

WASTE MANAGEMENT

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SUMMARY OF CONCLUSIONS

Management of the nonhazardous and hazardous waste generated during construction and operation of the Hidden Hills Solar Electric Generating System (HHSEGS) would not result in any significant adverse impacts, and would comply with applicable waste management laws, ordinances, regulations, and standards, provided that the measures proposed in the Application for Certification and staff's proposed conditions of certification are implemented.

INTRODUCTION

This Final Staff Assessment (FSA) presents an analysis of issues associated with wastes generated from the proposed construction and operation of the HHSEGS. The technical scope of this analysis encompasses solid wastes generated during facility construction and operation. Management and discharge of wastewater is addressed in the **Soils and Surface Water** section of this document. Additional information related to waste management may also be covered in the **Worker Safety/Fire Protection** and **Hazardous Materials Management** sections of this FSA.

The objectives of the Energy Commission staff's waste management analysis are to ensure that:

- The management of project wastes would be in compliance with all applicable laws, ordinances, regulations, and standards (LORS). Compliance with LORS ensures that material generated during the construction and operation of the proposed project would be managed in an environmentally safe manner.
- The disposal or diversion of project materials would not result in significant adverse impacts to existing waste disposal or diversion facilities.
- Upon project completion, the site is managed in such a way that project materials/wastes and waste constituents would not pose a significant risk to humans or the environment.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

The following federal, state, and local environmental laws, ordinances, regulations, and standards have been established to ensure the safe and proper management of both solid and hazardous wastes in order to protect human health and the environment. Project compliance with the various LORS (shown in **WASTE MANAGEMENT Table 1**) is a major component of staff's determination regarding the significance and acceptability of the HHSEGS with respect to management of waste.

WASTE MANAGEMENT Table 1
Laws, Ordinances, Regulations, and Standards (LORS)

Applicable Law	Description
Federal	
<p>Title 42, United States Code, §§ 6901, et seq.</p> <p>Solid Waste Disposal Act of 1965 (as amended and revised by the Resource Conservation and Recovery Act of 1976, et al.)</p>	<p>The Solid Waste Disposal Act, as amended and revised by the Resource Conservation and Recovery Act (RCRA) et al., establishes requirements for the management of solid wastes (including hazardous wastes), landfills, underground storage tanks, and certain medical wastes. The statute also addresses program administration, implementation, and delegation to states, enforcement provisions, and responsibilities, as well as research, training, and grant funding provisions.</p> <p>RCRA Subtitle C establishes provisions for the generation, storage, treatment, and disposal of hazardous waste, including requirements addressing:</p> <ul style="list-style-type: none"> • generator record keeping practices that identify quantities of hazardous wastes generated and their disposition; • waste labeling practices and use of appropriate containers; • use of a manifest when transporting wastes; • submission of periodic reports to the United States Environmental Protection Agency (U.S. EPA) or other authorized agency; and • corrective action to remediate releases of hazardous waste and contamination associated with RCRA-regulated facilities. <p>RCRA Subtitle D establishes provisions for the design and operation of solid waste landfills.</p> <p>RCRA is administered at the federal level by U.S. EPA and its 10 regional offices. The Pacific Southwest regional office (Region 9) implements U.S. EPA programs in California, Nevada, Arizona, and Hawaii.</p>
<p>Title 42, United States Code, §§ 9601, et seq.</p> <p>Comprehensive Environmental Response, Compensation and Liability Act</p>	<p>The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as Superfund, establishes authority and funding mechanisms for cleanup of uncontrolled or abandoned hazardous waste sites, as well as cleanup of accidents, spills, or emergency releases of pollutants and contaminants into the environment. Among other things, the statute addresses:</p> <ul style="list-style-type: none"> • reporting requirements for releases of hazardous substances; • requirements for remedial action at closed or abandoned hazardous waste sites and brownfields; • liability of persons responsible for releases of hazardous substances or waste; and • requirements for property owners/potential buyers to conduct “all appropriate inquiries” into previous ownership and uses of the property to 1) determine if hazardous substances have been or may have been released at the site and 2) establish that the owner/buyer did not cause or contribute to the release. A Phase I Environmental Site Assessment is commonly used to satisfy CERCLA’s “all appropriate inquiries” requirements.
<p>Title 40, Code of Federal Regulations (CFR),</p>	<p>These regulations were established by U.S. EPA to implement the provisions of the Solid Waste Disposal Act and RCRA (described above). Among other things, the regulations establish the criteria for classification</p>

<p>Subchapter I – Solid Wastes</p>	<p>of solid waste disposal facilities (landfills), hazardous waste characteristic criteria and regulatory thresholds, hazardous waste generator requirements, and requirements for management of used oil and universal wastes.</p> <ul style="list-style-type: none"> • Part 246 addresses source separation for materials recovery guidelines. • Part 257 addresses the criteria for classification of solid waste disposal facilities and practices. • Part 258 addresses the criteria for municipal solid waste landfills. • Parts 260 through 279 address management of hazardous wastes, used oil, and universal wastes (i.e., batteries, mercury-containing equipment, and lamps). <p>U.S. EPA implements the regulations at the federal level. However, California is an authorized state so the regulations are implemented by state agencies and authorized local agencies in lieu of U.S. EPA.</p>
<p>Title 49, CFR, Parts 172 and 173</p> <p>Hazardous Materials Regulations</p>	<p>U.S. Department of Transportation established standards for transport of hazardous materials and hazardous wastes. The standards include requirements for labeling, packaging, and shipping of hazardous materials and hazardous wastes, as well as training requirements for personnel completing shipping papers and manifests. Section 172.205 specifically addresses use and preparation of hazardous waste manifests in accordance with Title 40, CFR, and section 262.20.</p>
<p>State</p>	
<p>California Health and Safety Code, Chapter 6.5, §§ 25100, et seq.</p> <p>Hazardous Waste Control Act of 1972, as amended</p>	<p>This law creates the framework under which hazardous wastes must be managed in California. The law provides for the development of a state hazardous waste program that administers and implements the provisions of the federal RCRA program. It also provides for the designation of California-only hazardous wastes and development of standards (regulations) that are equal to or, in some cases, more stringent than federal requirements.</p> <p>The California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC) administers and implements the provisions of the law at the state level. Certified Unified Program Agencies (CUPAs) implement some elements of the law at the local level.</p>
<p>Title 22, California Code of Regulations (CCR), Division 4.5</p> <p>Environmental Health Standards for the Management of Hazardous Waste</p>	<p>These regulations establish requirements for the management and disposal of hazardous waste in accordance with the provisions of the California Hazardous Waste Control Act and federal RCRA. As with the federal requirements, waste generators must determine if their wastes are hazardous according to specified characteristics or lists of wastes. Hazardous waste generators must obtain identification numbers, prepare manifests before transporting the waste off site, and use only permitted treatment, storage, and disposal facilities. Generator standards also include requirements for record keeping, reporting, packaging, and labeling. Additionally, while not a federal requirement, California requires that hazardous waste be transported by registered hazardous waste transporters.</p> <p>The standards addressed by Title 22, CCR include:</p> <ul style="list-style-type: none"> • Identification and Listing of Hazardous Waste (Chapter 11, §§

	<p>66261.1, et seq.)</p> <ul style="list-style-type: none"> • Standards Applicable to Generators of Hazardous Waste (Chapter 12, §§ 66262.10, et seq.) • Standards Applicable to Transporters of Hazardous Waste (Chapter 13, §§ 66263.10, et seq.) • Standards for Universal Waste Management (Chapter 23, §§ 66273.1, et seq.) • Standards for the Management of Used Oil (Chapter 29, §§ 66279.1, et seq.) • Requirements for Units and Facilities Deemed to Have a Permit by Rule (Chapter 45, §§ 67450.1, et seq.) <p>The Title 22 regulations are established and enforced at the state level by DTSC. Some generator standards are also enforced at the local level by CUPAs.</p>
<p>California Health and Safety Code, Chapter 6.11 §§ 25404–25404.9</p> <p>Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program)</p>	<p>The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the six environmental and emergency response programs listed below.</p> <ul style="list-style-type: none"> • Aboveground Storage Tank Program • Business Plan Program • California Accidental Release Prevention (CalARP) Program • Hazardous Material Management Plan / Hazardous Material Inventory Statement Program • Hazardous Waste Generator / Tiered Permitting Program • Underground Storage Tank Program <p>The state agencies responsible for these programs set the standards for their programs while local governments implement the standards. The local agencies implementing the Unified Program are known as CUPAs. Inyo County Department Hazardous Materials Division is the area CUPA.</p> <p>Note: The Waste Management analysis only considers application of the Hazardous Waste Generator/Tiered Permitting element of the Unified Program. Other elements of the Unified Program may be addressed in the Hazardous Materials Management and/or Worker Safety/Fire Protection analyses sections.</p>
<p>Title 27, CCR, Division 1, Subdivision 4, Chapter 1, §§ 15100, et seq.</p> <p>Unified Hazardous Waste and Hazardous Materials Management Regulatory Program</p>	<p>While these regulations primarily address certification and implementation of the program by the local CUPAs, the regulations do contain specific reporting requirements for businesses.</p> <ul style="list-style-type: none"> • Article 9 – Unified Program Standardized Forms and Formats (§§ 15400–15410). • Article 10 – Business Reporting to CUPAs (§§ 15600–15620).

<p>Public Resources Code, Division 30, §§ 40000, et seq.</p> <p>California Integrated Waste Management Act of 1989.</p>	<p>The California Integrated Waste Management Act of 1989 (as amended) establishes mandates and standards for management of solid waste. Among other things, the law includes provisions addressing solid waste source reduction and recycling, standards for design and construction of municipal landfills, programs for county waste management plans, and local implementation of solid waste requirements. Also, cities and counties are required by this law to divert 50 percent of their waste from disposal. Finally, material that is exported out of state is still allocated back to the jurisdiction of origin in California.</p>
<p>Assembly Bill (AB) 341 (Chesbro) Chapter 476, Statutes of 2011</p>	<p>California State Measure AB 341 would make a legislative declaration that it is the policy goal of the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020. The bill was approved by the Governor October 5, 2011 and filed with Secretary of State October 6, 2011. AB 341 expands recycling to businesses and apartment buildings and requires the state to develop programs to recycle three quarters of the waste we generate.</p> <p>This bill requires a business, defined to include a commercial or public entity, which generates more than four cubic yards of commercial solid waste per week or is a multifamily residential dwelling of five units or more to arrange for recycling services, on and after July 1, 2012.</p>
<p>Title 24, CCR, Part 11 2010 Green Building Standards Code (CalGreen)</p>	<p>The code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. Effective January 1, 2011, in jurisdictions without a Construction and Demolition (C&D) ordinance requiring the diversion of 50 percent of construction waste, the owners/builder of newly constructed buildings within the covered occupancies will be required to develop a waste management plan and divert 50 percent of the construction waste materials generated during the project.</p>
<p>Title 14, CCR, Division 7, § 17200, et seq.</p> <p>California Integrated Waste Management Board</p>	<p>These regulations further implement the provisions of the California Integrated Waste Management Act and set forth minimum standards for solid waste handling and disposal. The regulations include standards for solid waste management, as well as enforcement and program administration provisions.</p> <ul style="list-style-type: none"> • Chapter 3 – Minimum Standards for Solid Waste Handling and Disposal. • Chapter 3.5 – Standards for Handling and Disposal of Asbestos Containing Waste. • Chapter 7 – Special Waste Standards. • Chapter 8 – Used Oil Recycling Program. • Chapter 8.2 – Electronic Waste Recovery and Recycling.
<p>California Health and Safety Code, Division 20, Chapter 6.5, Article 11.9, §25244.12, et seq.</p>	<p>This law was enacted to expand the state's hazardous waste source reduction activities. Among other things, it establishes hazardous waste source reduction review, planning, and reporting requirements for businesses that routinely generate more than 12,000 kilograms (~ 26,400 pounds) of hazardous waste in a designated reporting year. The review and planning elements are required to be done on a four-year cycle, with</p>

<p>Hazardous Waste Source Reduction and Management Review Act of 1989 (also known as SB 14).</p>	<p>a summary progress report due to DTSC every fourth year.</p>
<p>Title 22, CCR, § 67100.1 et seq. Hazardous Waste Source Reduction and Management Review.</p>	<p>These regulations further clarify and implement the provisions of the Hazardous Waste Source Reduction and Management Review Act of 1989 (noted above). The regulations establish the specific review elements and reporting requirements to be completed by generators subject to the act.</p>
<p>Title 22, CCR, Chapter 32, §67383.1 – 67383.5</p>	<p>This chapter establishes minimum standards for the management of all underground and aboveground tank systems that held hazardous waste or hazardous materials, and are to be disposed, reclaimed or closed in place.</p>
<p>Title 27, CCR , division 2, Subdivision 1, Chapter 3, Subchapter 4,</p>	<p>This regulation establishes that alternative daily cover (ADC) and other waste materials beneficially used at landfills constitutes diversion through recycling, and requires the California Integrated Waste Management Board to adopt regulations governing ADC.</p>
<p>California Porter-Cologne Water Quality Control Act of 1952: California Water Code, Division 7, Title 23, CCR, Division 3, Chapter 9</p>	<p>Requires adequate protection of water quality by appropriate design, sizing and construction of erosion and sediment controls.</p>
<p>State of Nevada Code of Regulation – Nevada Administrative Code (NAC) Section 444.440 – 444.645</p>	<p>Collection and disposal of solid waste regulations NAC 444.5705 “Class I site” defined. (NRS 444.560) “Class I site” means a disposal site which: 1. comprises at least one municipal solid waste landfill unit including all contiguous land and structures, other appurtenances and improvements on the land used for the disposal of solid waste; and 2. Is not a Class II or Class III site. NAC 444.571 “Class II site” defined. (NRS 444.560) “Class II site” means a disposal site: 1. Which is comprised of at least one municipal solid waste landfill unit; 2. Which accepts less than 20 tons of solid waste per day on an annual average; 3. For which there is no evidence of contamination of groundwater originating from the site; 4. Which serves a community that has no other practicable alternatives for waste management; and 5. Which is located in an area which annually receives no more than 25 inches of precipitation, The term includes all contiguous land and structures, other appurtenances and improvements on the land used for the disposal of solid waste.</p>

	NAC 444.5715 Class III site” defined. (NRS 444.560) “Class III site” means a disposal site which accepts only industrial solid waste.
NAC Sections 444.965 – 444.976	Hazardous Waste regulations
Local	
Policies	
Construction & Demolition (C&D) Debris Diversion Program (Inyo County Code, Title 7, Chapter 7.11)	All construction, demolition, and renovation projects within Inyo County, for which a building permit is required, shall comply with this requirement if they exceed eighteen cubic yards per day of generated construction and demolition debris.

SETTING

Proposed Project

The proposed HHSEGS will consist of two solar fields and associated facilities that will generate a total net output of 500 megawatts (MW). Solar Plant I will be located on approximately 1,483 acres. Solar Plant II will occupy approximately 1,510 acres. A 103-acre common area will consist of an administration building, warehouse, and maintenance complex and onsite switchyard. The temporary construction laydown area and parking will occupy 180 acres. The temporary construction laydown area in addition to the entire HHSEGS site would total 3,277 acres. All of these project components are located within California. The Nevada Office of the U.S. Bureau of Land Management will provide a detailed environmental impact analysis of the transmission line and the 32.4 mile natural gas pipeline alignments, most of which are in Nevada (HHSG 2011a, page 5.14-1).

The 3,277-acre project site is adjacent to the Nevada border and encompasses 172 undeveloped vacant parcels on privately owned land in Inyo County, California. The project is located along the northwest corner of Tecopa Road (also known as Old Spanish Trail Highway) and Gold Street in Inyo County. U.S. Geological Survey Topographical maps and historical aerial photographs show the undeveloped project site with graded dirt roads (in a north-south and east-west grid pattern) and vacant land, except for a former orchard area along Tecopa Road (HHSG 2011a, page 5.14-7).

Each solar plant will generate 250 MW net output for a total output of 500 MW. Each plant will use 85,000 heliostat mirror arrays, a Rankine-cycle non-reheat steam turbine, a solar receiver steam generator (SRSG), two natural-gas boilers, an air cooled condenser, associated auxiliary equipment, and a partial dry-surface air cooler (for auxiliary equipment cooling). Rows of heliostats (mirrors) would be used to concentrate solar energy on the SRSG located near the top of 750-foot distributed power tower, which converts water to steam. Steam from the SRSG will be routed via the main steam pipe to the Rankine-cycle steam turbine generator where the steam’s energy is converted to electrical energy. Each solar plant will include a natural gas-fired auxiliary boiler used to augment the solar operation when solar energy diminishes, during transient cloudy conditions and as a startup boiler

during the morning startup cycle, and a nighttime preservation boiler used to maintain system temperatures overnight. Steam condensing will be provided by air-cooled condensers. Groundwater will be treated in an onsite treatment system for use as boiler make-up water and to wash the heliostat mirror arrays.

Construction activities associated with the HHSEGS Project would produce a variety of mixed nonhazardous wastes, such as soil, wood, metal, concrete, etc. Waste would be recycled, where practical, and non-recyclable waste would be deposited in a Nevada Class III landfill licensed to accept such waste. The hazardous waste generated during this phase of the project would consist of used oils, universal wastes, solvents, and empty hazardous waste materials containers (HHS 2011a, § 5.14.2.1). Universal wastes are hazardous wastes that contain mercury, lead, cadmium, copper, and other substances hazardous to human and environmental health. Examples of universal wastes are batteries, fluorescent tubes, and some electronic devices. Hazardous waste will be disposed of in either a California or Nevada hazardous waste landfill.

Operation and maintenance of the project and associated facilities would generate a variety of wastes, including hazardous wastes. All operational wastes produced at HHSEGS would be properly collected, treated (if necessary), and disposed of at an appropriate waste facility. Wastes include process and sanitary wastewater, nonhazardous waste and hazardous waste, both liquid and solid. A septic system for sanitary wastewater would be located at the administration building/operations and maintenance area, located between Solar I and II (HHGS 2011a, page. 2-12). Each solar plant and the administration complex (located in the common area) will include a septic tank and leach field system for sanitary water streams. A thermal evaporator system will be used to reduce the volume of the process wastewater stream or stormwater streams that cannot be recycled back to the service water tank. The reject from the thermal evaporator will be trucked offsite for disposal at an approved facility (further discussion of waste water can be found in the **Water Supply** section of this **FSA**).

ASSESSMENT OF IMPACTS AND DISCUSSION OF MITIGATION

METHOD AND THRESHOLD FOR DETERMINING SIGNIFICANCE

This waste management analysis addresses: a) existing soil contamination on the project site associated with prior activities on or near the project site; and b) the impacts from the generation and management of wastes during demolition of existing structures and during project construction and operation.

- a) For any site in California proposed for the construction of a power plant, the applicant must provide documentation about the nature of any potential or existing releases of hazardous substances or contamination at the site. If potential or existing releases or contamination at the site are identified, the significance of the release or contamination would be determined by site-specific factors, including, but not limited to: the amount and concentration of contaminants or contamination; the proposed use of the area where the contaminants/contamination is found; and any potential pathways for workers, the public, or sensitive species or environmental areas to be exposed to the contaminants. Any unmitigated contamination or releases of hazardous substances that pose a risk to human

health or environmental receptors would be considered significant by Energy Commission staff.

As a first step in documenting existing site conditions, the Energy Commission's power plant site certification regulations require that a Phase I Environmental Site Assessment (ESA) be prepared¹ and submitted as part of an application for certification. The Phase I ESA is conducted to identify any conditions indicative of releases or threatened releases of hazardous substances at the site and to identify any areas near the site that are known to be contaminated (or a source of contamination).

The Phase I ESA is conducted by a qualified environmental professional. It includes inquiries into past uses and ownership of the property, former hazardous substance releases and/or hazardous waste disposal at the site and within a certain distance of the site, visual inspection of the property, and making observations about the potential for contamination and possible areas of concern. After conducting all necessary file reviews, interviews, and site observations, the environmental professional provides findings about the environmental conditions at the site. In addition, since the Phase I ESA does not include sampling or testing, the environmental professional may give an opinion about the potential need for any additional investigation. Additional investigation may be needed, for example, if there were significant gaps in the information available about the site, an ongoing release is suspected, or to confirm an existing environmental condition.

If additional investigation is needed to identify the extent of possible contamination, a Phase II ESA may be required. The Phase II ESA usually includes sampling and testing of potentially contaminated media to verify the level of contamination and the potential for remediation at the site.

In conducting its assessment of a proposed project, Energy Commission staff review the project's Phase I ESA and work with the appropriate oversight agencies, as necessary, to determine if additional site characterization work is needed and if any mitigation is necessary at the site to ensure protection of human health and the environment from any hazardous substance releases or contamination identified.

- b) Regarding the management of project-related wastes generated during demolition, construction and operation, staff reviews the applicant's proposed solid and hazardous waste management methods and determines if the methods proposed are consistent with the LORS identified for waste disposal and recycling. The federal, state, and local LORS represent a comprehensive regulatory system designed to protect human health and the environment from impacts associated with management of both non-hazardous and hazardous wastes. Absent any unusual circumstances, staff considers project compliance with LORS to be sufficient to ensure that no significant impacts would occur as a result of project waste management.

Staff then reviews the capacity available at off-site treatment and disposal sites and determines whether or not the proposed power plant's waste would have a significant

¹ Title 20, California Code of Regulations, section 1704(c) and Appendix B, section (g)(12)(A). Note that the Phase I ESA must be prepared according to American Society for Testing and Materials protocol or an equivalent method agreed upon by the applicant and the Energy Commission staff.

impact on the volume of waste a facility is permitted to accept. Staff uses a waste volume threshold equal to 10 percent of a disposal facility's remaining permitted capacity to determine if the impact from disposal of project wastes at a particular facility would be significant.

DIRECT/INDIRECT IMPACTS AND MITIGATION

Existing Site Conditions and Potential for Contamination

HHSEGS would be constructed in Inyo County on approximately 3,277 acres of privately owned land, of which 3,097 acres would be permanently disturbed. The project consists of 172 parcels of undeveloped land, with the exception of a small orchard. The project site is located along the northwest corner of the intersection of Tecopa Road (also known as "Old Spanish Trail Highway") and Gold Street in Inyo County. The project site is in the Pahrump Valley, which is situated in the southern portion of the Great Basin within the Basin and Range geomorphic province. Pahrump Valley is bordered by mountain ranges and adjoining valleys (HHS 2011a, Volume II, ESA).

The Pahrump Valley groundwater basin is located beneath a northwest-trending valley which is located in southeastern Inyo County, California and southwestern Nye County Nevada. The primary source of recharge for the basin is the Spring Mountains in Nevada. The static water level occurs at approximately 100 to 150 feet below grade in the vicinity of the subject property (HHS 2011a, Appendix 5.14A).

A Phase I Environmental Site Assessment (ESA) was conducted by Ninyo and Moore Geotechnical and Environmental Consultants for the proposed HHSEGS site. The July 5, 2011 ESA report states that the assessment did not identify any recognized environmental conditions associated with the proposed project site. The assessment was completed in accordance with the American Society for Testing and Materials Standard Practice E 1527-05 for ESAs (HHS 2011a, Appendix 5.14A). A Recognized Environmental Concern (REC) is the presence or likely presence of any hazardous substances or petroleum products on a property under the conditions that indicate an existing release, past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

The following items were observed on site. (See **WASTE MANAGEMENT FIGURES 1 and 2**):

- Small orchard (**Figure 2**)
- Trash piles of solid waste (**Figure 1**)
- Six groundwater wells, five of the wells have no down hole pumps installed, four of the wells are open to the surface, one well is located in the former orchard area and has a downhole submersible pump (**Figure 2**)
- Two 4,000-gallon aboveground fire water storage tanks (**Figure 2**)

The small, abandoned orchard is located in the south-central portion of the project site along Tecopa Road, and is approximately 10 acres in size. The orchard's operation began around

1980 and ceased in 1999. Most of the orchard area was used for growing peaches. Melons may have also been grown on a portion of the property. There are no buildings or structures on or around the orchard. There is an old well located on the south side of the property, near Tecopa Road (CH2 2011e, Data Request 38) that was one of two test wells for a February, 2012 Groundwater Pump Test (CH2 2012l, Data Response Set 2A-3) as well as a September, 2012 Supplemental Groundwater Pump Test (CH2 2012kk, Data Response, Set 2A-4).

Staff spoke with the Inyo and Mono County Agricultural Commissioner who stated that there is no registered use of pesticides or herbicides associated with the orchard (Milovich 2011). A staff person at the California Department of Pesticides confirmed that the use of organochlorine pesticides stopped in the late seventies. Also the use of lead arsenates stopped in the 1950s (Smith 2012). Since the orchard began operation in 1980 after the use of organochlorine pesticides was banned, county records do not show there has been any documented use of pesticides at the site, and the area of orchard activity was relatively small. Staff believes the potential impacts to workers and the environment is low. Although the potential is low, staff has included Condition of Certification **WASTE-1** which would require that an experienced and qualified professional engineer or professional geologist be available for consultation during site characterization, soil grading or soil excavation to determine appropriate actions to be taken in the event contaminated soil is encountered.

Construction Impacts and Mitigation

Construction of the proposed power plant and associated facilities would last approximately 29 months and generate both nonhazardous and hazardous wastes in solid and liquid forms (HHSG 2011a, page 2-2). Before construction can begin, the project owner would be required to develop and implement a Construction and Demolition (C & D) Debris Plan and implement a Construction Waste Management Plan.

Non-Hazardous Wastes

Approximately 7.5 tons of non-hazardous waste will be generated from packing materials, waste concrete, insulation and empty nonhazardous chemical containers. Twenty-four tons of metal will also be generated from welding/cutting operations, packing materials, and empty nonhazardous chemical containers (HHSG 2011a, page 5.14-10). All non-hazardous wastes would be recycled to the extent possible and non-recyclable wastes would be collected by a licensed hauler and disposed in a solid waste disposal facility, in accordance with Title 14, California Code of Regulations, section 17200 et seq. The non-hazardous waste that cannot be recycled from the HHSEGS will be disposed in a Nevada Class III landfill licensed to accept the waste (Nevada Administrative Code (NAC) Section 444.5715).

The State of Nevada is sparsely populated. The two metropolitan areas of Reno (Washoe County) and Las Vegas (Clark County) are served by large municipal solid waste landfills that account for 90 percent of all solid waste generated in the state. Landfills in Nevada are managed by three regional health districts: the Southern Nevada Health District is the solid waste management authority for Clark County; the Washoe County Health District is the solid waste management authority for Washoe County; and, the Nevada State Department of Environmental Protection is the waste authority for the remaining areas of the state (Handzo, 1/27/12). The two largest landfills (Apex in southern Nevada and Lockwood in the north)

receive about 90 percent of all the waste disposed. Reflecting the State's unprecedented population growth, the amount of solid waste disposed in Nevada has steadily increased. The importation of solid waste to Nevada has also increased significantly in recent years, gaining 700 percent for the period 1993 to 2005. Moreover, the probability for waste importation to Nevada remains high, as existing and potential new landfills become positioned to accept larger amounts of imported waste².

State of Nevada nonhazardous Class I and Class II solid waste municipal waste landfills accept municipal solid waste, including construction and demolition and some industrial waste (C&D). Class I landfills accept greater than 20 tons per day of solid waste, and Class II landfills can accept less than 20 tons per day of waste. Class III landfills, defined by Nevada Administrative Code (NAC) 444.731 are allowed to accept industrial waste. Class III landfills do not accept municipal solid waste or regulated hazardous waste.

California Department of Resources Recycling and Recovery (now CalRecycle formerly California Integrated Waste Management Board (CIWMB)) is California's authority on recycling, waste reduction, and product reuse. CalRecycle plays an important role in the stewardship of California's vast resources and promotes innovation in technology to encourage economic and environmental sustainability. Under the authority of the Integrated Waste Management Act, CalRecycle requires jurisdictions such as Inyo County to divert 50 percent of their waste from landfill disposal. Jurisdictions select and implement the combination of waste prevention, reuse, recycling, and composting programs that best meet the needs of their community while achieving the diversion requirements of the Act. SB 1016, Wiggins (Chapter 343 Statutes of 2008), introduced a per capita disposal measurement system that measures the 50 percent diversion requirement using a disposal measurement equivalent.

Each city, county or regional agency responsible for waste management must prepare and implement a CalRecycle-approved waste diversion planning document (such as a Source Reduction and Recycling Element (SRRE) or a countywide regional agency Integrated Waste Management Plan) and submit an annual report to CalRecycle summarizing its progress in reducing solid waste as required by Public Resource Code, section 41821 while implementing the plan. Inyo County has provided Cal Recycle with a SRRE and an Integrated Waste Plan. The SRRE sets forth the County's basic strategy for management of solid waste generated within its borders, with emphasis on implementation of the SRRE. Inyo County's construction and demolition (C&D) program, waste generation totals, recycling and disposal are incorporated in their SRRE.

The Inyo County Public Works Building and Safety Department (ICBS) notifies Inyo County Integrated Waste Management (IWM) when an application for a construction or demolition project is submitted. Projects that generate more than eighteen cubic yards of construction waste are required to participate in Inyo County's C & D program. Inyo County will report the results of the C & D program to CalRecycle in their annual reports. Also the county would be

² <http://ndep.nv.gov/bwm/swmp/swp01.htm>

required to report, to CalRecycle, the amount of waste material disposed of outside of the county.

The HHSEGS project owner plans to export construction waste to Nevada. According to Title 14, California Code of Regulations (CCR) Section 18808.9, a public contract hauler who exports solid waste from California shall provide the county that the waste originated from with a report of the total volume of solid waste exported from each jurisdiction. The hauler shall identify the name of the disposal site and the state, county, or other authorized jurisdiction to which the waste was sent. Adoption of Condition of Certification **WASTE-2** would ensure that the applicant complies with the County's Monitoring and Diversion of Construction and Demolition Debris Ordinance (County Code, Title 7, Chapter 7.11) and reports to Inyo County and the Energy Commission the type and volume of waste that will be transported out of California.

To facilitate proper management of project construction wastes, staff also proposes Condition of Certification **WASTE-2** requiring the project owner to develop and implement a Construction Waste Management Plan. This condition would require the applicant to identify the type and volume of waste, and waste disposal and recycling methods to be used during construction of the facility. It would also require the applicant to provide reports pursuant to CCR 18808.9. Staff believes that compliance with proposed Condition of Certification **WASTE-2** would ensure the applicant's compliance with the County Code Title 7, Chapter 7.11, CalGreen Code requirements, Title 14, California Code of Regulations, section 18808.9, and that all project construction wastes are managed appropriately.

Non-hazardous liquid wastes would also be generated during construction, including sanitary wastes, dust suppression drainage, and equipment wash water. Process wastewater will be treated onsite and recycled for use at each of the two plants. The applicant is proposing to use an evaporator system for their process wastewater. A thermal evaporator system will be used to reduce the volume of the process wastewater or stormwater that cannot be recycled back to the service water tank. The reject from the thermal evaporator will be trucked offsite for disposal at an approved facility, and domestic wastewater will be disposed in a septic tank and an onsite leach field. Therefore, no industrial wastewater or sewer pipeline is proposed to be constructed. No pipeline is needed because reject wastewater and septic tank waste would both be trucked offsite (see the **Water Supply** and **Soils and Surface Water** sections of this document for more information on the management of project wastewater). Table 5.14-2 of the Application for Certification estimates that there will be 200,000 to 400,000 gallons of passivating and chemical cleaning fluid waste used for pipe cleaning and flushing. There is also a note in the AFC that the fluid will be sampled, and if the fluid is clean, the fluid will be discharged to the surrounding area for dust control.

Hazardous Wastes

Hazardous wastes that would likely be generated during construction include solvents, waste paint, oil absorbents, used oil, oily rags, batteries, cleaning wastes, spent welding materials, and empty hazardous material containers (HHSG 2011a, Table 5.14-2). The amount of waste generated would be minor if handled in the manner identified in the AFC (HHSG 2011a, § 5.14.4.1.1). Hazardous waste generators must obtain identification numbers, prepare manifests before transporting the waste off site, and use only permitted treatment, storage,

and disposal facilities in accordance with Title 22, California Code of Regulations, Division 4.5, Chapter 12, and Section 66262.12.

The project owner would be required to obtain a unique hazardous waste generator identification number for the site prior to starting construction, pursuant to proposed Condition of Certification **WASTE-3**. Although the hazardous waste generator number is determined based on site location, both the construction contractor and the project owner/operator could be considered the generator of hazardous wastes at the site. The majority of the hazardous waste will be recycled.

Absent any unusual circumstances, staff considers project compliance with laws, ordinances, regulations and standards (LORS) to be sufficient to ensure that no significant impacts would occur as a result of project hazardous waste management activities.

Operation Impacts and Mitigation

The proposed HHSEGS would generate non-hazardous and hazardous wastes in both solid and liquid forms under normal operating conditions. Table 5.14-3 of the AFC (HHSO 2011a) gives a summary of the operation waste streams, expected waste volumes and generation frequency, and management methods proposed.

Non-Hazardous Solid Wastes

Operation of the project is expected to generate 240 tons per year of non-hazardous waste, including routine maintenance wastes (such as used air filters, spent deionization resins, sand and filter media) as well as domestic and office wastes (such as office paper, newsprint, aluminum cans, plastic, and glass). All non-hazardous wastes would be recycled, to the maximum extent possible, and non-recyclable wastes would be regularly transported off site to a Nevada solid waste disposal facility (HHSO 2011a, § 5.14.4.1.2).

Before operations can begin, the project owner should be required to develop and implement an Operation Waste Management Plan pursuant to proposed Condition of Certification **WASTE-4**. This would facilitate proper management of project operation wastes by requiring the applicant to identify the type and volume of waste, and waste disposal and recycling methods to be used, during operation of the facility. It would also require the applicant to provide reports pursuant to Title 14, Cal. Code of Regulations, Section 18808.9. Reporting in accordance with the proposed operation waste management plan would also provide the necessary information for Inyo County to demonstrate compliance with their IWMP as discussed above.

Non-Hazardous Liquid Wastes

Non-hazardous liquid wastes would be generated during facility operation and are discussed in the **Soils and Surface Water** section of this document.

Hazardous Wastes

The project owner/operator would be considered the generator of hazardous wastes at the site during facility operations. Therefore, the project owner's unique hazardous waste generator identification number, obtained prior to construction in accordance with proposed

Condition of Certification **WASTE-3**, would be retained and used for the management of hazardous liquid wastes generated during facility operation.

The generation of hazardous liquid wastes expected during routine project operation includes used hydraulic fluids, oils, greases, oily filters and rags, cleaning solutions and solvents, and batteries. In addition, spills and unauthorized releases of hazardous liquid materials or hazardous wastes may generate contaminated soils or materials that may require corrective action and management as hazardous waste. Proper hazardous materials handling and good housekeeping practices would help keep spilled wastes to a minimum. However, to ensure proper cleanup and management of any contaminated soils or waste materials generated from hazardous materials spills, staff proposes Condition of Certification **WASTE-5**, which would require the project owner/operator to report, clean up, and remediate as necessary, any hazardous materials spills or releases in accordance with all applicable federal, state, and local requirements. More information on hazardous material management, spill reporting, containment, and spill control and countermeasures plan provisions for the project are provided in the **Hazardous Materials Management** section of the **FSA**.

Less than one ton per year of hazardous wastes would be generated during the 20-year anticipated operation of the HHSEGS facility, with source reduction and recycling of wastes implemented whenever possible. The hazardous wastes would be temporarily stored on site, transported off site by licensed hazardous waste haulers, and recycled or disposed of at authorized disposal facilities in accordance with established standards applicable to generators of hazardous waste (Title 22, Cal. Code of Regulations, §§ 66262.10 et seq.). Should any operations waste management-related enforcement action be taken or initiated by a regulatory agency, the project owner would be required by proposed Condition of Certification **WASTE-6** to notify the Compliance Project Manager (CPM) whenever the owner becomes aware of any such action.

Impact on Existing Waste Disposal Facilities

Non-Hazardous Wastes

The HHSEGS facility will generate nonhazardous solid waste that will add to the total waste generated in Inyo County, California. During construction of the proposed project, approximately 1,867 cubic yards of solid waste will be generated, and approximately 1,600 cubic yards³ per year will be produced during operation. Non-hazardous waste will not be disposed in California. The solid waste landfill closest to the project site is the Tecopa Landfill. The Tecopa Landfill is currently unstaffed and does not have the infrastructure to accept waste from the HHSEGS project. Waste will be disposed in Nevada, however, the project is located in California and recycling and disposal is under the authority of CalRecycle. Solid waste from the project will be disposed of in Nye or Clark County Nevada in a Nevada Class III landfill (HHSG 2011a, page 5.14-18).

CalRecycle implements programs that are designed to increase public participation in all aspects of diverting waste from landfill disposal, including waste reduction, reuse, recycling,

³ The waste volume estimates for solid/non-hazardous waste are staff generated numbers based on approximately 300 pounds per cubic yard (HHSEGS Tables 5.14-2 and Table 5.14-3). Staff used 202 gallons per cubic yard for liquid waste, and 50 lbs per cubic foot (for sludge) as conversion factors. See <http://www.calrecycle.ca.gov/lqcentral/library/dsg/apndxi.htm>

and composting, as well as promoting the safe disposal of waste that cannot be diverted. Public Resources Code, sections 41750-41770 require counties to prepare and submit to CalRecycle a county integrated waste management plan (CIWMP). The CIWMP outlines how the county manages its waste and discusses waste management problems they may face. It also provides an overview of the actions that have and will be taken to achieve compliance in accordance with Public Resources Code, section 41780. The CIWMP includes the Source Reduction and Recycling Element (SRRE) discussed above, a Household Hazardous Waste Element (HHWE) and Non-Disposal Facility Element (NDFE). For enforcement purposes, jurisdictions are evaluated on the effectiveness of their SRRE.

Once a California jurisdiction adopts a SRRE, it must implement the SRRE to the best of its ability. The jurisdiction can update the SRRE through CalRecycle's electronic annual reporting system at any time as diversion programs need to be modified. (Vargas 2012).

To help CalRecycle determine whether a jurisdiction is taking the appropriate steps to implement its SRRE, the jurisdiction submits an annual report to CalRecycle. The annual report includes the jurisdiction's program information and per capita disposal information. The per capita disposal data is derived from the statewide disposal reporting system. CalRecycle requires the county to report to the disposal reporting system all waste disposed in the county pursuant to Title 14, Cal. Code of Regulations, sections 18800-18814.11. The disposal data is compiled for each jurisdiction to measure if the jurisdiction has met its 50 percent equivalent diversion requirement (Vargas 2012).

CalRecycle reviews each jurisdiction's annual report information and conducts site visits to verify program implementation. Depending on the particular review cycle of the jurisdiction, CalRecycle staff review the jurisdiction's progress toward implementation of its SRRE, as well as its overall achievement of the 50 percent diversion requirement.

If implementation of a jurisdiction's CalRecycle-approved SRRE does not result in 50 percent solid waste diversion, CalRecycle may do one of the following:

- Decide that, even though the waste diversion requirement has not been met, the jurisdiction's program implementation efforts are sufficient to warrant "good-faith effort" status; or
- Place the jurisdiction under a compliance order (Pub. Resources Code, §41825).

A compliance order issued by CalRecycle at a public hearing leads to the creation of a local implementation plan (LIP). The LIP outlines specific steps and a schedule of deadlines which will bring the jurisdiction into compliance with the Integrated Waste Management Act.

When a jurisdiction fails to implement the conditions of its compliance order, CalRecycle conducts a penalty hearing to determine whether to exercise its authority under Public Resources Code, section 41850 to fine the jurisdiction up to \$10,000 per day.

Inyo County submits an annual report that is reviewed by CalRecycle at a minimum of every four years to determine if it is meeting the 50 percent diversion requirement and implementing its programs. Because of the potential negative impact on Inyo County's 50 percent equivalent per capita disposal rate during the construction of the HHSEGS, staff

recommends the applicant should be required to comply with Condition of Certification **WASTE-2**. This would require the applicant to submit the necessary reports for compliance with Inyo County's Monitoring and Diversion of Construction and Demolition Debris Program and demonstrate that they have met the construction waste diversion requirements of 50 percent pursuant to the CalGreen Code⁴. The CPM, after receiving comments from the County, shall determine with the applicant if the plan is diverting recyclables to the maximum extent feasible. The applicant shall then divert all materials from the solid waste stream that can reasonably be diverted for alternate uses and required as a condition of the project's building permit.

WASTE MANAGEMENT Table 2 presents details of five non-hazardous (Class III) waste disposal facilities that could potentially take the non-hazardous construction and operation wastes that could be generated but not diverted by the HHSEGS Project facility. These Class III landfills are located in Nevada. The remaining capacity for the five landfills combined is approximately 30 million cubic yards. The total amount of non-hazardous waste generated from project construction and operation after the material has been diverted to the maximum extent feasible would contribute less than one percent of the available landfill capacity. Staff finds that disposal of the solid wastes generated by HHSEGS facility can occur without significantly impacting the capacity or remaining life of any of these facilities.

Hazardous Wastes

WASTE MANAGEMENT Table 2 displays information on the landfills in California: the Buttonwillow Landfill in Kern County, and the Kettleman Hills Landfill in King's County. The Kettleman Hills facility also accepts Class II and Class III wastes. Kettleman Hills and Buttonwillow landfills have a combined excess of 15 million cubic yards of remaining hazardous waste disposal capacity, with up to 33 years of combined remaining operating lifetime (HHS 2011a, page 5.14-.3).

Hazardous wastes generated during construction and operation would be recycled to the extent possible and practical. Those wastes that cannot be recycled would be transported off site to a permitted treatment, storage, or disposal facility. Less than 100 cubic yards of construction hazardous waste, and less than 100 cubic yards per year of operation hazardous waste would be generated from the HHSEGS facility. The total amount of hazardous wastes generated by the HHSEGS project would consume less than one percent of the remaining permitted capacity. Therefore, impacts from disposal of HHSEGS generated hazardous wastes would also have a less than significant impact on the remaining capacity at Class I landfills.

CUMULATIVE IMPACTS AND MITIGATION

The CEQA Guidelines (Cal. Code Regs., tit. 14, § 15355) define cumulative effects as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

The proposed project would not make a significant contribution to regional impacts related to new development and growth (see the **Socioeconomics** section of this **FSA**). The waste

4. <http://www.calrecycle.ca.gov>

management impacts of the proposed project, in combination with past, present and reasonably foreseeable projects in the area would not be cumulatively considerable as long as the applicant recycles to the maximum extent feasible the material generated during construction and operation and implements its recycling plans.

**WASTE MANAGEMENT Table 2
Local and Regional Landfills**

Landfill	Location	Permitted Capacity	Remaining Capacity	Estimated Closure Date
Nonhazardous	County	Cubic yards	Cubic yards	
Pahrump Valley	Nye, NV	2.5 million	N/A	2032
Republic Apex Regional	Clark, NV	6.0 million	4.8	2175
Republic Cheyenne Transfer Station	Clark, NV	N/A	N/A	N/A
Wells Cargo	Clark, NV	40.88 million	25 million	2050
US Ecology Beatty	Nye, NV	1.66 million	1 million	2020
Hazardous Waste Facilities				
US Ecology Beatty	Nye, NV	1.66 million	1 million	2020
Chemical Waste Management-Kettleman	Kings, CA	10 million*	6 million*	2044
Clean Harbors Buttonwillow	Kern, CA	14.3 million	9.2 million	2040

Source: Data Response 1D-4, Data Response 135., Table 5.14-4R3

*CalRecycle Solid Waste Information System (SWIS) facility directory 3/28/12

As proposed, the amount of non-hazardous and hazardous wastes generated during construction and operation of the HHSEGS facility would add to the total quantity of waste generated in the State of California. Project non-hazardous wastes would be generated in modest quantities, approximately 1,867 cubic yards of solid waste during construction, and 1,600 cubic yards per year during operation (HHSG 2011a, page 5.14-18). Waste recycling would be employed wherever practical, and sufficient capacity is available at several treatment and disposal facilities to handle the volumes of wastes that would be generated by the project. The five Class III landfills listed in the Table 2 have a remaining capacity of approximately 30 million cubic yards. Less than 100 cubic yards of construction hazardous waste, and less than 100 cubic yards per year of operation hazardous waste would be generated from the HHSEGS facility. Table 2 also shows that approximately 15 million cubic yards of landfill capacity is available in the Class I landfills. Bob Coyle, Vice President of Government Affairs, Republic Services of Southern Nevada, confirmed⁵ that over 2.2 million

⁵ Phone conversation between staff and Mr. Coyle on March 14, 2012

tons of waste was disposed in Clark County Nevada landfills in 2010. The proposed HHSEGS facility's contribution is insignificant and would be less than one percent of Nevada's waste generation.

One project, the St. Therese Mission, exists in the immediate vicinity of the project site. There are also three future foreseeable projects located in Nevada, near the proposed project site, including the Element Solar project, the Sandy Valley Solar project (located approximately 7 miles east), and the Pahrump Airport, which is approximately 10 miles north (see **Cumulative Effects Figure 2**). There is no landfill capacity for disposal of commercial or industrial waste in Inyo County. Future foreseeable projects would also be required to recycle to the maximum extent feasible and dispose of waste in neighboring states. No projects have been identified in the project vicinity that would create significant cumulative waste management impacts when considered together with HHSEGS.

COMPLIANCE WITH LORS

Energy Commission staff concludes that the proposed HHSEGS facility would comply with all applicable LORS regulating the management of hazardous and non-hazardous wastes during both facility construction and operation. The applicant will also comply with Conditions of Certification **WASTE-1** through **6**; these conditions require waste management and construction and demolition plans.

The applicant is required to recycle and/or dispose hazardous and non-hazardous wastes at facilities licensed or otherwise approved to accept the wastes. Because of the potential negative impact on Inyo County's 50 percent equivalent per capita disposal rate during the construction of the HHSEGS, CalRecycle will require that the applicant participate in Inyo County's Monitoring and Diversion of Construction and Demolition Debris Program. This will include the applicant providing a construction and operation waste management plan that would require approval by the Energy Commission's CPM and review by Inyo County. The project owner should also submit a plan to the CPM and Inyo County as to how it will divert, to the maximum extent feasible, the recyclable materials that are generated during operation at the facility (total materials generated are estimated to be 1,600 cubic yards per year).

The county shall determine with the applicant if the plan is diverting recyclables to the maximum extent feasible. The applicant shall then divert all materials from the solid waste stream that can reasonably be diverted based upon their approved plans (Vargas 2012). Because hazardous wastes would be produced during both project construction and operation, the HHSEGS facility would be required to obtain a hazardous waste generator identification number from U.S. EPA. The HHSEGS facility would also be required to properly store, package, and label all hazardous waste; use only approved transporters; prepare hazardous waste manifests; keep detailed records; and appropriately train employees, in accordance with state and federal hazardous waste management requirements.

RESPONSE TO AGENCY AND PUBLIC COMMENTS

Please see **Appendix 1** for Waste Management Preliminary Staff Assessment (PSA) Response to Comments.

The County of Inyo Integrated Waste Management's letter dated January 11, 2012, (received by staff February 2012, INYO 2012b) stated that the Tecopa Landfill located in Inyo County was not available for disposal of non-hazardous construction or operation solid waste. The Tecopa Landfill is not staffed and does not have the infrastructure to accept the quantity of solid waste proposed by HHSEGS. The HHSEGS applicant will dispose of construction and operation waste in a Nevada landfill.

The letter also stated that an additional cost increase of \$52,000 per year would be needed for additional municipal solid waste collection and disposal due to the influx of construction workers potentially residing in the area surrounding the Hidden Hills project site. However, there is some uncertainty concerning the exact cost of recovery required from the impact of additional waste generated by construction workers. Inyo County staff continues to discuss with the applicant the potential impacts of incoming construction workers on a number of county services, and the issue was the primary focus of the May 9, 2012 Issues Resolution Workshop in Sacramento and discussed at the PSA Workshop held June 14, 2012 in Pahrump, Nevada. While the applicant's recent (CH2 2012jj, filed October 1, 2012) peak workforce estimate assumptions were over twice those initially assumed, Staff's **Socioeconomic** analysis continues to show that no additional housing, temporary or otherwise, will be needed as a result of HHSEGS construction and operation. Moreover, there is enough available housing in the area to accommodate those workers who temporarily relocate closer to the project site during construction.

CalRecycle has provided information concerning Inyo County and their compliance with state regulations. CalRecycle provided substantial pertinent information on state LORS and requirements that would be associated with the HHSEGS project. Conditions of Certification **WASTE-2** and **WASTE-3** take into account CalRecycle Integrated Waste Management Plan objectives.

CONCLUSIONS

Consistent with the three main objectives for staff's waste management analysis (as noted in the Introduction section of this analysis), staff provides the following conclusions:

- 1) Based on its review of the applicant's proposed waste management procedures, staff concludes that project wastes would be managed in compliance with all applicable waste management LORS from both California and Nevada, recycled to the maximum extent feasible, and follows their waste management plans. Staff notes that both construction and operation wastes would be characterized and managed as either hazardous or non-hazardous waste. All non-hazardous wastes would be recycled to the maximum extent feasible, and non-recyclable wastes would be collected by a licensed hauler and disposed of at a permitted solid waste disposal facility. Hazardous wastes would be accumulated onsite in accordance with accumulation time limits (90, 180, 270, or 365 days depending on waste type and volumes generated), and then properly manifested, and transported to and disposed of at a permitted hazardous waste management facility by licensed hazardous waste collection and disposal companies.

However, to help ensure and facilitate ongoing project compliance with LORS, staff proposes Conditions of Certification **WASTE-1** through **6**. These conditions would require the project owner to do all of the following:

- Ensure the project site is investigated and any contamination identified is remediated, as necessary, with appropriate professional and regulatory agency oversight (**WASTE-1**).
- Comply with local and state waste recycling and diversion requirements (**WASTE-2**).
- Obtain a hazardous waste generator identification number (**WASTE-3**).
- Ensure that all spills or releases of hazardous substances are reported and cleaned up in accordance with all applicable federal, state, and local requirements (**WASTE-5**),
- Prepare a Construction and Operation Waste Plan that details the types and volumes of waste to be generated and how wastes would be managed, recycled, and/or disposed of after generation (**WASTE-2** and **WASTE-4**).
- Report any waste management-related LORS enforcement actions and how violations would be corrected (**WASTE-6**).

- 2) Although the ESA established that there were no RECs, potentially contaminated soil could be encountered during excavation activities at the project site or the linear facilities and staff is concerned that the environment and/or human health could be potentially exposed to unforeseen contaminants. To ensure that the project site is investigated and remediated, as necessary, and to reduce any impacts from prior or future hazardous substance or hazardous waste releases at the site to a level of insignificance, staff proposes Conditions of Certification **WASTE-1** and **WASTE-6**. These conditions would require the project owner to ensure that the project site is investigated and remediated as necessary; demonstrate that project wastes are managed properly; and ensure that any future spills or releases of hazardous substances or wastes are properly reported, cleaned up, and remediated as necessary. Therefore, staff concludes that construction and operation of the proposed HHSEGS Project would not result in contamination or releases of hazardous substances that would pose a substantial risk to human health or the environment.
- 3) Regarding impacts of project wastes on existing waste disposal facilities, staff uses a waste volume threshold equal to ten (10) percent of a disposal facility's remaining capacity to determine if the impact from disposal of project wastes at a particular facility would be significant. The existing available capacity for the three Class III landfills that may be used to manage nonhazardous project wastes exceeds 53 million cubic yards. The total amount of nonhazardous wastes generated from construction and operation of the proposed HHSEGS Project would consume less than 1 percent of the remaining landfill capacity. Therefore, disposal of project generated non-hazardous wastes would have a less than significant impact on Class III landfill capacity.

In addition, the two Class I disposal facilities that could be used for hazardous wastes generated by the construction and operation of the HHSEGS project have a combined remaining capacity in excess of 10 million cubic yards. The total amount of hazardous wastes generated by the HHSEGS project would consume less than 1 percent of the remaining permitted capacity. Therefore, impacts from disposal of HHSEGS generated hazardous wastes would also have a less than significant impact on the remaining capacity at Class I landfills.

- 4) Staff has reviewed **Socioeconomics Figure 1** which shows the environmental justice population is not greater than fifty percent within a six-mile radius of the proposed **HHSEGS**. Energy Commission staff has not identified any significant adverse direct or cumulative **Waste Management** impacts resulting from the construction or operation of the proposed project, including impacts to the environmental justice population. Therefore, there is no **Waste Management** environmental justice issue related to this project, as there is no disproportionately high and adverse human health or environmental effects on any population, including minority or low-income populations.

PROPOSED FINDINGS OF FACT

Based on the evidence, we propose the following findings of fact:

1. Applicant's Phase I Environmental Site Assessment (ESA) for the site and linear corridors did not identify any recognized environmental conditions (RECs).
2. The HHSEGS project will generate a number of hazardous and non-hazardous wastes during construction and operation,
3. All hazardous and non-hazardous wastes generated in association with project construction and operation will be recycled, reused or remediated to the maximum extent practical.
4. Project-related wastes that cannot be recycled, reused or remediated will be disposed of in appropriate landfills for hazardous and non-hazardous wastes.
5. Disposal of project-related hazardous and non-hazardous wastes at appropriate landfill sites will not result in significant adverse impacts to the capacity or remaining operation life of any of the noted existing facilities.
6. The conditions of certification set forth below and in the **Water Supply** and **Soils and Surface Water** sections of this **FSA**, along with the HHSEGS project design measures, will ensure that the HHSEGS project will reduce potential project related waste management impacts to less than significant levels.
7. With implementation of the conditions of certification listed below, the HHSEGS project will comply with all applicable LORS related to waste management.
8. Disposal of project wastes will not result in any significant direct, indirect or cumulative impacts on existing waste disposal facilities.

PROPOSED CONDITIONS OF CERTIFICATION

WASTE-1 The project owner shall provide the resume of an experienced and qualified professional engineer or professional geologist, who shall be available for consultation during site characterization (if needed), excavation, and grading activities, to the CPM for review and approval. The resume shall show experience in remedial investigation and feasibility studies.

The professional engineer or professional geologist shall be given full authority by the project owner to oversee any earth moving activities that have the potential to disturb contaminated soil, and to determine appropriate actions to be taken.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall submit the resume to the CPM for review and approval.

WASTE-2 The project owner shall prepare a Construction Waste Management Plan for all wastes generated during construction of the facility, and shall submit the plan to the CPM for review and approval. The plan shall contain, at a minimum, the following:

- a description of all construction waste streams, including projections of frequency, amounts generated, and hazard classifications;
- management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans;
- a method for collecting weigh tickets or other methods for verifying the volume of transported and or location of waste disposal; and,
- a method for reporting to demonstrate project compliance with construction waste diversion requirements of 50 percent pursuant to the CalGreen Code and Construction and Demolition Ordinance Inyo County Code, Title 7, Chapter 7.11.

Verification: The project owner shall submit the Construction Waste Management Plan to Inyo County for review and the CPM for review and approval no less than 30 days prior to the initiation of construction activities at the site.

The project owner shall also document in each monthly compliance report (MCR) the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Construction Waste Management Plan; and update the Construction Waste Management Plan, as necessary, to address current waste generation and management practices.

WASTE-3 The project owner shall obtain a hazardous waste generator identification number from the United States Environmental Protection Agency prior to generating any hazardous waste during construction and operations.

Verification: The project owner shall keep a copy of the identification number on file at the project site and provide documentation of the hazardous waste generation and notification and receipt of the number to the CPM in the next scheduled MCR after receipt of the number. Submittal of the notification and issued number documentation to the CPM is only needed once unless there is a change in ownership, operation, waste generation, or waste characteristics that requires a new notification to USEPA. Documentation of any new or revised hazardous waste generation notifications or changes in identification number shall be provided to the CPM in the next scheduled compliance report.

WASTE-4 The project owner shall prepare an Operation Waste Management Plan for all wastes generated during operation of the facility and shall submit the plan to the CPM for review and approval. The plan shall contain, at a minimum, the following:

- a detailed description of all operation and maintenance waste streams, including projections of amounts to be generated, frequency of generation, and waste hazard classifications;
- management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans;
- information and summary records of conversations with the local Certified Unified Program Agency and the Department of Toxic Substances Control regarding any waste management requirements necessary for project activities. Copies of all required waste management permits, notices, and/or authorizations shall be included in the plan and updated as necessary;
- a detailed description of how facility wastes will be managed and any contingency plans to be employed in the event of an unplanned closure or planned temporary facility closure; a detailed description of how facility wastes will be managed and disposed of upon closure of the facility; and,
- an explanation to the CPM and Inyo County demonstrating how they will divert operation material to the maximum extent feasible.

Verification: The project owner shall submit the Operation Waste Management Plan to the CPM for approval no less than 30 days prior to the start of project operation. The project owner shall submit any required revisions to the CPM within 20 days of notification from the CPM that revisions are necessary.

The project owner shall also document in each annual compliance report (ACR) the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan; and update the

Operation Waste Management Plan, as necessary, to address current waste generation and management practices.

WASTE-5 The project owner shall ensure that all spills or releases of hazardous substances, hazardous materials, or hazardous waste are documented and cleaned up and that wastes generated from the release/spill are properly managed and disposed of in accordance with all applicable federal, state, and local requirements. The project owner shall document management of all unauthorized releases and spills of hazardous substances, hazardous materials, or hazardous wastes that are in excess of EPA's reportable quantities (RQ), that occur on the project property or related linear facilities during construction and on the property during operation. The documentation shall include, at a minimum, the following information:

- location of release;
- date and time of release;
- reason for release; volume released;
- how release was managed and material cleaned up;
- amount of contaminated soil and/or cleanup wastes generated;
- if the release was reported;
- to whom the release was reported;
- release corrective action and cleanup requirements placed by regulating agencies;
- level of cleanup achieved; actions taken to prevent a similar release or spill; and,
- disposition of any hazardous wastes and/or contaminated soils and materials that may have been generated by the release.

Verification: A copy of the unauthorized release/spill documentation shall be provided to the CPM within 30 days of the date the release was discovered.

WASTE-6 Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority related to the HHSEGS, the project owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.

Verification: The project owner shall notify the CPM in writing within 10 days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the way project-related wastes are managed.

REFERENCES

- CEC 2011e – California Energy Commission/M. Monasmith (tn: 62595) Data Request Set 1A. 10/17/2011
- CEC 2011f – California Energy Commission/M. Monasmith (tn: 62786) Data Request Set 1B (#51-76). 11/04/2011
- CEC 2011g – California Energy Commission/M. Monasmith (tn: 62911) Data Requests, Set 1C. 11/17/2011
- CEC 2011h – California Energy Commission/M. Monasmith (tn: 63062) Data Request Set 1D. 12/06/2011
- CEC 2011r – California Energy Commission/M. Monasmith (tn: 62873) Photos of 10-27-11 Field Trip and 11-3-11 Site Visit. 11/10/2011
- CEC 2011t – California Energy Commission/M. Monasmith (tn: 62811) Revised Data Request Set 1B. 11/07/2011
- CEC 2012a – California Energy Commission/M. Monasmith (tn: 63340) Data Requests Set 2A. 01/09/2012
- CEC 2012b – California Energy Commission/M. Monasmith (tn: 63390) Data Requests Set 2B. 01/17/2012
- CEC 2012c – California Energy Commission/M. Monasmith (tn: 63392) Status Report #1. 01/17/2012
- CEC 2012d – California Energy Commission/L. Worrall (tn: 63485) Report of Conversation with J. Orr, Local 525. 01/23/2012
- CEC 2012e – California Energy Commission/E. Townsend-Hough (tn: 63487) ROC with J. Hanzo re: Waste Management. 01/27/2012
- CEC 2012f – California Energy Commission/M. Monasmith (tn: 63540) Data Requests Set 2C. 02/03/2012
- CH2 2011c – CH2MHill/J. Carrier (tn: 62913) Applicant's Data Responses, Set 1A. 11/16/2011
- CH2 2011d – CH2MHill/J. Carrier (tn: 63056) Applicant's Data Responses, Set 1B. 12/05/2011
- CH2 2011e – CH2MHILL/J. Carrier (tn: 62057) Applicant's Attachment DR20-1 Omitted from Data Response Set 1A. 12/05/2011
- CH2 2011f – CH2MHill/J. Carrier (tn: 63168) Applicant's Data Responses, Set 1C. 12/19/2011

CH2 2011g – CH2MHILL/J. Carrier (tn: 63259) Supplemental Data Response 1A. 12/30/2011

CH2 2011h – CH2MHILL/J. Carrier (tn: 63262) Supplemental Data Response 1B-2.
12/30/2011

CH2 2012a – CH2MHill/J. Carrier (tn: 63310) Applicant's Data Responses, Set 1D.
01/06/2012

CH2 2012b – CH2MHill/M. Finn (tn: 63425) Applicant's Data Responses, Set 1D-2.
01/20/2012

CH2 2012c – CH2MHill/J. Carrier (tn: 63499) Applicant's Data Responses, Set 1B-3.
01/31/2012

CH2 2012d – CH2MHill/J. Carrier (tn: 63635) Applicant's Data Response, Set 2A. 02/09/2012

CH2 2012e – CH2MHill/J. Carrier (tn: 63661) Applicant's Data Response, Set 2B. 02/16/2012

CH2 2012f – CH2MHill/J. Carrier (tn: 63792) Applicant's Data Response, Set 1D-4.
02/24/2012

CH2 2012g – CH2MHill/M. Finn (tn: 63961) Applicant's Data Response Set 1B-4 E-Copy.
3/5/2012

CH2 2012h – CH2MHill/M. Finn (tn: 63966) Applicant's Data Response Set 2C. 3/5/2012

CH2 2012i – CH2MHill/J. Carrier (tn: 64052) Applicant's Data Response Set 2A-2. 3/8/2012

CH2 2012j – CH2MHill/ M. Finn (tn: 64163) Applicant's Data Response Set 1B-5. 3/15/2012

CH2 2012k – CH2MHill/J. Carrier (tn: 64364) Applicant's Data Response Set 1C-2.
3/23/2012

CH2 2012l – CH2MHill/M. Finn (tn: 64505) Applicant's Data Response Set 2A-3. 3/30/2012

CH2 2012m – CH2MHill/J. Carrier (tn: 64509) Applicant's Data Response Set CBD-1.
3/30/2012

CH2 2012n – CH2MHill/J. Carrier (tn: 64513) Applicant's Data Response Set 1D-5.
3/30/2012

CH2 2012o – CH2MHill/J. Carrier (tn: 64579) Applicant's Data Response Set 1A-2. 3/30/2012

CH2 2012p – CH2MHill/J. Carrier (tn: 64558) Supplemental Data Response, Set 2, Boiler
Optimization Plan and Design Change. 4/2/2012

CH2 2012q – CH2MHill/J. Carrier (tn: 63792) Applicant's Data Response, Set 2D – E Copy.
4/2/2012

CH2 2012jj – CH2MHill/J. Carrier (tn: 67434) Applicant's Updated Workforce Analysis.
10/01/2012

CH2 2012kk– CH2MHill/J. Carrier (tn: 67576) Applicant's Data Response 141-2 – Long-term
Aquifer Performance Test. 10/05/2012

ESH 2012b – Ellison, Schneider & Harris/ Samantha G. Pottenger (tn: 63560) Applicants
Response to Staff Data Request #146. 02/06/2012

HHSO 2011a – BrightSource Energy/J. Woolard (tn: 61756) Application for Certification,
Volume 1 & 2. 08/5/2011

HHSO 2011b – BrightSource Energy/C. Jensen (tn: 62125) Supplement to AFC for
HHSEGS. 09/07/2011

HHSO 2011c – BrightSource Energy/C. Jensen (tn: 62322) AFC Supplement B. 09/23/2011

INYO 2012b – Inyo County/K. Carunchio (tn: 63719) Inyo County Letter regarding Preliminary
Estimates for the Fiscal Impacts of the Construction and Operation. HHSEGS.
02/16/2012

INYO 2012e – Inyo County/J. Hart (tn: 64136) Inyo County Letter to BrightSource Energy.
3/9/12

Milovich 2011 – California Energy Commission/E. Townsend-Hough. ROC with George
Milovich, Inyo & Mono Agricultural Commissioner. 12/13/2011.

Smith 2012.-. – California Energy Commission/E. Townsend-Hough. ROC with Cliff Smith,
California Department of Pesticides.

Vargas 2012 – California Energy Commission/E. Townsend-Hough. Written comments from
Melissa Vargas, Supervising Integrated Waste Management Specialist I, CalRecycle
03/16/12.

WASTE MANAGEMENT

List of Comment Letters

Traffic & Transportation Comments?

1	Inyo County	X
2	Bureau of Land Management	
3	National Park Service	
4	The Nature Conservancy	
5	Amargosa Conservancy	
6	Basin & Range Watch	
7	Pahrump Paiute Tribe	
8	Richard Arnold, Pahrump Piahute Tribe	
9	Big Pine Tribe of Owens Valley	
10	Intervenor Cindy MacDonald	X
11	Intervenor Center for Biological Diversity	
12	Intervenor, Old Spanish Trail Association	
13	Applicant, BrightSource Energy, Inc.	X

Comment #	DATE	COMMENT	RESPONSE
1	July 17, 2012	Inyo County	
1.8		...the County objects to using any private lands within Inyo county for mitigation purposes.	No Comment
1.110		The response to the County's estimate of waste management costs seems superficial at best, concluding that "at this time, the staff believes that no additional costs will be incurred by the County for this project". As far as we can tell, this belief is based on the fact that housing conditions at Ivanpah were such that no additional waste management costs were induced. Furthermore it was stated that Ivanpah is very close to Primm, which has a large supply of transient housing with considerable vacancies available in housing, and infrastructure capable of handling waste generated by additional residents.	Staff acknowledges the county's comments, however, Socioeconomics staff's analysis suggests that no additional housing will be needed during the project construction and additional municipal waste services will not be required.

Appendix 1 -- PSA Response to Comments, Waste Management

<p align="center">1.111</p>		<p>As we read it, the position ascribed to the staff in the Socioeconomic and Fiscal Impact Report authored by Dr. McCann, is that it is just too early to tell whether additional waste disposal services will be required during the construction or operation of the project. If and when the need for such facilities and costs arise as a result of the project, how will the County go about getting a determination that these costs are necessary for health and safety? Secondly, assuming that the need for such facilities is self-evident, who will be judged to be responsible for paying these costs, and will that judgment be enforced.</p>	<p>Staff acknowledges the county's comments, however, Socioeconomics staff's analysis suggests that no additional housing will be needed during the project construction and additional municipal waste services will not be required.</p>
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<p align="center">Comment #</p>	<p align="center">DATE</p>	<p align="center">COMMENT</p>	<p align="center">RESPONSE</p>
<p align="center">10</p>	<p align="center">July 21, 2012</p>	<p align="center">Intervenor Cindy MacDonald</p>	
<p align="center">10.1</p>	<p>18.1, #1 (page 18-1)</p>	<p>What are the applicable LORS regarding waste disposal requirements for industrial zones in the Inyo County General Plan or related zoning laws and/or ordinances?</p>	<p>Construction & Demolition (C&D) Debris Diversion Program (Inyo County Code, Title 7, Chapter 7.11)</p>
<p align="center">10.2</p>	<p>18.1, #2 (page 18-1)</p>	<p>Do California and/or Inyo County allow industrial facilities to discharge waste that could potentially seep into underground water tables residing below the proposed project site?</p>	<p>There are no wastes from the Hidden Hills Project that would/could seep in to the underground water table if the applicant followed all California and Inyo County regulations. Also, refer to Hazardous Materials and Soils and Surface Water sections of this FSA.</p>
<p align="center">10.3</p>	<p>18.1, #3 (page 18-1)</p>	<p>If so, are there any restriction on what can be discharged into leach fields and under what authority (LORS) are these restrictions established?</p>	<p>Please refer to the Soils and Surface Water section of this FSA.</p>

Appendix 1 -- PSA Response to Comments, Waste Management

<p align="center">10.4</p>	<p align="center">18.2, #1 (page 18-2)</p>	<p>What waste disposal system is going to be utilized for the proposed HHSEGS, septic tanks with leach fields or septic tanks without leach fields that require sanitary wastes to be disposed of offsite?</p>	<p>Please refer to the Soils and Surface Water section of this FSA.</p>
<p align="center">10.5</p>	<p align="center">18.2, #2 (page 18-2)</p>	<p>If the septic tank/leach field system is utilized, what are the impacts of discharging this waste into the surrounding environment such as soils and above local water tables?</p>	<p>Please refer to the Soils and Surface Water section of this FSA.</p>
<p align="center">10.6</p>	<p align="center">18.2, #3 (page 18-2)</p>	<p>Since no detailed description or critical analysis has yet to occur regarding the engineering and design element of the pipe and drainage systems in relation to the septic tank/leach field waste disposal systems, how can the CEC Staff and/or public know if hazardous wastes and semi-hazardous wastes can potentially be disposed of and discharged into the surrounding environment via the septic tank/leach field system?</p>	<p>Please refer to the Soils and Surface Water section of this FSA.</p>
<p align="center">10.7</p>	<p align="center">18.2, #4 (page 18-3)</p>	<p>What data is available that can confirm no hazardous or semi-hazardous materials will be disposed of via the septic tank/leach system?</p>	<p>Please refer to the Soils and Surface Water section of this FSA.</p>
<p align="center">10.8</p>	<p align="center">18.2, #5 (page 18-3)</p>	<p>Where is the engineering design description in the AFC project data (or subsequent documents) that clearly depicts the septic tank/leach field systems will only be connected to toilets, showers, and sinks associated exclusively with domestic type waste disposal?</p>	<p>Please refer to the Soils and Surface Water section of this FSA.</p>
<p align="center">10.9</p>	<p align="center">18.2, #6 (page 18-3)</p>	<p>If the septic tank/leach field system is utilized, what mitigation measures can be used to prevent potential soils and underground water systems from being effected by cumulative waste discharges over the life of the proposed project?</p>	<p>Please refer to the Soils and Surface Water section of this FSA.</p>

Appendix 1 -- PSA Response to Comments, Waste Management

<p align="center">10.10</p>	<p align="center">18.2, #7 (page 18-3)</p>	<p>Would Staff recommend as a Condition of Certification, the allowance of onsite septic tanks but eliminate the connected leach fields to ensure the applicant would have to dispose of all wastes offsite versus allowing wastes to seep into local soils and groundwater over the life of the project?</p>	<p>Please refer to the Soils and Surface Water section of this FSA.</p>
<p align="center">10.11</p>	<p align="center">18.3, #1 (page 18-4)</p>	<p>What is the percentage of increases for solid and hazardous waste generated by the proposed project compared to currently generated solid and hazardous wastes within a six-mile radius of the proposed project's vicinity?</p>	<p>It is estimated that HHSEGS will generate approximately 280 tons of solid waste (non-hazardous waste) during construction and about 240 tons per year from operation. The total non-hazardous waste landfilled in Inyo County in 2010 was 24,303 tons. The percentage using the most conservative number is 1.2 percent of the amount of non-hazardous waste disposed of in Inyo County in 2010. The nearest Class III landfill is over 20 miles from the western boundary of the Hidden Hills project site. There will be approximately 4 tons per year of hazardous waste generated and disposed for the project. This would be 0.77 percent of the total of the remaining Class I waste capacity in California. The nearest Class I landfill is 320 miles away. Note that the percentage for hazardous material is very low is also extremely conservative, the figure does not take into account that 90% of the material will be recycled.</p>

Appendix 1 -- PSA Response to Comments, Waste Management

<p align="center">10.12</p>	<p>18.3, #2 (page 18-4)</p>	<p>Based on a site specific analysis of generated wastes resulting from the proposed project should it be approved compared to currently existing generated wastes within a six-mile radius of the proposed project, would the CEC staff still find impacts of solid and hazardous wastes increases less than significant?</p>	<p>Staff believes that there are no significant or potentially significant issues surrounding solid or hazardous waste disposal from the Hidden Hills project in either California or Nevada. The majority of non-residential, non-hazardous waste is from county road work and is disposed of in Inyo County landfills.</p>
<p align="center">10.13</p>	<p>18.4, #1 (page 18-5)</p>	<p>What is the cumulative significance of continuing to place undue burdens on the State of Nevada to fulfill California's waste disposal obligations for the projects it approves?</p>	<p>Staff believes that there are no significant or potentially significant cumulative issues surrounding solid or hazardous waste disposal from the Hidden Hills project in either California or Nevada.</p>

Appendix 1 -- PSA Response to Comments, Waste Management

<p align="center">10.14</p>	<p>18.4, #2 (page 18-5)</p>	<p>If the proposed project is approved, it can potentially cause cumulative growth inducing impacts to the area, none of which can be serviced by Inyo County or the State of California. At what point will California take responsibility for the wastes generated in this area and develop adequate infrastructure components to address the areas needs?</p>	<p>Staff believes that there are no significant or potentially significant issues surrounding solid or hazardous waste disposal from the Hidden Hills project in either California or Nevada. The majority of non-residential, non-hazardous waste is from county road work and is disposed in Inyo County landfills. CalRecycle has a Local Assistance and Market Development Program to assist counties with landfill and recycling needs.</p>
<p align="center">10.15</p>	<p>18.5, #1 (page 18-7)</p>	<p>Based on the identified issues surrounding site access in relation to adequate roadways and California Vehicle Code, Section 31303, is the only viable disposal site for hazardous wastes located in Nevada?</p>	<p>The nearest Class I landfill, Kettleman City, that is available for disposal is 320 miles away therefore, Nevada is the most convenient area to dispose of hazardous waste.</p>

Appendix 1 -- PSA Response to Comments, Waste Management

<p align="center">10.16</p>	<p>18.5, #2 (page 18-7)</p>	<p>What are the fiscal impacts to Inyo County for continually having to pay Nevada for infrastructure service support such as the utilization of Nevada sites for hazardous waste disposal?</p>	<p>Staff does not know what the cost is to dispose of waste in Nevada. However, where waste from Inyo county is disposed will not change because of the Hidden Hills project. The disposal of hazardous waste is not free and will be paid for in both California and Nevada. The state of California has two hazardous waste landfills. The nearest Class I landfill to the project site is 320 miles away.</p>
<p align="center">10.17</p>	<p>18.5, #3 (page 18-7)</p>	<p>Are Nevada LORS comparable and/or equivalent to California LORS requirements for hazardous waste disposal?</p>	<p>Yes, and when/if a regulation is more stringent in California as compared to Nevada, Nevada adopts the California regulation when it comes to disposal.</p>
<p align="center">10.18</p>	<p>18.5, #4 (page 18-7)</p>	<p>Are there any identified jurisdictional issues between Nevada hazardous waste LORS and California hazardous waste LORS that cannot be resolved?</p>	<p>Staff is not aware of any jurisdictional issues between California and Nevada that are not resolved.</p>
<p align="center">10.19</p>	<p>18.5, #5 (page 18-7)</p>	<p>What jurisdiction, if any, does the CEC have regarding ensuring Nevada is willing to accept all Conditions of Certification for waste disposal should the proposed project be approved?</p>	<p>None, all of the conditions of certification are written for California. Staff worked with Nevada regulators to verify which Nevada regulations will effect the HHSEGS project prior to writing the Preliminary Staff Assessment. Nevada landfills have indicated that they would be willing to accept project wastes.</p>
<p align="center">10,20</p>	<p>18.5, #6 (page 18-7)</p>	<p>Will the CEC staff do a complete review of Nevada hazardous materials LORS and initiate pre-project approval agreements with all relevant agencies to ensure that hazardous waste will be adequately and appropriately disposed of?</p>	<p>Staff worked with Nevada regulators to verify which Nevada regulations will effect the HHSEGS project prior to writing the Preliminary Staff Assessment.</p>

Appendix 1 -- PSA Response to Comments, Waste Management

<p align="center">10.21</p>	<p>18.6, #1 (page 18-8)</p>	<p>Given the complexity surrounding solid and hazardous waste disposal generated by the proposed project in relation to the lack of infrastructure for waste disposal in the project vicinity, does the CEC Staff consider the necessary negotiations, resolutions, mitigation measures, regulatory efforts and fiscal impacts to be a significant disadvantage of siting the proposed project at this location?</p>	<p>Staff believes that there are no significant or potentially significant issues surrounding solid or hazardous waste disposal from the Hidden Hills project in either California or Nevada. The majority of non-residential, non-hazardous waste is from county road work and is disposed in Inyo County landfills.</p>
<p align="center">10.22</p>	<p>18.6, #2 (page 18-8)</p>	<p>Does the CEC Staff believe that all significant and potentially significant issues surrounding solid and hazardous waste disposal can be successfully resolved prior to project approval or will these issues only be vetted during the development and approval of the Operation Waste Management Plan?</p>	<p>Staff believes that there are no significant or potentially significant issues surrounding solid or hazardous waste disposal from the Hidden Hills project in either California or Nevada.</p>
<p align="center">10.23</p>	<p>18.7, #1 (page 18-9)</p>	<p>Can the CEC know about the potential inclusion of temporary worker housing at or near the proposed project site and not include any data, analysis, potential impact discussions or proposed mitigation measures under CEQA equivalency requirements- and still approve the siting of the proposed project?</p>	<p>Staff's Socioeconomics analysis shows that no additional housing, temporary or otherwise will need to be constructed as a result of project construction and operation. There is enough available housing in the area to accommodate those workers who temporarily relocate closer to the project site during construction.</p>
<p align="center">10.24</p>	<p>18.7, #2 (page 18-9)</p>	<p>Should temporary worker housing be utilized on or near the proposed project site, what is the maximum number of units that would be authorized and what would be their corresponding waste disposal needs?</p>	<p>Staff's Socioeconomics analysis shows that no additional housing, temporary or otherwise will need to be constructed as a result of project construction and operation. There is enough available housing in the area to accommodate those workers who temporarily relocate closer to the project site during construction.</p>
<p align="center">10.25</p>	<p>18.7, #3 (page 18-9)</p>	<p>Was the unresolved issue of municipal waste generation ever discussed at either workshop held on June? If so, what were the details of that discussion, what did it cover, what impacts were identified, what volume of waste were projected from temporary construction worker influx, and costs were associated with this waste disposal?</p>	<p>The issue of municipal waste was not discussed at the workshop. It was determined that no additional housing, temporary or otherwise will need to be constructed as a result of project construction and operation. There is enough available housing in the area to accommodate those workers who temporarily relocate closer to the project site during construction.</p>

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10.26	18.8, #8 (page 18-10)	How can the 200,000 to 400,000 gallons of recycled water be counted on for dust control if its discharge depends on the fluid sample levels of contamination.	The water would have to be disposed in the proper facility if contaminated. See Soils and Surface Water for additional information.
10.27	18.8, #9 (page 18-10)	What happens to this recycle water if fails to register as clean? How will it be disposed of?	See Soils and Surface Water Condition of Certification SOILS-6
10.28	18.9, #10 (page 18-10)	Will the applicant just dilute the recycled water until it registers as clean? If so how much additional water would this require?	Please refer to the Soils and Surface Water section of this FSA .
10.29	18.8, #11 (page 18-10)	If the fluid samples fail to register as clean and the applicant dilutes it with additional water until it can register as clean enough for discharge, isn't the same amount of non-clean chemicals being discharged into the environment? If so, what is the cumulative affect of this discharge to soil, water and biological resources over the life of the proposed project?	Please refer to the Soils and Surface Water section of this FSA .
Comment #	DATE	COMMENT TOPIC	RESPONSE
13	July 23, 2012	Applicant, BrightSource Energy, Inc. -	
13.1		Correct acreage number (not 3,900)	3,900 acres was a typo, correct acreage number of 3,277 appears on page 5-14.7 of FSA
13.2		Page 4.14-5, Table 1 LORS, Title 24, CCR, Part 11 2010 Green building Standards Code (CalGreen): suggest that this LORS be deleted because Inyo County has a local construction and demolition (C&D) debris diversion ordinance that achieves the same objective of diversion of 50 percent of construction water from Landfills. The CalGreen code only applies if there is no local ordinance.	There is no diversion percentage specified in the Inyo County ordinance.

Appendix 1 -- PSA Response to Comments, Waste Management

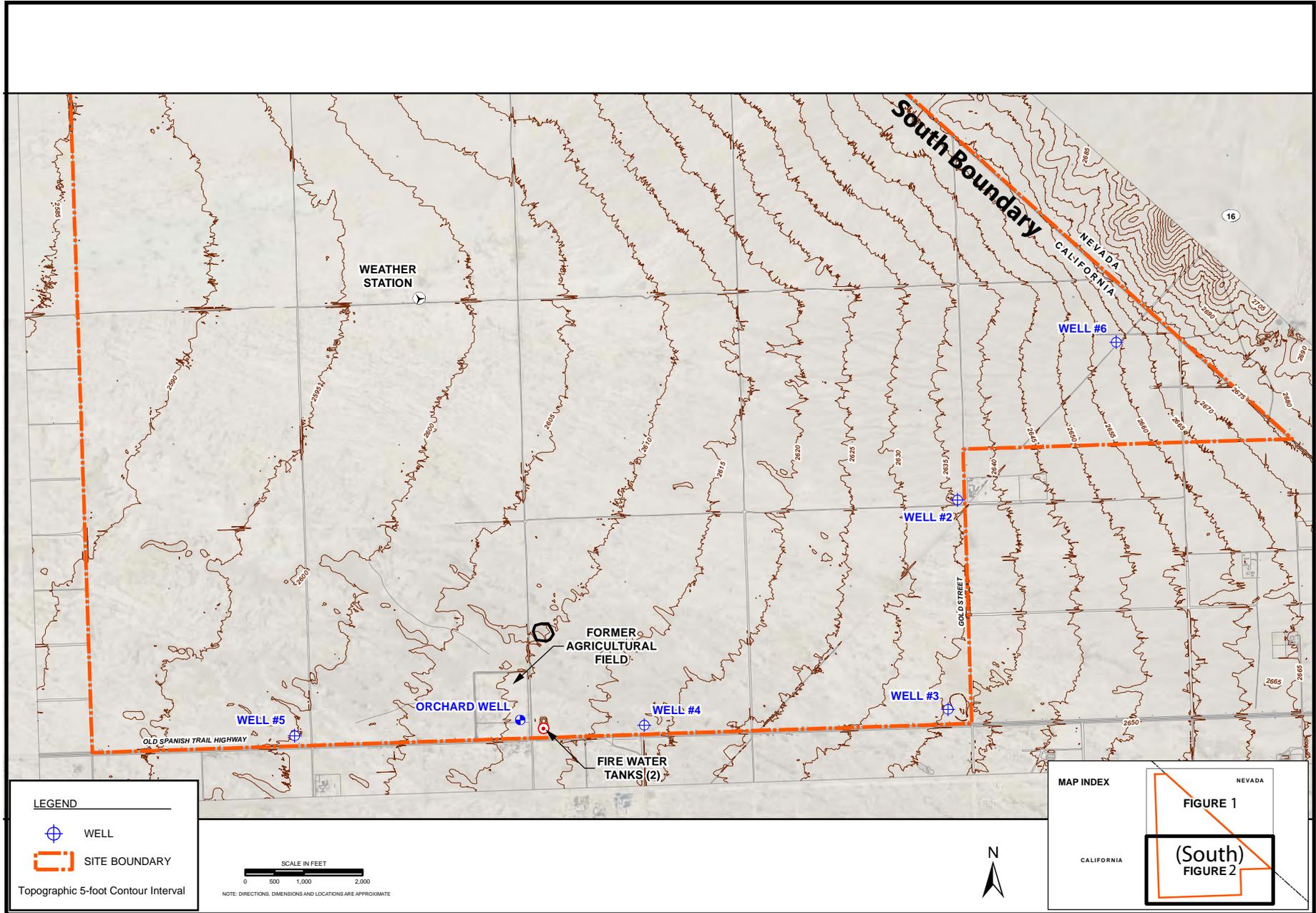
<p align="center">13.3</p>		<p>Page 4.14-6, Table 1 LORS, Title 8, CCR Section 1529 and 5208: Suggest that this LORS be deleted, as this applies to existing facilities that need to be demolished that have asbestos-containing materials. It should not apply to the HHSEGS because there are no existing structures at the site that need to be demolished.</p>	<p align="center">Staff concurs and has made the requested change.</p>
<p align="center">13.3</p>		<p>Page 4.14-6, Table 1 LORS, Title 8, CCR Section 1529 and 5208: Suggest that this LORS be deleted, as this applies to existing facilities that need to be demolished that have asbestos-containing materials. It should not apply to the HHSEGS because there are no existing structures at the site that need to be demolished.</p>	<p align="center">Staff concurs and has made the requested change.</p>
<p align="center">13.4</p>		<p>Page 4.14-8, 2nd paragraph, 2nd sentence: According to the State of Nevada, Class I and II landfills can also accept non-hazardous non-recyclable waste. Suggest that sentence be reworded as follows: Waste would be recycled, where practical, and non-recyclable waste would be deposited in a Nevada Class III <u>licensed to accept such waste</u>.</p>	<p align="center">Staff concurs and has made the requested change.</p>
<p align="center">13.5</p>		<p>Page 4.14-11, Construction Impacts and Mitigation, Nonhazardous Waste, 1st paragraph, last sentence: Suggest that the sentence be reworded as follows: The non-hazardous waste that cannot be recycled from the HHSEGS will be disposed in a Nevada Class III landfill licensed to accept the waste (Nevada Administrative Code (NAC) Section 444.5715).</p>	<p align="center">Staff concurs and has made the requested change.</p>

Appendix 1 -- PSA Response to Comments, Waste Management

13.6		Page 4.14-17, 2nd paragraph, 4th sentence: Suggest revising the sentence as follows: The CPM, after receiving comments from the County, shall determine with the applicant if the plan is diverting recyclables to the maximum extent feasible.	Staff concurs and has made the requested change.
13.7		Page 4.14-22 Conclusion #4: Please revise	Staff concurs and has made the requested change.
13.8		Pages 4.14-22, Conclusions #5: suggest deletion of conclusion No. 5. Waste that will be generated onsite by the project is already covered by the waste management analysis. No new residences are foreseen as part of the project so no other increase in waste generation is anticipated beyond what is already described in the analysis.	Staff concurs and has made the requested change.
13.9		Page 4.14-23, Finding of Fact #9: suggests deletion of this statement, as it is not a finding of fact: The project owner will work with Inyo County and Energy commission staff to determine what mitigation measures, if any, should be proposed in the Final Staff Assessment to address potential help off set expected impacts to county services, if any, including municipal solid waste disposal.	Staff deleted the statement

WASTE MANAGEMENT - FIGURE 2
 Hidden Hills Solar Electric Generating System (HHSEGS) -Site Plan (South)

WASTE MANAGEMENT



LEGEND

- WELL
- SITE BOUNDARY

Topographic 5-foot Contour Interval

SCALE IN FEET

0 500 1,000 2,000

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE



MAP INDEX

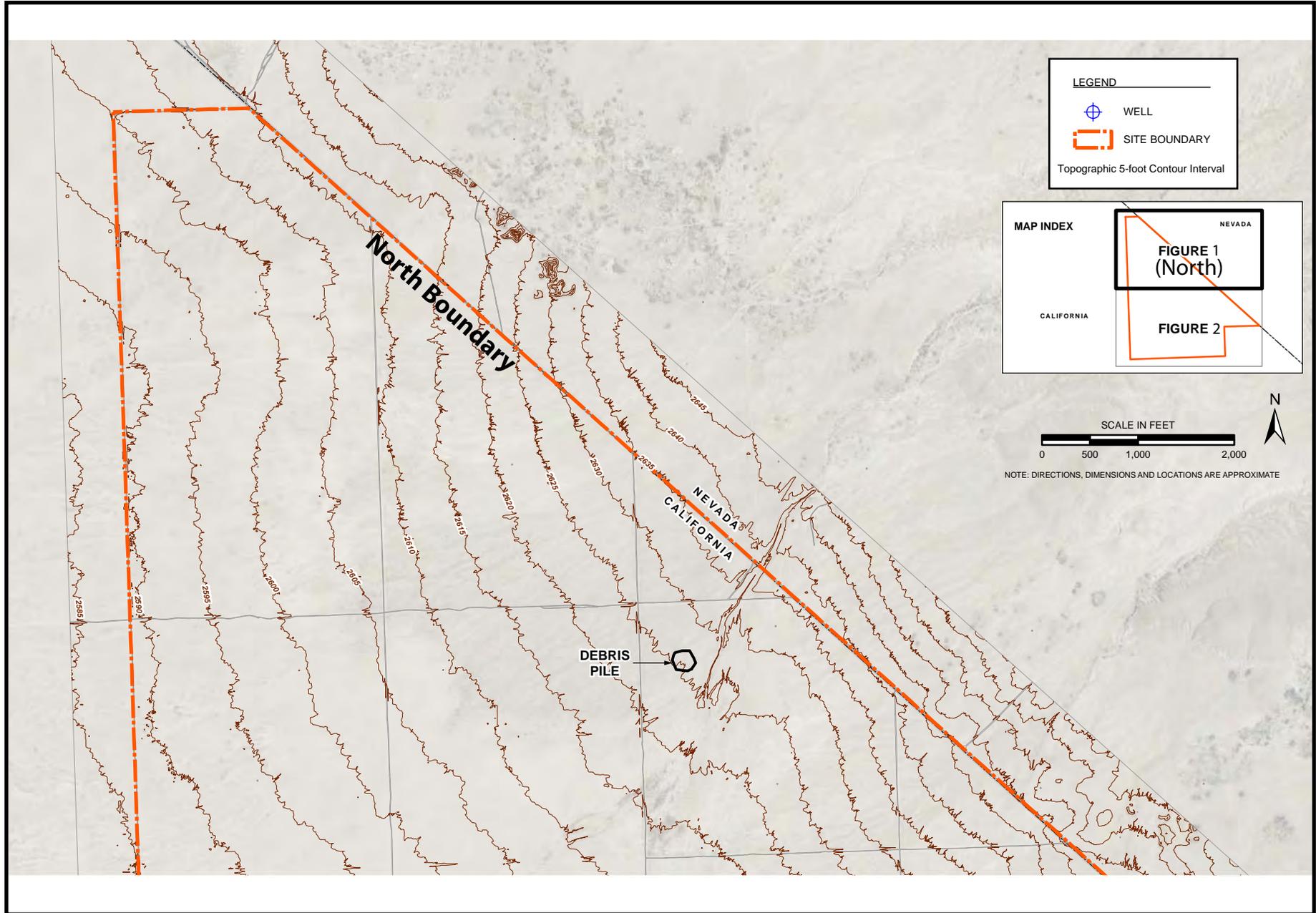
NEVADA

FIGURE 1

CALIFORNIA

(South)
FIGURE 2

WASTE MANAGEMENT - FIGURE 1
Hidden Hills Solar Electric Generating System (HHSEGS) -Site Plan (North)



WASTE MANAGEMENT