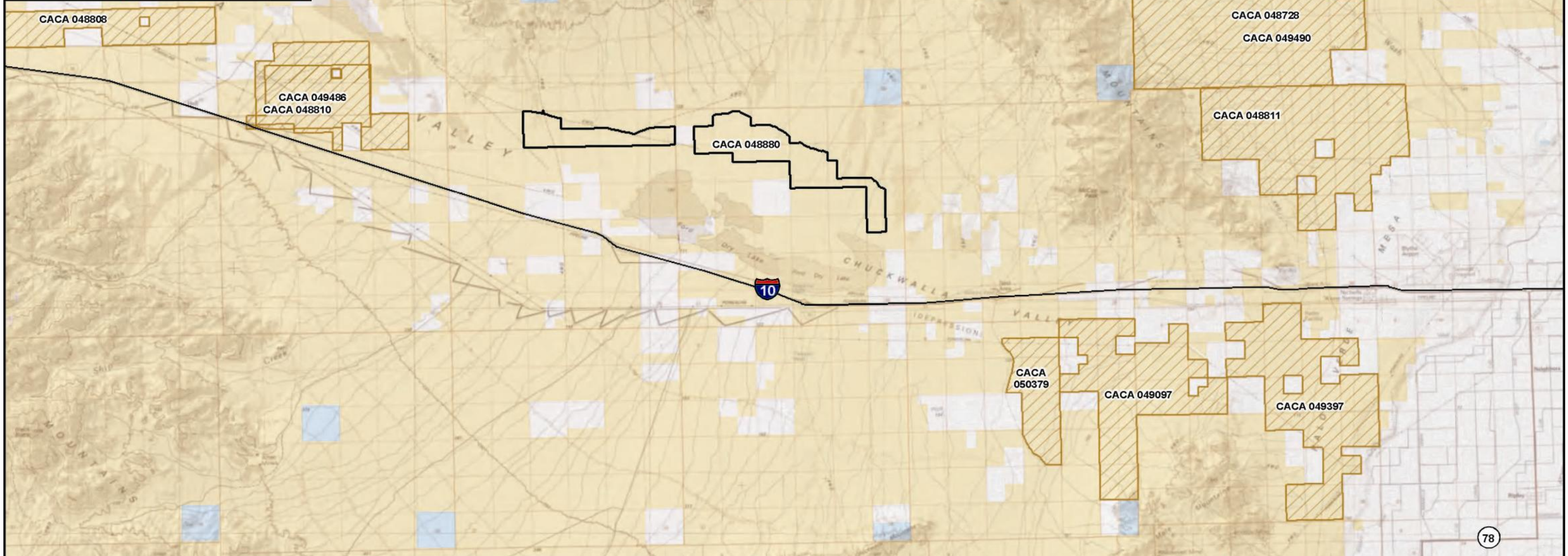
Legend

Project Site	Lake/River
Interstate	Lake Intermittent
Highway	Parks (Regional)
Major Road	Military Installation
Local Road	Urban Areas
County Boundary	Airport Area
State Boundary	

Notes:
 (a) UTM Zone 11, NAD 1983 Projection.
 (b) Source data: ESRI, BLM



PROJECT DESCRIPTION



LEGEND

- Project Boundary (4,535 acres)
- Solar Energy Projects
- Bureau of Land Management
- State
- Private/Other

Regional Setting with Vicinity Projects
NextEra Genesis - Ford Dry Lake Project
CACA 048880

US Department of the Interior
BUREAU OF LAND MANAGEMENT
 California State Office
 Sacramento, California
 (916) 978-4400
 www.ca.blm.gov

Date Prepared: 12/7/2009

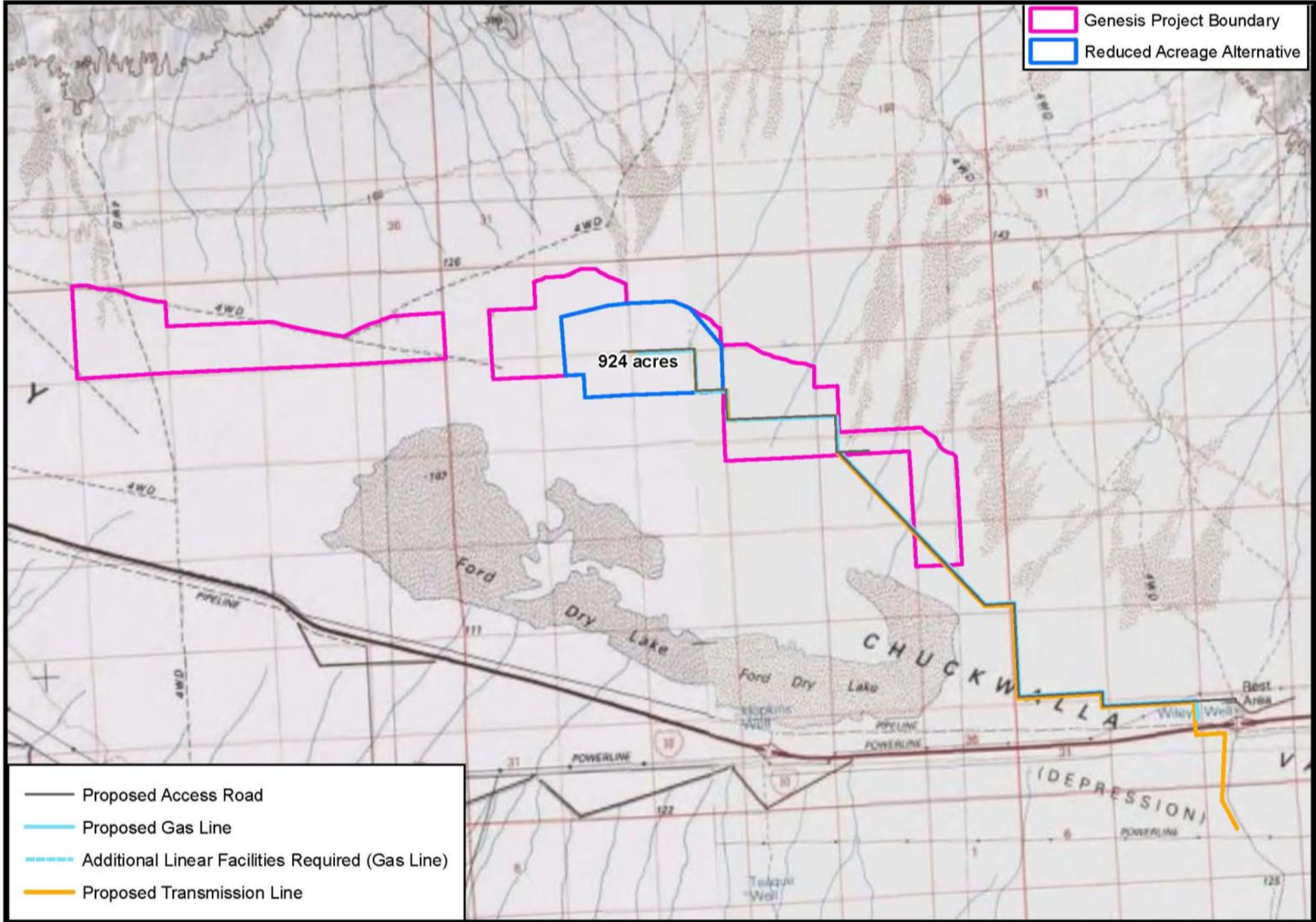
NGS TOPO 100K Image

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SCALE: 1" = 2.5 Miles (1:158,400)
 SCALE CORRECT WHEN PRINTED AT 11X17

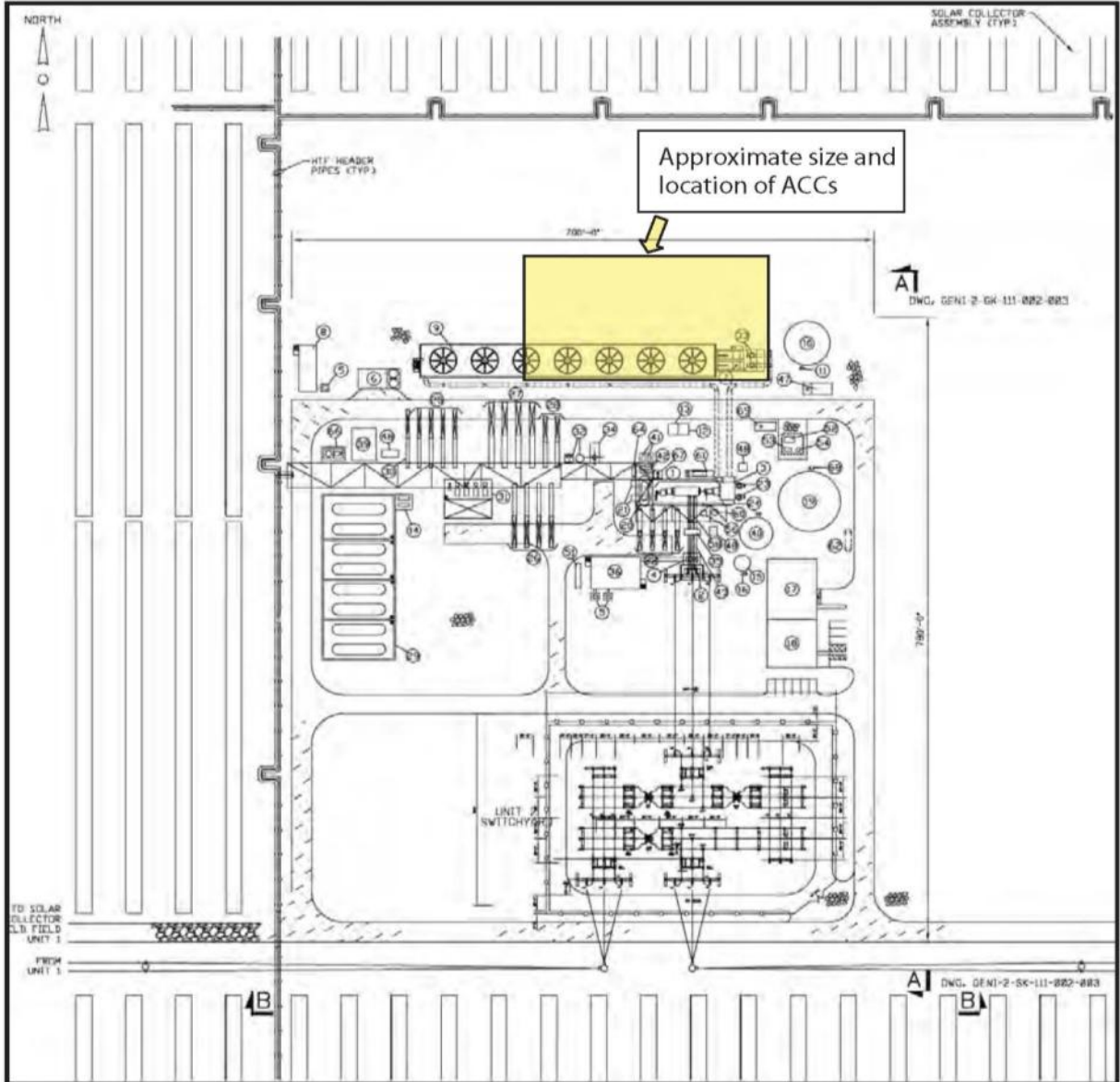
ALTERNATIVES - FIGURE 1
 Genesis Solar Energy Project - Reduced Acreage Alternative

MARCH 2010



ALTERNATIVES

ALTERNATIVES - FIGURE 2
Genesis Solar Energy Project - Dry Cooling Alternative



Shaded box indicates location of Air Cooled Condenser for one of the two Genesis power blocks.

EQUIPMENT DESCRIPTIONS

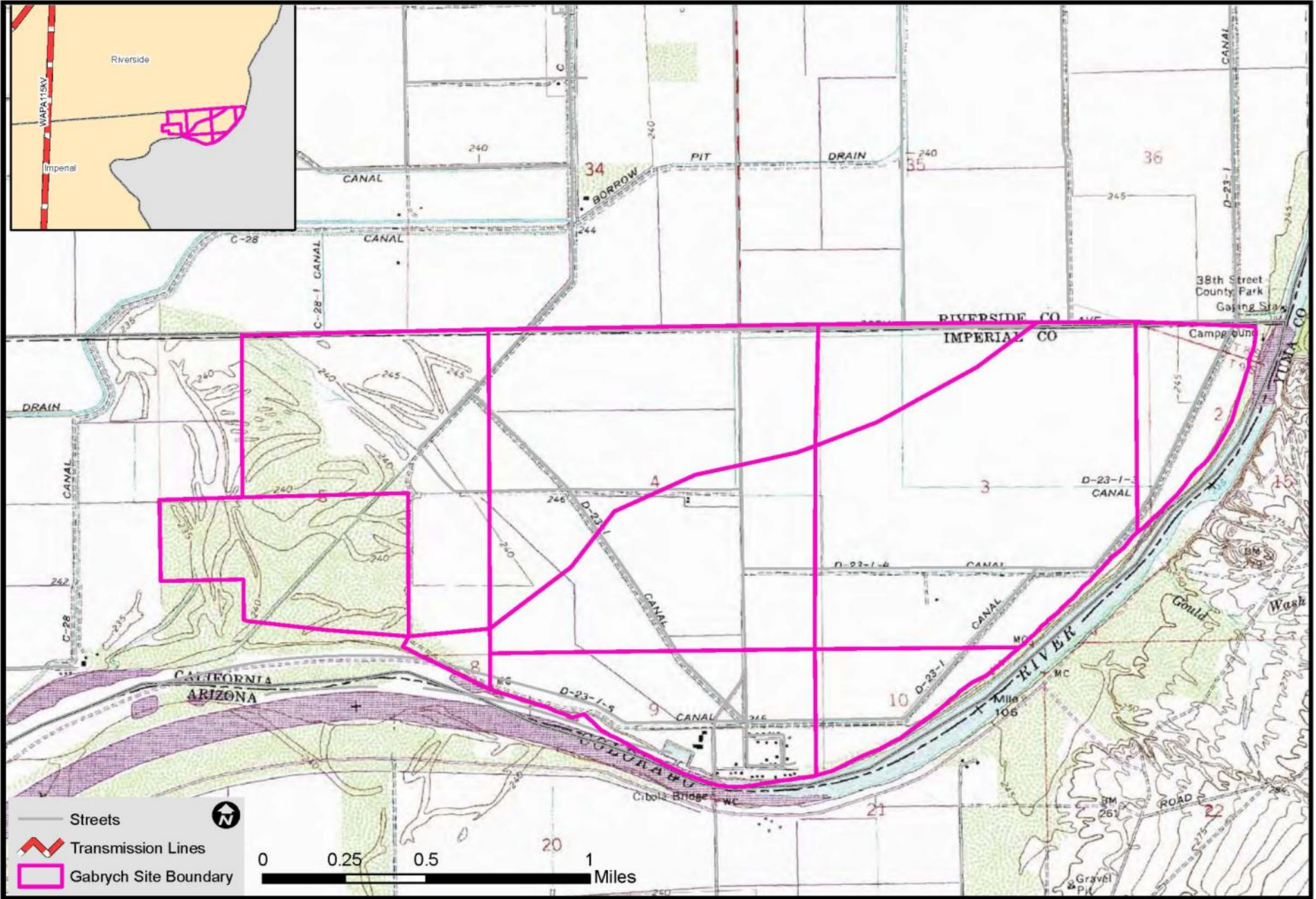
- | | |
|--|---|
| <ul style="list-style-type: none"> 1 STEAM TURBINE/GENERATOR 2 GSU TRANSFORMER 3 SURFACE CONDENSER 4 UNIT AUXILIARY TRANSFORMER 5 STATION SERVICE TRANSFORMERS 6 COOLING TOWER CHEMICAL FEED/STORAGE AREA 7 AUXILIARY COOLING PUMP (BACK-UP/START-UP) 8 COOLING TOWER ELECTRICAL ENCLOSURE 9 COOLING TOWER 10 RAW, FIRE, TANK (500,000 GAL) 11 SERVICE WATER PUMPS 12 CO2 BOTTLE STORAGE 13 H2 BOTTLE STORAGE 14 OVERFLOW TANK PUMPS 15 DEMIN WATER STORAGE TANK (40,000 GAL) 16 DEMIN WATER PUMP SKID 17 WATER TREATMENT AREA (CYCLE CHEM FEED, DEMIN TRAIN, MMF, RD, SAMPLE PANEL, LAB, AIR COMP) 18 CONTROL ROOM/WAREHOUSE BUILDING 19 TREATED WATER TANK (1,250,000 GAL) 20 DEAERATOR/STORAGE TANK/FEEDWATER HEATER 21 FEEDWATER PUMPS 22 FEEDWATER HEATERS 23 CONDENSATE PUMPS 24 GLAND STEAM CONDENSER 25 ECONOMIZERS 26 REHEATERS 27 EVAPORATORS 28 SUPERHEATERS 29 EXPANSION TANKS AND CONTAINMENT AREA 30 HTF FREEZE PROTECTION AND WARMUP HEATER (GAS-FIRED) | <ul style="list-style-type: none"> 31 HTF CIRCULATING PUMPS AND CONTAINMENT AREA 32 BLOWDOWN TANK AND SLUMP/PUMPS 33 CIRCULATING WATER PUMPS 34 AUXILIARY BOILER 35 GENERATOR CIRCUIT BREAKER 36 MAIN ELECTRICAL ENCLOSURE 37 NOT USED 38 NOT USED 39 ULLAGE SYSTEM AND CONTAINMENT AREA 40 WASTE WATER TANK (250,000 GAL) 41 CLOSED COOLING WATER HEAT EXCHANGERS 42 CLOSED COOLING WATER PUMPS 43 ISOLATED PHASE BUS DUCT 44 NOT USED 45 NOT USED 46 NOT USED 47 FIRE PUMP HOUSE 48 FIRE PROTECTION SPRINKLER HOUSE 49 NOT USED 50 NOT USED 51 10s-START DIESEL GENERATOR 52 ABOVE GROUND DIESEL FUEL STORAGE TANK (3,000 GAL) 53 DIESEL FUEL PUMP 54 WASH TRUCK DEMIN FILL STATION 55 NOT USED 56 STEAM JET AIR INJECTOR 57 NOT USED 58 EXCITATION TRANSFORMER 59 NOT USED 60 TURBINE AREA FLASH TANK 61 LUBE OIL AND EHC SKID 62 OIL/WATER SEPARATOR 63 NOT USED 64 CLOSED COOLING WATER EXPANSION TANK 65 NOT USED 66 NITROGEN BULK STORAGE AND VAPORIZER 67 EQUIPMENT BRAINS SUMP AND PUMPS 68 TREATED WATER PUMP SKID 69 EMERGENCY DIESEL GENERATOR |
|--|---|

CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION, MARCH 2010

SOURCE: GSEP 2009a, Figure 3.4-3

ALTERNATIVES - FIGURE 3
Genesis Solar Energy Project - Gabrych Alternative

MARCH 2010



ALTERNATIVES