DOCKETED	
Docket Number:	89-AFC-01C
Project Title:	Compliance - LUZ SEGS IX and X Projects Application for Certification
TN #:	248604
Document Title:	Compliance-Application for Certification for LUZ Solar Electric Generating Systems Cogeneration Unit IX
Description:	Solar Energy Generating Systems Unit IX - Final Decommissioning Plan
Filer:	susan fleming
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	1/30/2023 2:02:18 PM
Docketed Date:	1/30/2023

SOLAR ENERGY GENERATING SYSTEMS UNIT IX (89-AFC-01C) - HARPER LAKE FACILITY DECOMMISSIONING PLAN AND LICENSE TERMINATION

STAFF ANALYSIS AND RECOMMENDATION

On March 30, 2022, Luz Solar Partners IX, Ltd., (project owner), an indirect wholly owned subsidiary of Terra-Gen, LLC, filed the Facility Decommissioning Plan and Petition to Terminate License (TN 242500) with the California Energy Commission (CEC) for the Solar Energy Generating Systems Unit IX (SEGS IX) facility, as required by Condition of Certification (COC), Requirement 2 in the "Decommissioning" section of the Energy Commission's Final Decision (Decision). This condition is referred to as "**DECOM-2**" in this analysis. The request for license termination would effectively end the CEC's jurisdiction over the SEGS IX site once the final close out letter issued by the CEC's Delegate Chief Building Official (DCBO) overseeing the decommissioning activities have verified that the approved COCs addressing decommissioning activities have been satisfied.

Requirement 2 in the "Decommissioning" section of the Decision certifying the SEGS IX states that prior to commencing decommissioning activities for SEGS Unit IX, the project owner shall file a decommissioning plan with the CEC Compliance Project Manager. CEC staff recommends that the CEC approve the facility Decommissioning Plan for SEGS IX. The CEC staff has reviewed the Decommissioning Plan and concludes that with the recommended COCs set forth in the analysis, implementation of the Decommissioning plan would ensure facility decommissioning avoids significant effects on the environment and complies with all relevant existing COCs and applicable laws, ordinances, regulations, and standards (LORS). CEC staff also recommends that upon completion of the decommissioning activities the facility's certification terminates allowing the site to be repurposed.

BACKGROUND

SEGS IX is a solar thermal power plant that uses parabolic mirrors to concentrate solar energy for transfer into heat transfer fluid, which is then used to create steam to generate up to 80 megawatts (MW) of electric power for the Southern California Edison transmission grid. The CEC certified SEGS IX on February 14, 1990, and the facility went online in October 1990. SEGS IX is located at 43880 Harper Lake Road, 7 miles northeast of Highway 58 on a 500-acre site near Hinkley, California, in unincorporated San Bernardino County.

On October 13, 2021, the CEC approved a post-certification petition to amend the Final

DECOMMISSIONING PLAN APPROVAL PROCESS

The purpose of the CEC's review process is to analyze whether the proposed decommissioning would comply with applicable LORS and avoid significant effects on the environment and to determine that upon completion of decommissioning, the facility's certification can be terminated.

Staff has concluded that decommissioning of the SEGS IX facility would have less than significant effects on the environment and would comply with all applicable LORS with the continued implementation of existing COCs in the Decision, and with the implementation of new conditions in the areas of Air Quality, Biological Resources, Cultural Resources, Hazardous Materials Management, Land Use, Noise, Public Health, Soil and Water Resources, Transportation, and Worker Safety and Fire Protection. In addition, decommissioning would not affect any population including the environmental justice population as shown in **Environmental Justice Figure 1**, **Figure 2**, and **Table 1** in the Staff Analysis. Staff has also concluded that the facility's certification can appropriately be terminated upon final completion of the decommissioning plan and DCBO signoff allowing the site to be repurposed. Further staff concludes that decommissioning of the SEGS IX facility and termination of certification do not meet any of the criteria set forth in Public Resources Code section 21166 and California Code of Regulations (CCR), title 14, section 15162, that would necessitate the preparation of a subsequent or supplemental environmental document.

For additional information, visit the CEC's project webpage https://www.energy.ca.gov/powerplant/solar-thermal/segs-ix-harper-dry-lake. Related documents, including the Final Decommissioning Plan, are accessible through this webpage in the box labeled "Compliance Proceeding." Click on the "Documents for this Proceeding (Docket Log)" option to review the compliance docket logs and corresponding documents.

This staff analysis is being mailed to the CEC's list of interested persons who have requested service by mail, affected public agencies, and owners and occupants of property contiguous to the project. It has also been sent electronically to the SEGS IX listserv in accordance with CCR, Title 20, section 1209. The listserv is an automated system by which links to information about the facility are emailed to anyone who has subscribed. To subscribe, go to the CEC's project webpage for the SEGS IX project, scroll down the right side of the project webpage to the box labeled "Subscribe," and provide the requested contact information.

Staff intends to recommend approval of the SEGS IX Facility Decommissioning Plan and subsequent certification termination at the CEC's February 15, 2023, Business Meeting. At the business meeting, any person may present oral or written statements relevant to the proposed Facility Decommissioning Plan.

Any person may comment on the Staff Analysis. Those who wish to comment are asked to submit their comments by 5:00 p.m. on Monday, February 13, 2023.

To use the CEC's electronic commenting feature, go to the CEC's project webpage, click on the "Comment on this Proceeding" or "Submit e-Comment" link, and follow the

instructions in the online form. Be sure to include the facility name in your comments. Once the CEC's Docket Unit files your comments in the docket, you will receive an email with a link to them. Written comments may also be mailed to:

California Energy Commission
Docket Unit, MS-4
SEGS IX (89-AFC-01C)
715 P Street
Sacramento, CA 95814

Comments will also be accepted during the scheduled business meeting. All comments and materials filed with the Dockets Unit will be added to the facility Docket Log and become publicly accessible on the CEC's project webpage.

If you have questions about this notice, please contact Compliance Project Manager John Heiser, Safety and Reliability Branch, Compliance Monitoring and Enforcement Unit, at (916) 628-5566 or via e-mail at John.Heiser@energy.ca.gov.

For information on public participation, please contact the CEC's Office of Public Advisor, Energy Equity, and Tribal Affair sat (916) 957-7910 or email at publicadvisor@energy.ca.gov.

News media inquiries should be directed to the CEC's Media Office at (916) 654-4989, or by e-mail to mediaoffice@energy.ca.gov.

Mail List: 742
Listserv: Solar Energy Generating Systems (SEGS IX)

STAFF ANALYSIS

SOLAR ENERGY GENERATING SYSTEMS
UNIT IX (89-AFC-01C) - HARPER LAKE

FACILITY DECOMMISSIONING PLAN AND LICENSE TERMINATION

SOLAR ENERGY GENERATING SYSTEMS
UNIT IX (89-AFC-01C)
FACILITY DECOMMISSIONING PLAN AND LICENSE TERMINATION STAFF ANALYSIS

TABLE OF CONTENTS

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination

Executive Summary

John Heiser

INTRODUCTION

On March 30, 2022, Luz Solar Partners IX, Ltd., (project owner), an indirect wholly owned subsidiary of Terra-Gen, LLC, docketed a Facility Decommissioning Plan and Petition for License Termination with the California Energy Commission (CEC) requesting to begin safe layup and decommissioning activities at the Solar Electric Generating Systems Unit IX (SEGS IX) site as early as November 2023, pending CEC approval of the Facility Decommissioning Plan.

The SEGS IX project is a solar thermal power plant that uses parabolic mirrors to concentrate solar energy for transfer into heat transfer fluid (HTF), which is then used to create steam to generate up to 80 megawatts (MW) of electric power for the Southern California Edison (SCE) transmission grid. The CEC certified SEGS IX on February 14, 1990, and the facility went online in October 1990. The SEGS IX project is located at 43880 Harper Lake Road, 7 miles northeast of Highway 58 on a 500-acre site near Hinkley, California, in unincorporated San Bernardino County.

The Facility Decommissioning Plan fulfills the compliance requirement of Condition of Certification (COC), Requirement 2 in the "Decommissioning" section of the Commission Final Decision (Decision) for SEGS IX. This condition is referred to as "**DECOM-2**" in this analysis.

After safe layup, decommissioning, and demolition activities have been completed and the facility's certification terminated, the County of San Bernardino would assume jurisdiction over the SEGS IX site. The battery energy storage system (BESS), approved by the CEC on July 8, 2020 for use by the SEGS VIII and IX facilities, was never constructed and its approval would also be terminated with the termination of the SEGS IX certification.

The project owner obtained a conditional use permit (CUP) from the County of San Bernardino to redevelop the SEGS VIII-IX site into the Lockhart Solar PV and BESS. (CUP Project #201900125.) For Lockhart Solar I, the County issued the CUP in 2019, and construction is to commence in the 2nd or 3rd quarter of 2024.

CONDITIONS FOR FACILITY DECOMMISSIONING

The project owner filed the Facility Decommissioning Plan with the CEC for approval pursuant to COC, Requirement 2 in the "Decommissioning" section of the Commission Decision. Requirement 2 states:

2. Prior to commencing decommissioning activities for SEGS Unit IX, Luz [project owner] shall file a decommissioning plan with the California Energy Commission (CEC) Compliance Project Manager (CPM). The decommissioning plan shall:
    - identify and discuss the proposed decommissioning activities and schedule for the power plant site, transmission line corridor, and all appurtenant facilities constructed as a part of/or because of the project;
    - identify all applicable laws, ordinances, regulations, standards, (LORS)and local/regional plans applicable at that time;
    - discuss how the specific proposed decommissioning activities will comply with those identified LORS and plans;
    - contain an analysis of all decommissioning alternatives considered, including restoration of the site to its preconstruction, natural state; and
    - discuss the reasons for selecting the preferred proposal.

Requirement 2 also specifies that the project owner shall not commence decommissioning activities of SEGS IX until approval of the decommissioning plan is obtained from the CEC CPM. It further specifies that the project owner shall comply with any requirements incorporated by the CEC as a condition of the decommissioning plan.

NECESSITY FOR FACILITY DECOMMISSIONG

The decommissioning of SEGS IX is a result of economic considerations, maintenance costs and the evolving energy markets of California. The facility was designed as a solar thermal power plant that uses parabolic mirrors to concentrate solar energy onto heat transfer fluid, which is used to create steam to generate up to 80 MW of solar thermal electricity for the SCE transmission grid and has been in operation for more than 30 years. Once decommissioning and demolition of certain plant facilities and operational equipment is complete, the facility's certification can be terminated allowing the project site to be repurposed for development of a solar photovoltaic (PV) facility. The solar PV facility will be constructed and operated under the jurisdiction of San Bernardino County.

FACILITY DECOMMISSIONING ACTIVITIES

Upon the cessation of current solar thermal power generation activities, the following initial decommissioning activities would take place to remove SEGS IX from service:

- Drain all fluid systems, collect all contents, and dispose of or recycle within applicable LORS to ensure public health and safety, and protection of the environment.

- Categorize all wastes including HTF, lubricating oils, fuels, water treatment chemicals, universal waste, and possible lead- and asbestos-containing materials, etc. These materials would be managed for proper containerization, profiling, and shipment off site for disposal or recycling.
- Identify utility systems required for continued operation of the solar PV project.
- Design and install temporary facilities for support of SEGS decommissioning and contractor personnel such as office trailers, temporary power, potable water, and sanitary service.
- Conduct equipment liquidation/sale, recycling, or disposal activities. Certain project facilities and equipment would remain in place at the project site to support the PV solar facilities. Certain other equipment would be decommissioned and placed into temporary storage (at either the project site or elsewhere) or permanently removed from the site. The planned disposition of the current project facilities and equipment is discussed below. A full description of decommissioning and demolition activities including a proposed schedule for closure is included in Section 3.4 of the Final Decommissioning Plan.

SEGS VIII and IX Project Location Figure 1

POWER PLANT STAFFING AND SECURITY

Select power plant staff would remain on site throughout decommissioning activities. Existing security measures on site would restrict public access during decommissioning and layup. The entire site would continue to have the existing chain-link security fencing around the site with electronic gate access. Controlled access gates would be located at the entrance to the facility and access through the main gate would require an electronic control number input or be opened by control room personnel once identification is confirmed, preventing unaccompanied visitors from accessing the facility.

SAFE POWER PLANT EQUIPMENT LOCKOUT

The safe layup process would include the de-energization of certain control systems and the partial de-energization of others. The project owner would lockout specific equipment according to the project lockout/tagout (LOTO) procedures to ensure unintentional operation does not occur.

Some of the major equipment to be locked out is listed below. All equipment requiring LOTO would be appropriately locked out and de-energized before handling and removal:

- Steam turbine: Disable and decouple starting means
- Generator step-up Transformer: remove high and low side connections
- Generators: remove links to iso-phase busses
- Natural gas supply: blind and/or air gap the supply
- Steam turbine starting motors: disconnect and ground cabling to motors

REMOVAL OF HAZARDOUS MATERIALS

Table 2.1 in the Decommissioning Plan lists the primary hazardous materials expected to be handled during the decommissioning process. These materials include HTF, lead acid batteries, diesel, hydraulic oil, lubricating oil, and mineral oil. Any additional operational chemicals listed as hazardous in the Spill Prevention, Control, and Countermeasure (SPCC) plan, or otherwise used at the site, would also be removed as part of the terminal shutdown of the plant prior to decommissioning activities. Lead and asbestos-containing structures and materials are not known to be present on site, but testing would be performed prior to the start of demolition.

All residual materials and chemicals would be removed prior to demolition for recycling or proper disposal at licensed facilities. Fuel, HTF, hydraulic fluids and oils would be transferred directly to a tanker truck from the respective tanks and vessels. Storage tanks/vessels would be rinsed and rinsate would also be transferred to tanker trucks.

Transportation of removed hazardous materials would comply with regulations for transporting hazardous materials, including those set by the United States Department of Transportation, United States Environmental Protection Agency, California

Department of Toxic Substances Control, California Highway Patrol, and California State Fire Marshal. Table 2.2 in the final decommissioning plan lists the properties and toxicity of the primary hazardous waste materials that are expected to be removed.

The SPCC plan for the site would be updated to cover spill prevention, control, and countermeasures for handling of these materials during decommissioning. A site-specific Health and Safety Plan would document health and safety requirements for establishing and maintaining a safe working environment during the implementation of the planned site activities. Additional procedures to decrease the potential release of contaminants to the environment and contact with stormwater would be specified in the Storm Water Pollution Prevention Plan (SWPPP), which would be updated for decommissioning activities, if necessary.

GENERATOR TIE-LINE

The existing 13.5-mile, 220-kilovolt (kV) generator tie-line would remain in place and be utilized by the solar PV facility. During safe layup, SEGS IX would be isolated from the generator tie-line by disconnection of the generator tie-line conductors between the switchyard and the associated substation.

Unless they can be reused, onsite transmission poles and conductors would be removed. Conductors would either be sold as scrap metal to be recycled or sent to a licensed disposal facility. The switchyard would remain in place for continued use by the PV project.

The SEGS IX substation would remain in place if it can be upgraded for solar PV use; otherwise, it would be removed.

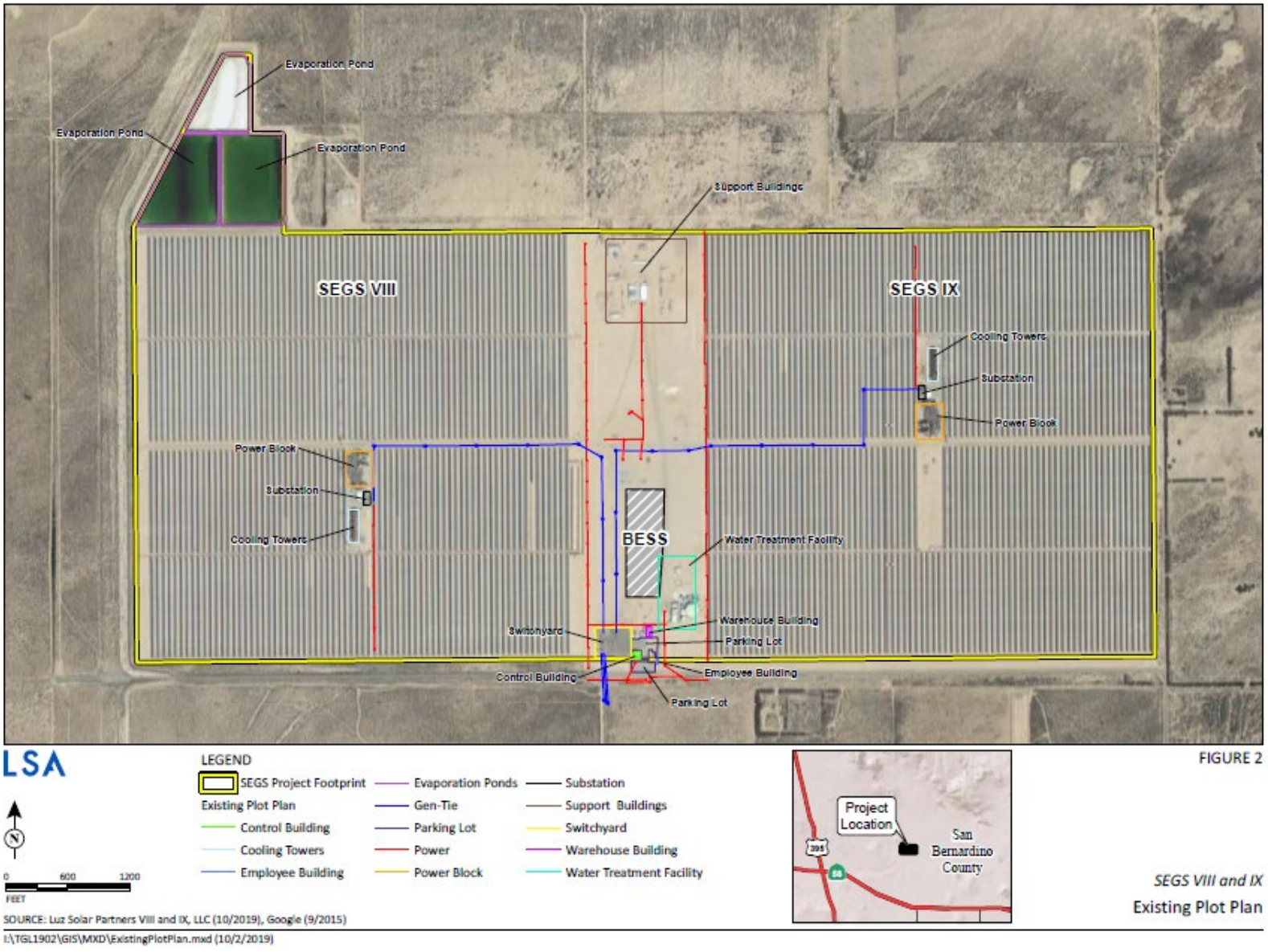
NATURAL GAS SUPPLY LINE

During safe layup for SEGS IX, the natural gas pipeline serving SEGS IX would be cut and capped in place at the on-site isolation point at the natural gas distribution yard. After the pipeline is purged, it would be grouted, prior to being left in place in accordance with applicable LORS.

FACILITIES TO REMAIN IN PLACE

Some of the SEGS IX facilities may remain in place, including solar tracker foundations, and underground utilities and installations for use by future BESS or PV facility. Facilities to remain in place, both within the SEGS IX footprint and within the shared facilities (SEGS VIII and IX) footprint, are listed below. A plot plan of existing facilities is included as Figure 2.

SEGS VIII and IX Existing Plot Plan Figure 2



Facilities to Remain in Place within SEGS IX Footprint

- Substation (if it can be upgraded for solar PV use, otherwise it would be removed)
- Electrical lines and poles (if they can be reused for a future solar PV project, otherwise they would be removed)

SEGS VIII and SEGS IX Facilities to Remain in Place

- Distribution lines and poles (if they can be reused to support the future Lockhart Solar PV facility)
- Switchyard
- Employee building
- Control building
- Warehouse building
- Perimeter fencing, including desert tortoise exclusion fencing
- Access gates
- On-site water wells*
- Septic system**
- Natural gas supply line (to be cut/capped and left in place)***
- Generation transmission (gen-tie) line and towers
- 34.5 kV electric disconnect equipment
- Site access roads
- Parking lot
- Concrete foundations (may remain in place if they do not interfere with future solar PV facilities)
- Several support and miscellaneous buildings (e.g., sheds and mechanical shop, etc.)
- Electrical gen-tie line (if able to reuse to support the future Solar PV facility)
- 34.5-kV electric disconnect equipment
- Site access roads
- Concrete foundations (may remain in place if they do not interfere with future solar PV facilities)
- Several support and miscellaneous buildings (e.g., sheds and mechanical shop, etc.)

*On-site water wells: all onsite wells that would not be used to service the PV facility would be properly abandoned in accordance with California Department of Water Resources Bulletin 74 series (74-81, 74-90, and updates).

**Septic system: the septic system would be drained and properly abandoned in accordance with the California Plumbing Code, Section 722, and San Bernardino County Land Use Services Department Building and Safety Division Demolition Guidelines. This would entail a final inspection from the County of San Bernardino, Building & Safety Division.

***The portion of the natural gas supply line serving only SEGS IX would be purged, cut and capped in place.

FACILITIES TO BE REMOVED

The following lists facilities that would be removed from the SEGS IX site. Figure 2, plot plan, shows the location of the existing facilities.

- Water evaporation ponds: Ponds would be closed per Lahontan Regional Water Quality Control Board (RWQCB) requirements
- Water treatment facility: This includes ancillary equipment associated with the on-site water treatment process
- Substation (would be removed if upgrade of existing substation for future use is not viable)
- Onsite gen-tie electrical transmission lines and towers (if they cannot be reused for future solar PV project)
- SEGS IX cooling towers: This includes an evaporative cooling tower system.
- SEGS IX cooling towers would remain in place until SEGS IX is decommissioned.
- Power block: This includes storage tanks, steam turbine generator, transformers, heat exchangers, power block, pumps, and other ancillary equipment.
- Parabolic mirrors, above ground supports, aboveground HTF piping, and related equipment.
- Some of the support and miscellaneous buildings (e.g., sheds, mechanical shop, etc.) currently on site, which are not listed in the list of facilities to remain, may be removed if they would not be needed or be reused for the PV facility.

The facilities planned for removal would be disconnected from existing electrical, fuel, lubrication, and other lines and removed from their foundations. Above-ground demolition entails break down and removal of above-ground structures and facilities. Residual materials from these activities would be transported via heavy haul dump truck to one or more central recycling/staging areas where the debris would be processed for transport to an off-site recycler or a licensed disposal facility.

The strategy for demolition consists of the use of mechanized equipment and trained personnel in the safe dismantling and removal of the following above-ground structures.

- Parabolic mirrors, supports, and related equipment using low environmental impact equipment.
- Support and miscellaneous buildings using conventional dismantling, deconstruction, and demolition techniques. Temporary or stationary facilities such as storage buildings, containers, and small tanks would be detached and disassembled to the extent possible for safe transport, then hauled off for reuse or recycling.
- Storage tanks would be emptied of all remaining residues and products such as HTF, diesel, hydraulic oil, lubricating oil, and mineral oils, and other materials (where feasible) to reduce potential personnel and environmental exposure, and to facilitate decommissioning. Hazardous material and petroleum containers and pipelines would be rinsed clean when feasible and the rinsate collected for off-site disposal. In general, these materials would be placed directly into tanker trucks or other transport vessels and removed from the site at the point of generation to reduce the need for hazardous material and waste storage at the site.
- Turbine generator, heaters, condenser and related equipment, transmission lines and towers that cannot be reused on site, and above-ground pipelines using conventional deconstruction and demolition equipment and techniques would all be removed.

DECOMMISSIONING AND RECYCLING

Some materials decommissioned from SEGS IX may be retained as spare parts for the continued operation of SEGS IX. Materials and equipment at the site that would not be reused would be decommissioned, removed, and transported for recycling and salvage value to the greatest extent possible. This includes the SEGS IX cooling towers, power block, heaters, and water treatment facility, as well as other ancillary equipment. These materials would be transported off site by the contractor to be sold for salvage value (e.g., any working equipment), or recycling/scrap value (e.g., metal scrap, piping, etc.).

The project owner intends to limit concrete and foundation removal to the extent practical. Where practical, concrete may be crushed to 2 inches-minus size and backfilled into open pits and/or maybe used as road base for the new PV facility as permitted by, the CEC compliance project manager or a delegate chief building official.

The natural gas pipeline serving SEGS IX would be cut and capped in place at the on-site natural gas distribution yard. The pipeline would be left in place in accordance with applicable LORS.

Other underground utility lines and piping that will would not be reused for the PV project would be cut, grouted, and capped at or below the ground surface but not removed. A map of the buried utilities that are abandoned in place shall be prepared and submitted at the conclusion of decommissioning activities. SEGS maintains their current as-built construction plans including underground pipe locations. These can be updated as necessary to reflect abandoned lines and provided to San Bernardino County upon request.

SCHEDULE

Decommissioning is scheduled to begin as early as November 2023, pending the approval of this Decommissioning Plan and market-driven business decisions. Decommissioning would be completed using traditional heavy construction equipment including but not limited to front-end loaders, track-mounted and rubber-tired excavators, bulldozers, concrete crushers, dump trucks and heavy haul trucks.

The decommissioning and demolition work would require approximately 15 to 20 environmental specialists and 40 to 50 on-site demolition workers. Truck traffic would consist of flatbed and lowboy delivery trucks (5-axle) for mobilization and demobilization, and dump trucks (4-axle) during the demolition phase of the project.

Decommissioning and demolition related vehicle ingress/egress would be scheduled to minimize traffic obstructions and not interfere with peak-hour traffic. Also, a flag person shall be retained to maintain efficient traffic flow and safety adjacent to existing roadways.

The following table provides the total number of truck trips for materials that would be hauled off site during decommissioning and the anticipated number of trips per day.

Materials to be Hauled Offsite During Decommissioning	**Quantity of Material**	**Total Number of Truck Haul Trips During Decommissioning**	**Maximum Number of Haul Trips per day**
Contaminated Concrete	32 tons	2	2
Glass	6,250 tons	313	5
Other non-recyclable waste	4,000 tons	286	5
Metal	7,500 tons	341	4
HTF Material	320,000 gallons	28	5
Totals		970	21

Although various types of decommissioning and demolition equipment would be utilized to dismantle each type of structure or equipment, dismantling would proceed according to the following general staging process.

The first stage consists of safe layup of project facilities including removal of HTF, which would take approximately 30 to 60 days.

The second stage consists of dismantling and demolition of above-ground structures to be removed. This is anticipated to take approximately3 months.

The third stage consists of concrete removal and crushing as needed to ensure that no concrete structure remains within 3 feet of final grade (i.e., floor slabs, below-ground walls, and footings) in areas that need to be cleared for future solar PV project facilities. This stage would take approximately 30 to 60 days.

The fourth stage consists of removal/dismantling of underground utilities within 3 feet of final grade if the underground utility conflicts with placement of PV equipment.

The project owner intends to limit the needs for underground utility removal to the maximum extent practical. This stage would take approximately 30 days.

SUMMARY OF STAFF'S ANALYSIS OF THE FACILITY DECOMMISSIONING PLAN

The CEC staff reviewed the Facility Decommissioning Plan for potential environmental effects and consistency with applicable LORS.

The CEC staff has concluded that the technical areas of Efficiency and Reliability, Facility Design, and Transmission System Engineering are not affected by decommissioning of SEGS IX.

The CEC staff has concluded that in the following technical areas, impacts to the environment are less than significant and the project would remain in compliance with all applicable LORS with the continued implementation of existing COCs in the SEGS IX Final Decision: Noise, Socioeconomics, Visual Resources, and Waste Management.

For the technical areas of Air Quality, Biological Resources, Cultural Resources, Geology and Paleontological Resources, Hazardous Materials Management, Land Use, Public Health, Soil and Water Resources, Transportation, Transmission Line Safety and Nuisance, and Worker Safety and Fire Protection, staff has concluded that impacts on the environment would be less than significant and decommissioning would comply with all applicable LORS with the continued implementation of existing COCs in the Decision, and with the implementation of new decommissioning-specific COCs in these technical areas. As part of the new decommissioning specific COCs, staff has included verification language that requests monthly compliance reports to be submitted to the compliance project manager within prescribed time frames. The CEC staff also concludes that decommissioning and certification termination do not meet any of the criteria set forth in Public Resources Code section 21166 and CCR, title 14, section 15162, that would necessitate the preparation of a subsequent or supplemental environmental document.

In addition, decommissioning would not affect any population including the environmental justice population as shown in **Environmental Justice Figure 1**, **Figure 2**, and **Table 1** in the Environmental Justice section of the staff analysis.

The CEC staff's conclusions for each technical or environmental area are shown in **Facility Decommissioning Table 1** on the following page and summarized below the table. For details, see the individual technical sections of the staff analysis.

Facility Decommissioning Table 1
Executive Summary Table 1
Summary of Conclusions for all Technical and Environmental Areas

Technical Areas Reviewed	CEQA				Conforms with applicable LORS
	Potentially Significant Impact	Less Than Significant Impact with Mitigation (with Revised or New COCs)	Less Than Significant Impact (with or without Existing COCs)	No Impact	
Air Quality		X			X
Biological Resources		X			X
Cultural Resources		X			X
Efficiency				X	
Facility Design					N/A
Geological and Paleontological Resources		X			X
Hazardous Materials Management		X			X
Land Use		X		X	X
Noise and Vibration		X			X
Public Health		X			X
Reliability					
Socioeconomics			X		
Soil and Water Resources		X			X
Traffic and Transportation		X			X
Transmission Line Safety and Nuisance			X		X
Transmission System Engineering					X
Visual Resources			X		X
Waste Management			X		X
Worker Safety and Fire Protection		X			X

Areas shown in gray are not subject to CEQA consideration or have no applicable LORS the project must comply with.

Air Quality and Greenhouse Gases. The proposed decommissioning and demolition of SEGS IX would generate emissions of criteria pollutants, including oxides of nitrogen (NOx), carbon monoxide (CO), volatile organic compounds (VOC), particulate matter less than 10 microns (PM10), fine particulate matter less than 2.5 microns (PM2.5) and oxides of sulfur (SOx), as well as greenhouse gases. The proposed decommissioning and demolition process would last a total of approximately 9 months. Decommissioning activities would generate emissions from fugitive dust, tailpipe emissions from construction equipment used, waste/recycling truck trips, and construction worker commutes.

The emissions from the proposed demolition and decommissioning of SEGS IX are temporary and less than MDAQMD significance thresholds. Staff concludes that with the adoption of the new COCs **D-AQ-1** to **D-AQ-6**, the decommissioning and demolition would not result in significant adverse air quality and GHG emissions impacts.

Biological Resources. No special-status plant or wildlife species or sensitive vegetation communities were observed during field surveys conducted in 2018 (Lockhart Solar PV 2018). Based on literature review, database searches, and on-site habitat suitability assessments, staff determined that the project site does not contain suitable habitat for most special-status plant or wildlife species. However, desert kit fox (*Vulpes macrotis*), Mohave ground squirrel (*Xerospermophilusmohavensis*) and American badger (*Taxidea taxus*) are known to occur in the project vicinity and have been documented as part of the monitoring reports for Mojave Solar Project (09-AFC-05) located nearby. In addition, desert tortoise (*Gopherus agassizii*) has been documented along Harper Lake Road, the access road for decommissioning and demolition vehicles, as part of monitoring reports for the Mojave Solar Project. Birds that may nest on the site or adjacent to it could be impacted by decommissioning and demolition activities. Staff concludes that the proposed decommissioning activities would not result in potentially significant adverse impacts on biological resources, with implementation of Biological Resources COCs, **BIO-2**, **BIO- 3**, **BIO-4**, **BIO-7**, **BIO-8**, **BIO-9**, **BIO-12**, and **BIO-13** in the Decision, and the approval of the project owner's proposed decommissioning COCs **D-BIO-1** and **D-BIO-2**. Staff does not recommend approval of new owner-proposed COC **D-BIO-3** as staff does not consider it to be necessary to mitigate environmental impacts or conform with LORS due to the project's existing COCs which remain applicable to decommissioning. Implementation of these conditions of certification would ensure activities comply with applicable LORS. The proposed COCs, **D-BIO-1** and **D-BIO-2** are discussed in the Biological Resources technical analysis below. Staff proposes COC **D-BIO-3** to ensure that any damages to the desert tortoise exclusion fence, or culvert, attributable to the project's decommissioning activities are repaired at the cost of the project owner by a licensed contractor approved by the CEC CPM in coordination with Desert Tortoise Preserve Committee (DPTC).

Upon termination of the facility's certification, the Harper Lake Water Agreement (Agreement), finalized on April 12, 2005, signed by the CEC, LUZ, and the Bureau of

Land Management (BLM) would be terminated because the agreement was part of SEGS IX's mitigation and by the terms of the agreement, the mitigation obligations end. The Agreement allows BLM to pump up to 75-acre feet of water per year under SEGS VIII and IX's base annual production allowance, as specified in the Mojave River adjudication, from a well on BLM land for maintenance of the BLM Harper Lake wetlands. Currently, the project owner pays the annual fees related to the pumping of 75-acre feet to the Mohave Basin Area Watermaster. As part of the SEGS IX Facility Decommissioning Plan, the project owner has committed to continue allowing BLM to pump up to 75-acre feet per year for the maintenance of the Harper Lake wetlands for the duration of the operational life of the future Lockhart Solar PV facility.

As part of the existing mitigation for the related SEGS VIII project adjacent to SEGS IX, specifically COC BIO-4f, the Harper Lake Road Tortoise Monitoring and Fencing Agreement, dated July 11, 1995, signed by CEC, BLM and DTPC, was executed to manage funding provided by the original project owner for the installation, maintenance and monitoring of the desert tortoise-proof fence installed along a portion of Harper Lake Road. With the facility's decommissioning and termination of certification, the obligation for the continued oversight of the DTPC's long-term maintenance and monitoring of the desert tortoise-proof fence and culvert installed along a portion of Harper Lake Road and the CEC's oversite of it would end.

These agreements are discussed further in the Biological Resources technical analysis below.

Cultural and Tribal Cultural Resources. The CEC staff concludes that the proposed plan would have a less than significant impact on cultural or tribal cultural resources. The CEC staff reviewed the ethnographic and historic literature to determine whether any environmental justice populations use or reside in the project area. No known hunting and gathering areas would be impacted by the proposed decommissioning and demolition, therefore Native Americans are not considered members of the environmental justice population for this project.

The three new decommissioning and demolition related conditions **D-CUL-1**, **D-CUL-2**, and **D-CUL-3**, in combination with the existing Cultural Resources Condition, **Requirement CUL-9**, would be sufficient to reduce impacts from the proposed decommissioning and demolition to a less than significant level to both cultural resources and tribal cultural resources, and ensure compliance with applicable LORS.

Efficiency and Reliability. Power Plant Efficiency and reliability are related to plant operation, not plant decommissioning or demolition. There would be no impacts on efficiency and reliability as the result of the decommissioning and demolition.

Facility Design. There would be no construction as the result of decommissioning, and thus, there would be no impact on Facility Design.

Geology and Paleontological Resources. The CEC staff concludes the proposed decommissioning of the facility would not result in significant environmental impacts in terms of geologic resources, palaeontologic resources, or geologic hazards, provided

the owner complies with existing Cultural Resources COCs **PAL-1, PAL-2, PAL-4, PAL-18, and PAL-19,** and decommissioning conditions **D-PAL-1** through **D-PAL-3**.

Hazardous Materials Management. The CEC staff reviewed the decommissioning plan identifying all decommissioning activities which include handling, recycling, and disposal of hazardous materials once the facility ceases operation. The hazardous materials that would be handled during decommissioning include HTF, lead acid batteries, diesel fuel, hydraulic oil, lubricating oil, and mineral oil. The SEGS IX decommissioning plan proposed one condition, **D-HAZ-1**, which would have the project owner update the Hazardous Materials Business Plan (HMBP) as needed to reflect the new hazardous materials used during decommissioning.

The CEC staff recommends adoption of the decommissioning and demolition plan and concludes that with the implementation of condition **D-HAZ-1**, the hazardous material impacts to the environment would be less than significant and decommissioning would comply with applicable LORS.

Land Use. In accordance with the proposed COC **D-LU-1,** the project owner would obtain a demolition permit from the County of San Bernardino prior to the start of demolition activities. With implementation of COC **D-LU-1**, the project would comply with applicable land use LORS. No COCs in the Decision pertaining to Land Use apply to the decommissioning activities at the SEGS IX site. Decommissioning activities would not physically divide an established community or cause a significant environmental impact due to a conflict with LORS adopted for the purpose of avoiding or mitigating an environmental effect. Additionally, the activities would not result in the conversion of farmland or forest land. The decommissioning of SEGS IX would have no impacts to land use.

Noise. The decommissioning and demolition activities would temporarily elevate the ambient noise levels in the surrounding areas. Decommissioning and demolition activities would be limited to the hours of 7 a.m. to 7 p.m., Monday through Saturday, in accordance with the County of San Bernardino Development Code. The project would also comply with occupational noise safety requirements and provide hearing protection to workers during demolition activities. Noise generated during these activities would be controlled with implementation of the existing Noise COCs in the Decision and the adoption of the new Noise COCs. Construction equipment would be muffled in accordance with manufacturers' specifications and given that the nearest sensitive receptor is over 1 mile from the project site, the demolition activities would not exceed the acceptable noise levels for residential areas.

The CEC staff concludes that with the adoption of the new COCs **D-NOISE-1** to **D-NOISE-3**, the decommissioning and demolition activities would comply with the applicable LORS and would result in less-than-significant adverse noise impacts.

Public Health. Potential risks to public health during decommissioning and demolition would be associated with contact or exposure to hazardous waste, exposure to toxic substances in contaminated soil, as well as diesel exhaust from off-road equipment

operation during demolition activities. Staff concludes that implementation of proposed COCs, **D-PH-1**and **D-PH-2**, in addition to staff and project owner proposed conditions in the **Air Quality**, **Hazardous Materials Management**, **Worker Safety and Fire Protection**, and **Waste Management** sections of this staff analysis, would ensure that the decommissioning and demolition activities outlined in the SEGS IX Final Decommissioning Plan would comply with applicable LORS and would not result in significant impacts to public health.

Socioeconomics. The decommissioning of SEGS IX would take approximately 6 to 8 months to complete, beginning as early as August 2023. Demolition activities associated with decommissioning would require a peak workforce of approximately 60 workers. The large workforce in the Riverside-San Bernardino-Ontario Metropolitan Statistical Area (MSA) is sufficient for the activities associated with decommissioning of SEGS IX. If some workers were to temporarily relocate closer to the project site, there is sufficient housing in the nearby city of Barstow. The decommissioning of SEGS IX would have less than significant impacts to socioeconomics.

Soil and Water Resources. Decommissioning activities would take place within the existing facility footprint. In addition to the existing COCs in the Decision, the project owner is proposing three additional conditions, **D-S&W-1** through **D-S&W-4**, to ensure that impacts of the decommissioning and closure activities on soil and water resources would be less than significant. Condition of Certification **D-S&W-1** requires the project owner to submit a notice of intent for construction under the General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Storm Water Associated with Construction Activity to the State Water Resources Control Board (SWRCB). According to Condition **D-S&W-2** the project owner would develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the decommissioning and demolition of SEGS IX. The SWPPP would identify erosion control measures to be implemented and maintained during decommissioning and demolition activities. The SWPPP would be submitted to San Bernardino County for review and comment and to the CPM for approval prior to the start of decommissioning activities. Condition **D-S&W-3** requires that any underground utility lines and piping that will be abandoned in place shall be cut, grouted, and capped at or below the ground surface. A map of all abandoned in place utility lines and piping shall be prepared and submitted before decommissioning and closure are finalized.

Condition **D-S&W-4** requires that the project owner shall update the 1992 Evaporation Ponds Closure Plan prior to evaporation pond closure and submit to the Lahontan RWQCB for review. A copy of the final version of the revised plan shall be provided to CPM.

Staff concludes that the proposed decommissioning of the facility would not result in significant environmental impacts in terms of soil and water resources, provided that the owner complies with the existing COCs in the Decision as well as conditions proposed by the project owner, **D-S&W-1** through **D-S&W-4**. The proposed

decommissioning would not require any change to the COC"s related to soil and water resources in the Decision for SEGS IX.

Transportation. The proposed activities would generate a maximum of 21 daily truck trips during the 6 to 8-month decommissioning and demolition period. Transportation COCs, **TRAFFIC-1** through **3** in the Decision are applicable to decommissioning and demolition. The project owner has proposed COCs **D-TRAFFIC-1** and **D-TRAFFIC-2** to be implemented during decommissioning and demolition. **D-TRAFFIC-1** would require a Construction Management Plan to ensure compliance with the San Bernardino County Congestion Management Program's objectives and policies. **D-TRAFFIC-2** would require the use of licensed haulers and approved vehicles to ensure compliance with all applicable regulations for the transport of hazardous, toxic, and flammable materials.

The SEGS IX decommissioning and demolition activities would generate a negligible amount of temporary vehicle trips, which would not conflict with CEQA Guidelines section 15064.3, subdivision (b), with regards to vehicle miles traveled. Additionally, with the implementation of Transportation COCs, **1** through **3** in the Decision and **D-TRAFFIC-1** and **D-TRAFFIC-2** in the Decommissioning Plan, the proposed activities would not conflict with LORS addressing the circulation system, substantially increase hazards, or result in inadequate emergency access. The decommissioning of SEGS IX would have less than significant impacts to transportation.

Transmission Line Safety and Nuisance. The project owner is proposing to decommission SEGS IX to make way for a solar photovoltaic (PV) facility (not under CEC jurisdiction). The existing generator tie-line and switchyard would remain in place and be used for the future solar PV facility. During safe layup, the SEGS IX would be isolated from the generator tie-line by disconnection of the generator tie-line conductors between the switchyard and the associated substation. On-site transmission poles and conductors would remain in place if they can be used to support the future Lockhart Solar PV facility; otherwise, they would be removed. Conductors would either be sold as scrap metal to be recycled or sent to a licensed disposal facility. The SEGS IX substation would be removed.

Staff concludes the decommissioning activities outlined in the SEGS IX Final Decommissioning Plan would not result in significant transmission line safety and nuisance impacts. Any onsite worker safety considerations associated with the transmission line decommissioning and demolition activity would be addressed through **Worker Safety and Fire Protection** requirements.

Transmission System Engineering. The demolition activities would not involve the generator tie-line. The existing 13.5-mile 220 kilovolt (kV) generator tie-line would remain in place and would be utilized for the BESS and future PV facility. No COCs in the Decision apply to the demolition from a transmission system engineering perspective. Therefore, decommissioning would not affect Transmission System Engineering.

Visual Resources. Review of aerial and street imagery shows the project site is not located within a scenic vista as defined by staff, and the decommissioning and demolition activities would not substantially damage scenic resources or degrade the visual character or quality of public views of the site and its surroundings.

Demolition activities would occur during daylight hours. Existing facility lighting and temporary lighting would be used to maintain site security at night. Outdoor lighting would be directed away from surrounding properties and the public right of way. Light fixtures would be hooded/shielded.

The demolition of SEGS IX would remove parabolic troughs and their reflectivity, a power block with a cooling tower and its emitted publicly visible water vapor plumes.

Staff concludes decommissioning of the facility would comply with LORS and would not substantially damage or degrade a scenic vista, scenic resources, or the existing visual character or quality of public views of the project site and its surroundings. The decommissioning of SEGS IX would have less than significant impacts to visual resources.

Waste Management. Based on the final decommissioning plan provided by the owner, after cessation of operations, all remaining nonhazardous wastes would be collected and disposed of in appropriate recycling centers, landfills, or waste collection facilities according to all applicable LORS. Hazardous wastes would be disposed of according to all applicable LORS. The site would be secured 24-hours per day during decommissioning activities (LSA 2022).

Based on the information provided by the project owner, staff concludes the proposed decommissioning of the facility would not result in significant waste management impacts. The proposed decommissioning would not require any change to the COCs related to waste management adopted by the CEC in its Decision for SEGS IX (CEC 1990).

Worker Safety and Fire Protection. Industrial environments are potentially dangerous during the demolition of facilities. Workers involved in the proposed demolition of SEGS IX would be exposed to loud noises, moving equipment, trenches, and confined space ingress and egress problems. The workers may experience falls, trips, burns, lacerations, and numerous other injuries. They have the potential to be exposed to falling equipment, materials or structures, chemical spills, hazardous waste, fires, explosions, and electrical sparks and electrocution.

The project owner proposed condition, **D-WS-1**, would require the project owner to prepare or update the existing Health and Safety Plan elements to reflect the activities expected during decommissioning and demolition and to provide them to the CPM for approval. In addition, the proposed condition **D-WS-2** would ensure that all construction workers and visitors would undergo the required worker safety training. With the implementation of proposed conditions **D-WS-1** and **D-WS-2**, the demolition of the facility would not have a significant impact on worker health and safety and would comply with applicable LORS.

Environmental Justice. Staff concludes that implementation of the SEGS IX Final Decommissioning Plan would not result in significant adverse environmental impacts, and would comply with all applicable and current LORS, with implementation of existing conditions of certification in the SEGS IX Decision and the additional proposed COCs, and thus impacts would be less than significant on the EJ population represented in **Environmental Justice Figure 1**, **Figure 2**, and **Table 1**.

STAFF RECOMMENDATIONS AND CONCLUSIONS

The CEC staff concludes that implementation of the SEGS IX Final Decommissioning Plan would not result in significant adverse environmental impacts, and would comply with all applicable and current LORS, with implementation of existing COCs in the SEGS IX Decision and the additional proposed conditions in the areas of Air Quality, Biological Resources, Cultural Resources, Hazardous Materials Management, Land Use, Noise, Public Health, Soil and Water Resources, Transportation, and Worker Safety and Fire Protection. Further staff concludes that decommissioning of the SEGS IX facility and termination of certification do not meet any of the criteria set forth in Public Resources Code section 21166 and CCR, title 14, section 15162, that would necessitate the preparation of a subsequent or supplemental environmental document. Staff recommends that the CEC approve the Final Decommissioning Plan and adopt the new proposed COCs to make them binding and enforceable by staff during the decommissioning process. Staff recommends that upon staff and DCBO confirmation that decommissioning has been completed, consistent with the Final Decommissioning Plan, the facility's certification terminates allowing the site to be repurposed under the jurisdiction of the local government.

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
AIR QUALITY AND GREENHOUSE GASES

Tao Jiang

INTRODUCTION

In this section, the CEC staff discusses the proposed SEGS IX decommissioning and demolition, as described in the Final Decommissioning Plan (TN242500) in relation to the technical area of **Air Quality and Greenhouse Gases**. The purpose of this analysis is to determine whether decommissioning and demolition of the facility would avoid significant impacts on air quality and greenhouse gases (GHG) and would be in compliance with applicable laws, ordinances, regulations, and standards (LORS).

EXISTING SETTING

SEGS IX is an existing 80-MW solar thermal power plant located at 43880 Harper Lake Road, in an unincorporated portion of San Bernardino County. The facility uses parabolic mirrors to concentrate solar energy onto heat transfer fluid, which is used to create steam to generate solar thermal electricity. Depending on the amount of sunlight available, natural gas heaters are also used to create enough thermal energy. After decommissioning is completed and the CEC's license is terminated, the project owner proposes to replace the current solar thermal facilities with cleaner solar PV facilities. The project decommissioning would generate short-term decommissioning/demolition-related emissions. However, implementation of solar PV technologies would be approved and overseen by San Bernardino County, not the CEC. The decommissioning/demolition of SEGS IX would represent a net air quality and GHG benefit due to the elimination of the natural gas fired heaters and cooling tower emissions.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The following federal, state, and local LORS and policies pertain to the emissions and the mitigation of air quality and GHG impacts during the decommissioning. Staff's analysis describes or evaluates the proposed facility's compliance with these requirements, shown in **Air Quality Table 1**.

Air Quality Table 1
Laws, Ordinances, Regulations, and Standards (LORS)

Applicable LORS	Description	Consistency Determination
Federal		
40 Code of Federal Regulations Part 60 – NSPS, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Establishes emission standards for stationary compression ignition internal combustion engines, including emergency fire water pump and generator engines over a specific size.	**Consistent:** All the stationary engines operated as part of the power plant would be shut down, drained of fluids (fuel and lubricants), and potentially sold off/recycled before the start of demolition. No MDAQMD permits would be required for the decommissioning and demolition activities. If portable equipment requiring permits is used, that equipment would be registered through, and comply with, the California Air Resources Board (CARB), Portable Equipment Registration Program (PERP).
Title V Permits	Sets forth permitting requirements for major sources of emissions across the country.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. Once operations cease for SEGS IX, the Title V permit would be retired.
State		
Title 17 California Code of Regulations (CCR), Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition Engines	Establishes emission limits, operating limits, fuel use restrictions, monitoring and recordkeeping requirements for large (>50 hp) stationary compression ignition engines, including emergency fire water pump and generator engines.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. If portable equipment requiring permits is used, that equipment would be registered through the California Air Resources Board Portable Equipment Registration Program (CARB PERP).

California Health & Safety Code(H&SC) §41700 (Nuisance Regulation)	Prohibits discharge of such quantities of air contaminants that cause injury, detriment, nuisance, or annoyance.	**Consistent:** The Project Owner would ensure the contractor would comply with this requirement.
California H&SC §2451, et seq. (Portable Equipment Registration Program – PERP)	Allows the permitting of Portable equipment under a Statewide registration program.	**Consistent:** If portable equipment requiring permits is used for the decommissioning and demolition activities, that equipment would be registered through the CARB PERP.
Title 13, CCR, Article 4.8, Chapter 9, Section 2449, Regulation for In-Use Off-Road Diesel-Fueled Fleets	Establishes requirements for diesel-fueled, mobile off-road vehicle fleets in order to reduce criteria pollutant emissions from engines greater than 25 hp, including requirements on excess idling, CARB assigned equipment identification numbers, and year-by-year fleet average requirements, as well as recordkeeping and reporting.	**Consistent:** An Air Quality Supervisor (AQS) shall be responsible for determining the compliance status of all mobile off-road equipment that would be operated during decommissioning at the Project site, including verifying that all equipment is properly identified and that equipment fleets meet the appropriate annual reporting and compliance schedules.
Title 13, CCR, Division 3, Chapter 1, Section 2025, Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants for In Use Heavy Duty Diesel-Fueled Vehicles.	Regulates diesel–fueled, on highway vehicles over 14,000 pounds Gross Vehicle Weight Rating (GVWR) by establishing dates by which certain model year engines can no longer be operated in California, with separate requirements for medium-duty (14,000-26,000 GVWR) and heavy duty (over 26,000 GVWR) vehicles, including recordkeeping and reporting for some vehicles.	**Consistent:** The AQS shall be responsible for determining the compliance status of all mobile on-road vehicles over 14,000 GVWR that are used in any capacity during the decommissioning and demolition of the Project.

Local	**Mojave Desert Air Quality Management District (MDAQMD)**	
Rule 201 – Permit to Construct, Rule 202- Temporary Permit to Operate, Rule 203 – Permit to Operate	Rules 201, 202 and 203 require that permits be obtained for any equipment that emits air contaminants.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. If portable equipment requiring permits is used, that equipment would be registered through the CARB PERP.
Rule 401 – Visible Emissions	Limits visible emissions from applicable equipment or processes to values no darker than Ringelmann #1 for periods greater than 3 minutes in any hour.	**Consistent:** The project owner would ensure that the demolition contractor complies with this requirement through compliance with proposed **D-AQ-4**.
Rule 402 – Nuisance	Prohibits emissions in quantities that would adversely affect public health, other businesses, or property.	**Consistent:** The project owner would ensure that the demolition contractor complies with this requirement.
Rule 403.2 – Fugitive Dust	Limits fugitive PM emissions from transport, construction, handling and storage activities.	**Consistent:** The project owner would ensure the contractor uses appropriate dust suppression mitigation to limit fugitive PM emissions consistent with the requirements outlined in Rule 403.2, including preparing a Dust Control Plan that describes all applicable dust control measures that will be implemented. Implementation of proposed condition **D-AQ-1** will ensure compliance with this rule.
Rule 404 – Particulate Matter Concentration	Limits PM emissions concentration from point sources.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.

Rule 405 – Solid Particulate Matter Weight	Limits PM emissions based on process weight.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.
Rule 407 – Liquid and Gaseous Contaminants	Limits CO emissions from combustion sources.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment
Rule 409 – Combustion Contaminants	Limits emissions of combustion contaminants.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.
Rule 431 – Sulfur Content of Fuels	Limits sulfur content of liquid and solid fuels.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.
Regulation II– Permits	Sets forth permitting requirements for large stationary sources.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment. Once operations cease for both SEGS IX, the Title V permit will be retired.
Regulation XIII – New Source Review	Sets forth the preconstruction review requirements for new, modified or relocated facilities.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.

Regulation XV – Emission Standards for Specific Toxic Air Contaminants	Sets limits on toxic air contaminants from stationary sources.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. If portable equipment requiring permits is used for the decommissioning activities, that equipment will be registered through the CARB PERP.
Regulation XVI-Prevention of Significant Deterioration	Sets forth the pre-construction review of all new Major Prevention of Significant Deterioration (PSD) Facilities and Major PSD Modifications requirements for stationary sources.	**Consistent:** No MDAQMD permits would be required for the decommissioning and demolition activities. This requirement would not apply to PERP registered equipment.

APPLICABLE CONDITIONS OF CERTIFICATIONIN DECISION

None of the COCs in the SEGS IX Final Commission Decision (or subsequent amendments) would apply during the decommissioning and demolition to mitigate air quality and GHG effects or ensure LORS compliance.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

The project owner proposed the following COCs during decommissioning and demolition to ensure that activities conform with applicable LORS. The CEC staff concurs with project owner's proposal and adds one new COC shown in **bold/underline**.

D-AQ-1: Prior to the issuance of decommissioning permits or approvals, the project owner shall develop a Dust Control Plan (DCP) per the requirements of Mojave Desert Air Quality Management District (MDAQMD) Rule 403.2. The DCP shall comply with MDAQMD Rules 403 and 403.2 to control fugitive dust, including particulate matter less than 10 microns in size (PM10), by addressing objectives, key contacts, roles and responsibilities, dust sources, and control measures.

Verification: The project owner shall submit the DCP and any modifications to the compliance project manager (CPM) within five working days of its submittal to MDAQMD.

D-AQ-2: On-road trucks shall comply with United States Environmental Protection Agency (USEPA) 2010 on-road emission standards or better, unless the contractor can reasonably demonstrate that such equipment is unavailable to the satisfaction of the MDAQMD.

Verification: The project owner shall submit to the CPM a Monthly Compliance Report (MCR) which demonstrates compliance with condition **D-AQ-2**.

D-AQ-3: The project owner shall ensure that all applicable portable equipment used by the demolition contractor shall be registered through the California Air Resources Board (CARB) Portable Equipment Registration Program (PERP).

Verification: The project owner shall submit to the CPM an MCR which demonstrates compliance with condition **D-AQ-3**.

D-AQ-4: The project owner shall ensure that equipment used during decommissioning complies with MDAQMD Rule 401 to ensure visible emissions from applicable equipment would avoid visible emissions darker than Ringelmann #1 for periods greater than 3 minutes in any hour.

Verification: The project owner shall submit to the CPM an MCR which demonstrate compliance with condition**D-AQ-4.**

D-AQ-5: The project owner shall ensure that the Air Quality Supervisor (AQS) performs oversight of compliance with the decommissioning conditions and applicable laws, ordinances, regulations, and standards (LORS) during decommissioning and demolition activities.

Verification: At least 60 days prior to the start of decommissioning, the project owner shall submit to the CPM, for approval, the name and contact information for the AQS and/or AQS delegates. The project owner shall submit to the CPM an MCR which demonstrate compliance with condition **D-AQ-5.**

D-AQ-6: Off-road construction equipment shall comply with the US Environmental Protection Agency's final Tier 4 exhaust emission standards. An exemption from these requirements may be granted by the CEC in the event that the Project Owner documents that equipment with the required tier is not reasonably available and the Project Owner proposes to replace that equipment with similar sized equipment which meets the next most stringent standard available (i.e., the Project Owner must seek replacement equipment that meets Tier 4 Interim standards, and only when none are found to be reasonably available, seek equipment meeting Tier 3 standards, etc.).

Verification: The project owner shall submit to the CPM a MCR within 30 days of the end of each month to demonstrate compliance with condition D-AQ-6.

ANALYSIS

The proposed decommissioning and demolition of SEGS IX would generate emissions of criteria pollutants, including oxides of nitrogen (NOx), carbon monoxide (CO), volatile organic compounds (VOC), particulate matter less than 10 microns (PM10), fine particulate matter less than 2.5 microns (PM2.5) and oxides of sulfur (SOx), as well as greenhouse gases. The proposed decommissioning and demolition process would last a total of approximately 9 months. Decommissioning activities would generate emissions from fugitive dust, tailpipe emissions from construction equipment used, waste/recycling truck trips, and construction worker commutes.

Total estimated criteria pollutant and GHG emissions during decommissioning and demolition as estimated by the project owner are summarized in **Air Quality Table 2** and **3.** Staff verified the project owner's calculations. The emissions are also compared with MDAQMD emissions thresholds.

Air Quality Table 2
SEGS IX Decommissioning and Demolition Daily Emissions (lbs/day)

Construction Stage	CO	VOC	NOx	SOx	PM10	PM2.5	CO2e
Stage 1 –Safe Layup and HTF Removal	0.66	6.01	8.75	0.03	40.27	4.31	3,503
Stage 2 –Dismantling and Demolition of Above-ground Structures	1.67	16.36	64.16	0.18	41.77	4.77	18,910
Stage 3 –Concrete Removal and Crushing	2.30	22.39	121.88	0.33	42.63	5.24	34,863
Stage 4 – Removal/Dismantling of Underground Utilities	1.39	13.74	39.06	0.11	40.99	4.58	11,974
Stage 5 – Evaporative Pond Closure	1.39	13.67	39.01	0.11	37.21	4.01	11,962
Maximum Daily Emissions	2.30	22.39	121.88	0.33	42.63	5.24	34,863
MDAQMD Threshold	548	137	137	137	82	65	548,000
Exceedance	No	No	No	No	No	No	No

Source: TN242500, Appendix C.

Air Quality Table 3
SEGS IX Decommissioning and Demolition Annual Emissions (tons/year)

Construction Stage	CO	VOC	NOx	SOx	PM10	PM2.5	CO2e
Stage 1 – Safe Layup and HTF Removal	0.013	0.15	0.26	0.001	2.20	0.25	105.1
Stage 2 – Dismantling and Demolition of Above-ground Structures	0.057	0.65	2.89	0.008	2.02	0.26	851
Stage 3 – Concrete Removal and Crushing	0.06	0.62	3.66	0.01	2.23	0.27	1,046
Stage 4 – Removal/Dismantling of Underground Utilities	0.01	0.18	0.59	0.00	2.20	0.25	180
Stage 5 – Evaporative Pond Closure	0.03	0.35	1.16	0.00	2.01	0.22	357
Total Annual Emissions	0.17	1.95	8.56	0.02	10.65	1.24	2,539
MDAQMD Threshold	100	25	25	25	15	12	100,000
Exceedance	No	No	No	No	No	No	No

Source: TN242500, Appendix C.

As shown in **Air Quality Tables 2** and **3**, the emissions from the decommissioning and demolition would not exceed the MDAQMD significance thresholds for any criteria pollutants and GHG emissions. Therefore, the air quality and GHG impact from the project decommissioning and demolition would be less than significant. To ensure the decommissioning and demolition activities would conform with applicable LORS, the project owner proposed new conditions **D-AQ-1** through **D-AQ-5**, and staff added one additional condition **D-AQ-6,** as shown above. Staff concurs with project owner's proposal and adds one new COC.

CONCLUSIONS AND RECOMMENDATIONS

The emissions from the proposed demolition and decommissioning of SEGS IX are temporary and less than MDAQMD significance thresholds. Staff concludes that with the adoption of the new COCs **D-AQ-1** to **D-AQ-6**, the decommissioning and demolition would not result in significant adverse air quality and GHG emissions impacts.

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
BIOLOGICAL RESOURCES

Ann Crisp

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX Facility Decommissioning Plan and Petition to Terminate License (TN 242500) in relation to the technical area of **Biological Resources**. The purpose of this analysis is to determine whether decommissioning and demolition of the project would be undertaken in a manner that avoids significant impacts on biological resources and would be in compliance with applicable laws, ordinances, regulations, and standards (LORS).

EXISTING SETTING

The project owner submitted a biological survey report to support the conditional use permit process with the County of San Bernardino for future redevelopment of the site for a solar photovoltaic facility (TN 242500). The SEGS IX site, located along Harper Lake Road in the Mojave Desert near the town of Hinkley, consists of highly disturbed areas of bare ground and developed areas (i.e., solar fields and associated infrastructure, evaporation ponds, and open areas) almost entirely devoid of any habitat for plants or wildlife. Soils within the existing facility are highly compacted and vegetation is limited to trace amounts of non-native grasses and forbs. Three lined evaporation ponds are in the northwest section of the site shared with SEGS VIII and currently hold process water. Surrounding land is primarily open space with disturbed saltbush scrub immediately adjacent to the SEGS IX site and Desert Tortoise Critical Habitat to the west of SEGS VIII.

Based on topographic 9-quadrangle database record searches, there are 10 special-status plants species and 17 special-status wildlife species known to occur within the vicinity of the site. Most are either not expected or have a low potential to occur within the site. No special-status plant or wildlife species or vegetation communities were observed within the existing facility site during the survey (TN242500). However, there is potential for desert tortoise (*Gopherus agassizii*), American badger (*Taxidea taxus*), desert kit fox (*Vulpes macrotisarsipus*), Mohave ground squirrel (*Xerospermophilus mohavensis*), and western burrowing owl (*Athene cunicularia*), as well as special status birds to occur in the project vicinity, including along Harper Lake Road, the access road for the decommissioning and demolition.

The desert tortoise exclusionary fencing that is currently in place around the shared facility sites (SEGS VIII and SEGS IX) would continue to be maintained during decommissioning activities. This fence prevents access to the site by desert tortoise and most other wildlife species.

Critical habitat is a formal designation under the federal Endangered Species Act for specific, legally defined areas that are essential for the conservation of listed species, including desert tortoise, that support physical and biological features essential for listed species survival, and that may require special management considerations or protection. The project area does not overlap with any designated or proposed critical habitat units; however, the Fremont Kramer and Superior-Cronese units of desert tortoise critical habitat are located in the surrounding area (USFWS 2022). In addition, the Superior-Cronese and Fremont-Kramer Desert Wildlife Management Areas (DWMAs) are located on the east and west sides of Harper Lake Road, respectively. These DWMAs are designated by BLM under the California Desert Conservation Area Plan (CDCA) and are managed with the goal of protecting desert tortoise

Bird nesting opportunities and wildlife movement are limited and relatively restricted throughout most of the site, respectively, due to a lack of vegetative cover onsite, and development and infrastructure within the site, including the desert tortoise exclusionary fencing around the perimeter of the site. However, existing structures may provide habitat for nesting birds and raptors, including power line towers. In addition, birds have been documented at the three evaporation ponds located at the northwest section of the project site throughout the life of the project.

As part of the decommissioning process and with termination of the license, the CEC's oversite of the Harper Lake Road Tortoise Monitoring and Fencing Agreement dated July 11, 1995, signed by CEC, BLM and Desert Tortoise Preserve Committee would end by operation of its terms, the Harper Lake Water Agreement, finalized on April 12, 2005, which set forth a water allocation plan as mitigation, ends upon termination of the of SEGS IX certification. These agreements are discussed further in the Biological Resources technical analysis below.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The following LORS related to biological resources apply to the project. No new LORS have been enacted since the project was permitted in 1988; although the San Bernardino County General Plan was updated in 2007. LORS are listed below in **Table 1-1**.

Technical Section Table 1-1
Laws, Ordinances, Regulations, and Standards

Applicable LORS	Description	Consistency Determination
Federal		
Endangered Species Act of 1973 Title 16, United States Code, section 1531 et seq., and Title 50, Code of Federal Regulations, part 17.1 et seq.	Designates and provides for the protection of threatened and endangered plant and animal species, and their critical habitat. The administering agency is the US Fish and Wildlife Service (USFWS).	**Consistent:** Implementation of existing conditions of certification and proposed decommissioning conditions **D-BIO-1, D-BIO-2,** and staff's proposed **D-BIO-3** would ensure the project would not result in impacts and would ensure consistency.
Migratory Bird Treaty Act: 16 USC Sections 703-721	Makes it unlawful to take or possess any migratory nongame bird (or any part of such migratory nongame bird including nests with viable eggs). The administering agency is the USFWS.	**Consistent:** Implementation of existing conditions of certification and proposed decommissioning conditions **D-BIO-1** and **D-BIO-2** would ensure the project would not result in impacts and would ensure consistency.
Clean Water Act (CWA) of 1977 Title 33, USC, sections 1251- 1376, and Code of Federal Regulations, part 30, sections 330.5(a)(26)	Prohibits the discharge of dredged or fill material into the waters of the United States without a permit. The administering agencies are the US Army Corps of Engineers and State Regional Water Quality Control Board	**Consistent:** Compliance during decommissioning activities would be managed through use of the existing Stormwater Pollution Prevention Plan (SWPPP) under **D-S&W-2**.
State		
Native Plant Protection Act of 1977, Fish and Game Code sections 1900–1913	Prohibits taking of endangered and rare plants from the wild and requires that California Department of Fish and Wildlife (CDFW) be notified at least 10 days in advance of any change in land use that would adversely impact listed plants.	**Consistent:** Decommissioning and demolition would be limited to previously disturbed and developed areas and would not result in impacts to native plants.

California Endangered Species Act of 1984, Fish and Game Code sections 2050 through 2098	Protects California's rare, threatened, and endangered species. The administering agency is CDFW.	**Consistent:** Implementation of existing conditions of certification and proposed decommissioning conditions **D-BIO-1, D-BIO-2,** and staff's proposed **D-BIO-3** would ensure the project would not result in impacts and would ensure consistency.
California Code of Regulations Title 14, Division 1, Subdivision 3, Chapter 3, sections 670.2 and 670.5	Lists the plants and animals of California that are declared rare, threatened, or endangered. The administering agency is CDFW.	**Consistent:** Implementation of existing conditions of certification and proposed decommissioning conditions **D-BIO-1, D-BIO-2,** and staff's proposed **D-BIO-3** would ensure the project would not result in impacts and would ensure consistency.
California Code of Regulations (Title 14, sections 460)	Provides information regarding the protection and take of furbearing mammals. This regulation makes it unlawful to take fisher, marten, river otter, desert kit fox and red fox. The administering agency is CDFW.	**Consistent:** Implementation of existing conditions of certification and proposed decommissioning conditions **D-BIO-2** would ensure the project would not result in impacts and would ensure consistency.
Fully Protected Species (Fish and Game Code, sections 3511, 4700, 5050, and 5515)	Designates certain species as fully protected and prohibits the take of such species or their habitat unless for scientific purposes (see also Title 14, California Code of Regulations, section 670.7). The administering agency is CDFW.	**Consistent:** Decommissioning and demolition activities would not result in any impacts to fully protected species.

Nest or Eggs (Fish and Game Code, section 3503)	Protects California's birds by making it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. The administering agency is CDFW.	**Consistent:** Implementation of existing conditions of certification and proposed decommissioning conditions **D-BIO-1** would ensure the project would not result in impacts and would ensure consistency.
Migratory Birds (Fish and Game Code section 3513)	Protects California's migratory birds by making it unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame birds. The administering agency is CDFW	**Consistent:** Implementation of existing conditions of certification and proposed decommissioning conditions **D-BIO-1** would ensure the project would not result in impacts and would ensure consistency.
Lake and Streambed Alteration (Fish and Game Code, sections 1600 et seq.)	Regulates activities that may divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake in California designated by CDFW in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit. Impacts to vegetation and wildlife resulting from disturbances to waterways are also reviewed and regulated during the permitting process. The administering agency is CDFW.	**Consistent:** Decommissioning and demolition activities would not result in any impacts to waters of the state or state jurisdictional streambed features.
Local		

San Bernardino County General Plan (2007) – Conservation Element	This General Plan contains general policies regarding the protection and preservation of habitat and sensitive plant and wildlife species.	**Consistent:** Activities associated with decommissioning have the potential to facilitate the introduction of invasive species due to ground disturbance. Invasive plant species growth could suppress native vegetation and infest agricultural lands. However, the project site is developed, and decommissioning activities would be restricted to the site and therefore would not impact habitat. Decommissioning and demolition activities would not result in any conflicts with the General Plan Goals, Policies, or Objectives.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

The following COCs reflect those originally imposed on the project, including those modified through subsequent amendments. These COCs were developed to reduce the significant biological impacts of the SEGS Unit IX project to acceptable levels and are now considered appropriate to reduce any potential impacts from the decommissioning of SEGS IX to below the level of significance.

The CEC staff's proposed changes to the existing COCs are shown in **bold/underline** and ~~strikethrough~~ text. Any portion of the COCs that are not applicable have not been included. In addition, any COCs that do not apply to decommissioning have not been included. They retain original numbering. Additionally, in the applicable COCs, all instances of the former project owner, Luz, has been replaced with "project owner" to reflect the change in project owner.

BIO-2 ~~[Luz]~~ **The project owner** shall not begin **decommissioning activities** until a qualified biologist has been designated to advise on the implementation of these conditions of certification, and to supervise or conduct mitigation, monitoring, and other biological resources compliance efforts.

The ~~d~~**D**esignated~~b~~ **B**iologist shall be responsible for providing the project construction engineer with advice regarding biological resource mitigation implications of any surface disturbing action to be carried out for this project. Until an action, which shall conform

to the certified project design, is reviewed and approved by the ~~d~~**D**esignated~~b~~ **B**iologist, work cannot proceed. Any such approvals shall be documented in writing.

The Project Owner shall ensure that the ~~d~~**D**esignated~~b~~ **B**iologist meets the following minimum qualifications:

1. A bachelor's degree in biological science, zoology, botany, ecology, or a closely related field, and
2. Current certification of a nationally recognized biological society, such as the Ecological Society of America or the Wildlife Society or a minimum of three years' experience in field biology.
3. **At least one year of field experience with biological resources found in or near the project area.**

The biologist must demonstrate to the satisfaction of the staff appropriate education and experience for the biological tasks. The supervising construction or operations engineer will act on the advice of the biologist to ensure conformance with the Biological Resources Mitigation Implementation Plan (BRMIP) and the terms and conditions of CEC certification.

At least 30 days before starting ~~site preparation~~ **decommissioning activities**, the Project Owner shall provide to the CEC CPM for review and approval, the name, qualifications, **email address,** address, and telephone number of the ~~d~~**D**esignated~~b~~ **B**iologist. If there is to be a subsequent change in who the designated biologist will be, the Project Owner shall obtain approval of the new biologist by submitting to the CEC CPM the name, qualifications, address, and telephone number of the proposed replacement **at least ten (10) working days prior to the termination or release of the preceding Designated Biologist**. An interview by the CEC CPM may be required.

Verification: At least 30 days prior to ~~site preparation~~ **decommissioning activities**, the Project Owner will submit to the CEC CPM the name, qualifications, **email address,** address, and telephone number of the individual selected as the designated biologist. If there is to be a change in who the ~~d~~**D**esignated~~b~~ **B**iologist will be, the Project Owner will submit the name, qualifications, address, and telephone number of the proposed replacement **at least ten (10) working days prior to the termination or release of the preceding Designated Biologist**.

BIO-3 Prior to any **decommissioning activities** on SEGS Unit IX ~~& X~~ or on areas where ancillary project facilities exist, the ~~d~~**D**esignated~~b~~ **B**iologist shall conduct or supervise the designation of off-limit areas where surface disturbance is to be avoided. Such areas shall be defined by temporary taping or flagging in conjunction with posting signs prohibiting entrance of construction crews.

Surface disturbance of any native habitats shall be strictly controlled so as to minimize impacts. Parking areas and temporary construction yards shall be sited on previously disturbed habitat to the maximum extent feasible.

~~Any surface disturbance to be carried out for this project that is not reflected in the certified project design and has not previously been reviewed for biological resource implications and approved by the designated biologist in consultation with the CEC CPM, shall not proceed until said biologist determines that the disturbance will cause no significant impacts and, in consultation with the CEC CPM approves the action to be taken.~~
~~All such approvals shall be documented in writing by the designated biologist who, in turn, shall notify the CEC CPM through weekly activity reports when such approved actions are scheduled to take place.~~

Verification: ~~Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.~~ **These measures shall be included in the BRMIP and implemented. Implementation of the measures shall be reported in the monthly compliance reports by the Designated Biologist. Within 30 days after completion of decommissioning and demolition, the project owner shall provide to the CPM, for review and approval, a written demolition completion report (DCBO Final Close Out Letter) identifying how measures have been completed and which items are still outstanding.**

BIO-4 Off-road travel by ~~[Luz]~~ project personnel, contractors, and subcontractors, shall be prohibited in all native habitats considered sensitive biological areas associated with the project during ~~construction and operation~~ **decommissioning activities**. Such areas shall be posted prior to initiation of ~~construction~~ **decommissioning activities**. Limitation of off-road travel and reasons for restrictions shall also be discussed in the employee environmental awareness program.

Off-road travel restrictions shall apply to native habitats adjacent to the SEGS Unit IX ~~&~~ ~~X~~ project site and to native habitats on all other ~~Luz~~ **project-related** property. Restrictions shall also be extended to the area of the Harper Lake wetlands.

Notwithstanding the above restrictions governing off-road travel, the ~~d~~**D**esignated~~b~~ **B**iologist and/or personnel under his or her supervision, in carrying out appropriate duties, may travel off-road as is necessary to successfully complete assigned tasks.

Verification: ~~Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.~~ **These mitigation measures shall be included in the BRMIP and implemented. Implementation of the measures shall be reported in the monthly compliance reports by the Designated Biologist. Within 30 days after completion of decommissioning and demolition, the project owner shall provide to the CPM, for review and approval, a written demolition completion report (DCBO Final Close Out Letter) identifying how measures have been completed and which items are still outstanding.**

BIO-7 Speed limits on and near SEGS Unit IX ~~& X~~ shall be posted and limits shall be developed with consideration for potential wildlife mortalities. Speed limits shall vary

depending on the type of road and the degree of visibility. Speed limits shall be set in consultation with the ~~CDFG~~ **CDFW**. ~~Speed bumps or other effective speed control devices should be considered for long-term control.~~

Speed limits shall be established for SEGS Unit IX **during decommissioning and demolition activities**. ~~& X and for all Luz-owned property in the Harper Lake area.~~

Verification: ~~Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.~~ **These mitigation measures shall be included in the BRMIP and implemented. Implementation of the measures shall be reported in the monthly compliance reports by the Designated Biologist. Within 30 days after completion of decommissioning and demolition, the project owner shall provide to the CPM, for review and approval, a written demolition completion report identifying how measures have been completed and which items are still outstanding.**

BIO-8 ~~[Luz]~~ **The project owner** shall develop an employee environmental awareness program **(also known as worker environmental awareness program (WEAP))** to provide construction and operation employees with information to encourage awareness and preservation of the desert ecosystem and the key species and resources found at the ~~[Luz]~~ **project** facilities and in the western Mojave Desert. **The Project Owner shall prepare and print an educational brochure or pamphlet to be distributed to each employee at the time of hire. This information shall be distributed to and discussed with all Project Owner employees during employee orientation sessions. This information shall also be provided to all contractors or subcontractors that will be working on the job site. In addition, the material shall be available at a selected prominent location at the facilities.** In addition to the proposed employee environmental awareness program, ~~[Luz]~~ **the project owner** shall have each of its own employees, as well as employees of contractors and subcontractors, who participate in the environmental awareness program sign an affidavit declaring that the individual understands and will adhere to the guidelines set forth in the program material. These records shall be maintained by ~~[Luz]~~ **the project owner** for each employee as long as the individual employee works on the SEGS IX ~~& X~~ project, and be made available for review by the CEC CPM.

~~[Luz]~~ **The project owner** shall continue using the reporting form it developed for observations of sensitive species by employees on the job. This form is the same form developed for the SEGS VIII project. These completed observation forms shall be maintained by ~~[Luz]~~ **the project owner** ~~for the life of the project~~ **until termination of the license is complete** and be made available for review by the CEC CPM.

Verification: ~~[Luz]~~ **The project owner** will maintain and make available copies of affidavits signed by all its employees, its contractor's employees and its subcontractor's employees for as long as the employees work on the SEGS IX ~~& X~~ project. Copies of the

reporting forms for observation of sensitive species will also be maintained and made available for review.

BIO-9 ~~Luz~~ **The project owner** shall develop a strict trash and litter control program. Trash control is expected to increase a sense of responsibility in the work area and foster environmental awareness among employees. A litter control program shall consist of supplying an adequate number of covered trash and litter receptacles in all appropriate locations (including the water truck, water stations, and site exits) and encouraging employee use through the environmental awareness program, posters, and other means. Trash and litter disposal shall be in covered dumpsters or buried to avoid attracting ravens and thereby increasing the potential for raven predation on young tortoises.

Verification: ~~Prior to initiating actions necessary for implementing this condition of certification, Luz will notify the CEC CPM via a Weekly Activity Report as required through the Compliance General Provisions.~~ **The requirements of the trash and litter control program shall be included in the BRMIP and implemented. Implementation of the measures shall be reported in the monthly compliance reports by the Designated Biologist. Within 30 days after completion of decommissioning and demolition, the project owner shall provide to the CPM, for review and approval, a written demolition completion report identifying how measures have been completed and which items are still outstanding.**

BIO-12 ~~[Luz]~~ T**he project owner** shall submit a detailed BRMIP to the CEC CPM for review and approval before initiating any ~~clearing, earth moving, or other construction~~ **decommissioning** activities on SEGS IX ~~& X~~. The BRMIP shall include details for designing and implementing Biology Conditions of Certification **3** through **11, as applicable to decommissioning and demolition activities.**

Verification: At least 60 days prior to commencing site preparation activities **for decommissioning and demolition**, ~~[Luz]~~ **the project owner** will submit the draft BRMIP to the CEC CPM for review and approval in consultation with the ~~CDFG~~**CDFW**. Site preparation will not begin until the final BRMIP is approved. **Implementation of the BRMIP measures shall be reported in the monthly compliance reports by the Designated Biologist. Within 30 days after completion of decommissioning and demolition, the project owner shall provide to the CPM, for review and approval, a written demolition completion report identifying how measures have been completed and which items are still outstanding.**

BIO-13~~[Luz]~~ **The project owner** shall implement the monitoring and mitigation measures contained in the approved BRMIP and Commission Decision.

Project Owner will immediately report any adverse impacts, including death or injury, on rare, threatened, or endangered species by telephone to the CEC CPM, as well as the USFWS and/or CDFW, during the normal work week or by the noon the next working day following a weekend or holiday and shall submit a follow-up written report within 3 days after contact with CEC CPM. Injured animals shall be immediately reported to CDFW and/or USFWS and

the CEC CPM and the project owner shall follow instructions that are provided by CDFW or USFWS. If CDFW or USFWS cannot be immediately reached, consideration should be given to taking the animal to a veterinary hospital.

Verification: The approved BRMIP will be submitted to the CEC CPM prior to ~~site preparation~~ **decommissioning activities** on SEGS IX ~~& X~~. In ~~a~~ **the** monthly compliance ~~status~~ report, ~~[Luz]~~ **the project owner** will notify the CEC CPM, in writing, of successfully satisfying each condition in the BRMIP. If any conditions of the plan are not successfully satisfied, ~~[Luz]~~ **the project owner** will submit proposed corrective actions within 30 days to the CEC CPM for comment and approval.

The ~~[Luz]~~ **CPM-approved** ~~d~~**D**esignated~~b~~**B**iologist will include comprehensive statements in the Annual Compliance Report verifying activities conducted in compliance with the approved BRMIP and portions of the CEC decision pertinent to biological resources.

~~[Luz] will report any adverse impacts on rare, threatened, or endangered species by telephone to the CEC CPM within two working days during the normal work week or by the end of the next working day following a weekend or holiday and shall submit a follow-up written report within 10days after contact with CEC CPM.~~

BIO-14 ~~[Luz]~~ **The project owner** shall, in a timely manner, arrange for access by the CEC CPM or designated representative to inspect or monitor conditions of biological resources, impacts, mitigation measures, and study areas prior to and during ~~preconstruction, construction and operation~~ **decommissioning and demolition** activities on the SEGS Unit IX ~~& X~~ site and adjacent areas. The access shall be provided upon request and at the times necessary to conduct biological field observations.

Verification: ~~Luz~~ **The project owner** shall provide to the CEC CPM a letter of authorization to conduct site visits as specified above.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

The project owner proposes the following design measures to ensure that decommissioning activities conform with applicable LORS and to reduce impacts to less than significant levels (NextEra 2021d). These are presented below and are considered appropriate to ensure that activities conform with applicable LORS and reduce potential impacts to less than significant levels. Staff determined that **D-BIO-3** as proposed by the project owner is duplicative and unnecessary, as these measures were included in existing COCs **BIO-3, BIO-4, BIO-7, BIO-8,** and **BIO-9.** Staff has instead proposed a new COC **D-BIO-3** to reduce potential impacts to less that significant. Staff's proposed additions are depicted in **bold/underline**; deletions are shown in ~~strikethrough~~.

D-BIO-1 If **avoidance of decommissioning and demolition during the** bird breeding season (typically January through July for raptors and February through August for other avian species) ~~avoidance~~ is not feasible, ~~a qualified biologist~~ **the approved Designated Biologist** shall conduct a pre-construction nesting bird survey

for avian species to determine the presence/absence, location, and status of any active nests on or adjacent to the area proposed project site. The extent of the survey buffer area surrounding the nest shall be established by the ~~qualified biologist~~ **Designated Biologist** to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code, nesting bird surveys shall be performed twice per week during the three weeks prior to the scheduled project activities.

In the event that active nests are discovered, a suitable buffer (distance to be determined by the ~~d~~**D**esignated~~b~~**B**iologist) shall be established around such active nests, and no demolition or **decommissioning activities** within the buffer **shall be** allowed, until the **Designated**~~b~~ **B**iologist has determined that the nest(s) is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest). A nesting bird survey and monitoring report shall be prepared and submitted to the CPM at the conclusion of nesting season, and identification of any special-status species (including raptor) nesting behavior shall be reported within three business days.

Verification: ~~At~~ **The CPM-approved** Designated ~~b~~**B**iologist shall perform nesting bird surveys as indicated above; and shall also implement buffers immediately upon discovery of a nest. Written reports and photos (if available) shall be made to the CEC CPM of special status nesting birds on site, according to the above-specified timeline. A nesting bird survey and monitoring report containing photos, survey methodology, site conditions, and description of any avoidance measures (such as buffers) implemented during each survey shall be provided to the CEC CPM at the conclusion of each nesting season while work is being performed.

D-BIO-2 The desert tortoise fence that is in place will continue to be maintained during decommissioning activities.

Verification: The Designated Biologist shall monitor the viability of the desert tortoise fencing during decommissioning activities, and the Project Owner shall ensure that necessary repairs are made promptly. The condition of the fence shall be reported on in the **Monthly Compliance Report** ~~BRMIP, per BIO-6 Verification requirements.~~ Any major damage, such as blowouts due to rain events shall be reported to the CEC CPM within two business days and accompanied by photos and a written report.

~~**D-BIO-3** The biological resources mitigation implementation plan (BRMIP) will be revised for specific circumstances related to project decommissioning to minimize or avoid impacts to biological resources.~~

~~The Project Owner shall submit a detailed BRMIP to the CEC CPM before the initiation of any clearing, earth moving, or other construction activities on SEGS IX. The BRMIP~~

~~shall include details for designing and implementing the following measures as outlined in the original COCs BIO-3 through BIO-13:~~

~~a. Prior to any surface disturbance on SEGS IX, the designated biologist shall conduct or supervise the designation of off-limit areas where surface disturbance is to be avoided. Such areas shall be defined by temporary taping or flagging in conjunction with posting signs prohibiting entrance of construction crews. Parking areas and temporary construction yards shall be sited on previously disturbed habitat to the maximum extent feasible. A directive to avoid surface disturbance in native habitats shall also be included in the employee environmental awareness program.~~

~~b. Off road travel shall be prohibited in all native habitats considered sensitive biological areas associated with the project during construction and operation. Such areas shall be posted prior to initiation of construction. Parking areas for the pipeline and transmission line construction crews shall be designated. Limitation of off road travel and reasons for restrictions shall also be discussed in the employee environmental awareness program. Off-road travel restrictions shall apply to native habitats adjacent to the SEGS IX project site and to native habitats on all other Project Owner's property.~~

~~c. Speed limits on the SEGS IX shall be posted. Speed limits shall be established for SEGS IX.~~

~~d. The Project Owner shall develop an employee environmental awareness program to provide construction and operation employees with information to encourage awareness and preservation of the desert ecosystem and the key species and resources found at the Project Owner facilities and in the western Mojave Desert. The Project Owner shall prepare and print an educational brochure or pamphlet to be distributed to each employee at the time of hire. This information shall be distributed to and discussed with all Project Owner employees during employee orientation sessions. This information shall also be provided to all contractors or subcontractors that will be working on the job site. In addition, the material shall be available at a selected prominent location at the facilities. The Project Owner shall have each employee who participates in the environmental awareness program sign an affidavit declaring that the individual understands and will adhere to the guidelines set forth in the program material.~~

~~e. The Project Owner shall develop a strict trash and litter control program. Trash control is expected to increase a sense of responsibility in the work area and foster environmental awareness among employees. A litter control program shall consist of supplying an adequate number of covered trash and litter receptacles in all appropriate locations (including the water truck, water stations, and site exits) and encouraging employee use through the environmental awareness program, posters, and other means. Trash and litter disposal shall be in covered or buried dumpsters to avoid attracting ravens and thereby increasing any potential for raven predation on young tortoises.~~

~~**Verification:** At least 90 days prior to commencing site preparation activities, the Project Owner shall submit the draft BRMIP to the CEC CPM for review and approval. Site preparation shall not begin until the final BRMIP is approved by the staff. The approved BRMIP shall be submitted to the CEC CPM prior to site preparation on SEGS IX. In a monthly compliance report (MCR), the Project Owner shall notify the CEC CPM, in writing, of successfully satisfying each condition in the BRMIP.~~

~~If any conditions of the plan are not successfully satisfied, the Project Owner shall submit proposed corrective actions within 30 days to the CEC CPM for comment and approval. The Project Owner designated biologist shall submit to the CEC CPM monthly statements verifying activities conducted in compliance with the approved BRMIP permit conditions listed here, and any additional portions of the CEC decision pertinent to biological resources. These monthly statements shall be submitted beginning after start of site preparation and shall continue until all compliance activities have been completed.~~

~~The Project Owner shall report any adverse impacts on rare, threatened, or endangered species by telephone to the CEC CPM within two working days during the normal work week or by the end of the next working day following a weekend or holiday and shall submit a follow-up written report within 10 days after contact with CEC CPM.~~

Staff proposes a new COC **D-BIO-3** to reduce potential impacts to desert tortoise to less than significant.

D-BIO-3 Prior to the start and at the completion of decommissioning and demolition, the project owner shall photograph or videotape the entire length of the Harper Lake Road desert tortoise exclusion fence. The project owner shall provide the CEC CPM and the Desert Tortoise Preserve Committee with a copy of the images. The photograph or videotape shall document existing damage to the desert tortoise exclusion fence and culvert along Harper Lake Road. The project owner shall inspect and provide monthly inspection reports of the condition of the Harper Lake Road desert tortoise exclusion fence and culvert during the decommissioning and demolition period. The project owner will also report on any known instances of accidental damage to the fence or culvert, such as by a project related vehicle strike, during the decommissioning and demolition period. Restoration of significant damage which could cause an immediate hazard to wildlife (such as large gaps to the existing fence) attributable to the project shall take place after the damage occurs, as directed by the CEC CPM. The project owner shall prepare a report to be submitted to the CEC CPM that documents any additional damage to the desert tortoise exclusion fence and culvert since the initial survey. The report shall identify any damage that is likely attributable to the project for review and approval by the CEC CPM. Following completion of project decommissioning and demolition, the project owner shall repair or provide funding to repair any damage to the sections of Harper Lake Road desert tortoise exclusion fence and culvert affected by decommissioning and demolition activity to original condition or better or as near-

original condition as possible. The project owner shall ensure that any necessary repairs are made by a licensed contractor approved by the CEC CPM, in coordination the Desert Tortoise Preserve Committee.

Verification: The project owner shall submit the pre- and post-construction photograph or videos to the CEC CPM and the Desert Tortoise Preserve Committee within 2 weeks of completion. The project owner shall submit the monthly inspection reports as part of the Monthly Compliance Report and the final report within 30 days of completion of decommissioning and demolition activities. If damage to the Harper Lake Road desert tortoise exclusion fence or culvert occurs during decommissioning and demolition (attributable to the project) that is an immediate hazard to wildlife, the project owner shall notify the CPM, and the Desert Tortoise Preserve Committee, to identify the sections to be repaired. Within 30 days after completion of all project-related decommissioning and demolition, the project owner shall meet with the CEC CPM and the Desert Tortoise Preserve Committee representative to determine, receive approval for, and schedule the actions necessary to complete the repair of identified sections of Harper Lake Road desert tortoise exclusion fence or culvert, due to damage attributable to the project, to original condition or better or as near-original condition as possible. At that time, the project owner and CEC CPM shall establish a schedule for completion and approval of the repairs. Following completion of any repairs, the project owner shall provide the CEC CPM with evidence of the repairs.

ANALYSIS

The CEC staff has reviewed the Decommissioning Plan (plan) for conformance with applicable LORS and potential environmental effects.

LORS CONFORMANCE

With implementation of applicable COCs and newly proposed decommissioning conditions, as revised by staff, the decommissioning of the project would conform with all federal, state, and local LORS.

ENVIRONMENTAL IMPACTS

Based on literature review, database searches, and on-site habitat suitability assessments, it has been determined that the existing facility site does not contain suitable habitat for special-status plant or wildlife species. As stated above, no special-status plant or wildlife species were observed on the project site during the field surveys (TN242500). However, there is habitat for special-status plant and wildlife species located adjacent to the site and special-status species have been observed outside the site fence, including the former SEGS X site and along Harper Lake Road.

Birds may nest on the site in project equipment and other structures. Birds, including western burrowing owl, may also nest adjacent to the site in berms and abandoned pipes. Decommissioning and demolition activities could result in indirect disturbance of

nesting birds on or near the project site causing nest abandonment by the adults and mortality of chicks and eggs. Destruction of active bird nests, nest abandonment, and/or loss of reproductive effort caused by disturbance are considered "take" by the CDFW, and therefore would be significant impacts. Implementation of **D-BIO-1** would reduce potential impacts to protected raptors and other migratory birds to less than significant.

To prevent desert tortoise and other wildlife from entering the project site prior to and during decommissioning activities the project owner will continue to maintain the existing desert tortoise exclusion fencing per **D-BIO-2**. The project owner completes regular inspections of the fence as part of the requirements of the existing BRMIP and makes prompt repairs to any damage to the fence.

The CEC staff concludes that implementation of the proposed Decommissioning Plan would not result in potentially significant adverse impacts on biological resources, with implementation of existing Biological Resources COCs **BIO-2**, **BIO- 3**, **BIO-4**, **BIO-7**, **BIO-8**, **BIO-9**, **BIO-12**, **BIO-13** and **BIO-14** in the Commission Decision, and the approval of the project owner's newly proposed decommissioning conditions **D-BIO-1** and **D-BIO-2**, as modified by staff. Therefore, decommissioning activities would not have a substantial adverse effect on special-status species and impacts would be less than significant.

The CEC staff does not recommend approval of new owner-proposed conditions **D-BIO-3** as staff does not consider it to be necessary to mitigate environmental impacts or conform with LORS due to the project's existing COCs which remain applicable to decommissioning.

The SEGS VIII and IX evaporation ponds would be closed as part of SEGS IX decommissioning activities in accordance with Lahontan RWQCB regulations. This would provide a benefit to wildlife species as the evaporation ponds have a been a source of mortality for wildlife, especially migratory birds, over the life of the project.

In compliance with **BIO-11k**, the Harper Lake Water Agreement was finalized on April 12, 2005 and signed by the CEC, LUZ, and the Bureau of Land Management (BLM). The Agreement allows BLM to pump up to 75 acre-feet of water per year which is charged under SEGS VIII and IX's base annual production allowance, as specified in the Mojave River adjudication, from a well on BLM land for maintenance of the BLM Harper Lake wetlands. Currently, the project owner pays the annual fees related to the pumping of 75 acre-feet to the Mohave Basin Area Watermaster. This water was provided as an "environmental benefit" as a requirement for approval by the CEC during certification of the project in 1990. The project owner pledged it would provide a reliable source of water for the BLM to use in maintaining the Harper Lake wetlands which are designated by the BLM as an Area of Critical Environmental Concern (ACEC). These wetlands are located at the Harper Dry Lake and historically benefited from irrigation water runoff from past agricultural practices (TN 35662). Per Section III(A)(7) SEGS VIII and SEGS IX are required to charge against their base annual production allowance up to 75 acre-feet of water per year, pumped by the BLM for use in the Harper Lake Watchable

Wildlife Area for the duration of the SEGS VIII and SEGS IX power plants. The duration of the power plants is defined as the condition where either one or both of the SEGS VIII and SEGS IX power plants remain certified by the CEC to operate. Upon termination of the license for SEGS IX, the Harper Lake Water Agreement would be terminated.

Terminating the pumping of 75 acre-feet has the potential to cause impacts to biological resources that rely on the Harper Dry Lake marsh, especially resident wildlife and migratory birds, by eliminating the only source of water for the wetlands (L. Encinas pers comm. BLM source). The BLM has no water rights for the well. Therefore, without the help of a landowner with water rights, BLM has no water for the ACEC (L. Encinas pers comm. BLM source). As part of the SEGS IX Facility Decommissioning Plan, the project owner has committed to continue allowing BLM to pump up to 75-acre feet per year for the maintenance of the Harper Lake wetlands for the duration of the operational life of the future Lockhart Solar PV facility.

The Harper Lake Road Tortoise Monitoring and Fencing Agreement, dated July 11, 1995, signed by CEC, BLM and Desert Tortoise Preserve Committee (DTPC), was entered into to manage for the duration of the facility the project owner's (LUZ Solar Partners (LSP) VIII and LSP IX) lump sum payment for the construction and maintenance of the tortoise-proof fence constructed to address impacts to desert tortoise along Harper Lake Road from the construction and operations of the SEGS VIII and SEGS IX projects. The agreement implemented Biological Condition of Certification 4(f) which set forth the elements of the Harper Lake Road fencing program.

With the decommissioning and termination of SEGS IX, the CEC's oversite of the mitigation fund, managed by the DTPC, will end as well as the project's requirement for ongoing mitigation. Since the fund currently has $80,000 plus interest income, staff, during the decommissioning process, will be working with the DTPC and the County of San Bernardino, and other regulatory entities, to either substitute another regulatory entity to take over the role of the CEC staff to approve expenditure as set forth in the agreement, or to allow the DTPC to use the remaining funds to support its existing desert tortoise conservation efforts with no further agency oversite. Staff is also reaching out to various state and federal agencies and non-profits to determine if there are other options for DTPC to secure additional long-term maintenance and monitoring funds or to partner with for the future maintenance and monitoring efforts needed to ensure the desert tortoise exclusion fencing remains in good repair.

The CEC staff recommends that any final resolution of the Harper Lake Road Fencing Agreement and disposition of the funds contain the following elements consistent with the original purpose of the mitigation to conserve desert tortoise: The funds are provided to DTPC or other similar organization with knowledge as to desert tortoise conservation to support projects that further desert tortoise conservation; in the alternative funds may be provided to programs managed by the California Department of Fish and Wildlife to support desert tortoise conservation. In Lieu of funds being used beyond the termination of the SEGS IX project, funds may also be used until exhausted to make repairs or replace the Harper Lake Road desert tortoise exclusion fencing

during the decommissioning phase. If sufficient funding is not available to maintain the fence long term and the DTPC does not want to take responsibility for the future costs of maintaining the fence and culvert, then staff recommends consideration of the removal of the fence so that is does not become a nuisance and hazard to wildlife. This would be a last option and only if funding is unlikely to be available to maintain the fence. The fence is beneficial to the species, if functioning as it should, and reduces the mortality risk to the desert tortoise along Harper Lake Road.

The decommissioning process would increase the heavy vehicle traffic and use of heavy equipment to enter and exit the facility site. It is expected that truck trips would be approximately 30 per day or 1,814 during the duration of demolition as well as 30 vehicle trips per day by employees [TN 242500 Attachment C]. This increase in traffic increases the risk of the Harper Lake Road fence, or culvert, being damaged by the decommissioning activities. The use of various equipment on site increases the risk of the existing tortoise fencing around the SEGS IX facility being damaged by the decommissioning activities. If damage were to occur to the existing desert tortoise exclusion fence around the site, desert tortoise could enter the SEGS IX site. Additional damage to the Harper Lake Road fence may result in desert tortoise reaching Harper Lake Road. In both cases, increasing the risk of mortality to desert tortoise, including from vehicle strikes. The project owner currently inspects and repairs the existing desert tortoise exclusion fence around the facility site and would continue to do so per **D-BIO-2**. However, the desert tortoise exclusion fence along Harper Lake Road is monitored and maintained by the Desert Tortoise Preserve Committee with funds provided by an endowment. The initial funds placed in the endowment did not consider any potential damages caused by the additional truck trips and worker vehicle trips associated with decommissioning. Per the DTPC, there was at least one reported incident of a project related vehicle colliding with the Harper Lake Road fence during Abengoa Mohave Solar Project operations (J.Lee pers comm). There were additional collisions that caused damage that the drivers did not take responsibility for and were not attributed to a specific project.

The CEC staff proposes a new COC **D-BIO-3** to reduce potential impacts to desert tortoise less that significant. The staff proposed COC would ensure that any additional damage to the desert tortoise exclusion fence, and culvert, along Harper Lake Road that is attributable to the project decommissioning activities is repaired at the cost of the project owner. The project owner would ensure that a licensed contractor approved by the CPM, is contracted to make the repairs to the current state and federal standards and specifications for the protection of the desert tortoise.

CONCLUSIONS AND RECOMMENDATIONS

The CEC staff concludes that the implementation of the proposed Decommissioning Plan would have a less than significant impact on Biological Resources with incorporation of staff's revisions to the proposed decommissioning conditions.

Implementation of conditions **BIO-2**, **BIO- 3**, **BIO-4**, **BIO-7**, **BIO-8**, **BIO-9**, **BIO-12**, and **BIO-13** as well as the newly proposed decommissioning conditions **D-BIO-1** and **D-BIO-2**, as revised by the CEC staff, and **D-BIO-3**, as proposed by the CEC staff, would reduce the severity of any decommissioning-phase impacts on biological resources to a less-than-significant level and ensure consistency with applicable LORS.

REFERENCES

USFWS 2022 – United States Fish and Wildlife Service (USFWS), USFWS Critical Habitat for Threatened & Endangered Species, US Fish and Wildlife Service Environmental Conservation Online System (ECOS). https://www.arcgis.com/home/webmap/viewer.html?url=https://services.arcgis.com/QVENGdaPbd4LUkLV/ArcGIS/rest/services/USFWS_Critical_Habitat/FeatureServer&source=sd. Accessed August 2022.

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
CULTURAL AND TRIBAL CULTURAL RESOURCES

Melissa Mourkas

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX Decommissioning Plan (Plan) (TN 242500) in relation to **Cultural and Tribal Cultural Resources**. The purpose of this analysis is to determine whether decommissioning and demolition of the project would avoid significant impacts on cultural and tribal cultural resources and would be in compliance with applicable laws, ordinances, regulations, and standards (LORS).

EXISTING SETTING

A cultural resources analysis conducted by CEC staff and adopted by the Commission in their Decision during licensing of SEGS IX identified cultural resources prior to construction of the project. These included two prehistoric isolates, one historic isolate, and four historic built environment resources located on the SEGS IX project site. (CEC 1990, pages 237, 244 and 251; Hampson 1988, pages 38–39, Figures 3,5, and 6). No additional cultural resources were discovered during construction of the project (LSA 2022, page 4-13).

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The following state and local LORS related to cultural and tribal cultural resources apply to the decommissioning activities at the SEGS IX site.

Cultural Resources Table 1
Applicable Laws, Ordinances, Regulations, and Standards

LORS	Description	Consistency Determination
California Code of Regulations, Title 14, section 4852	Defines the terms "cultural resource" to include buildings, sites, structures, objects, and historic districts.	**Consistent:** Decommissioning and demolition would not adversely affect cultural resources
Public Resources Code, Section 5000	Establishes the California Register of Historical Resources (CRHR), establishes criteria for eligibility to the CRHR, and defines eligible resources.	**Consistent:** Decommissioning and demolition would not impact any known cultural resources

San Bernardino County General Plan (2007) - Conservation Element	The General Plan establishes a cultural resource sensitivity overlay map. Also, the General Plan establishes goals to identify and protect important cultural resources.	**Consistent:** The facility is located outside of the cultural resource sensitivity layer on the overlay map. Also, decommissioning and demolition would take place on lands that were previously disturbed.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

One of the Cultural Resources conditions of certification in the Decision applicable during construction is applicable to the project during decommissioning and demolition. At the time of certification Paleontological Resources were categorized with Cultural Resources; however, these resources are discussed in the **Geology and Paleontological Resources** section of this decommissioning analysis.

Requirement CUL-9: Prior to the start of ~~**construction on each of the Luz SEGS Unit IX and X projects**~~ **decommissioning activities**, ~~**Luz**~~ **the Project Owner** shall provide the CEC CPM with the following information: the name, telephone number, resume, the specialty area(s) of current certification by the ~~**Society**~~**Register** of Professional Archaeologists (~~**SO**~~**R**PA), and indication of availability for its designated cultural resources specialist. The resume shall include the qualifications of their designated specialist (e.g., someone with a graduate degree in anthropology, history, or cultural resource management, appropriate cultural resource field experience, and current ~~**SO**~~**R**PA certification).

The CEC CPM will review the qualifications of, and must approve in writing, **the Project Owner's** ~~**Luz's**~~ designated cultural resources specialist prior to the start of ~~**construction**~~**on the**~~**Luz**~~ SEGS Unit IX **decommissioning activities** ~~**project**~~. After CEC CPM approval, the cultural resources specialist shall be available to prepare a monitoring and mitigation plan described below. The designated specialist shall also be available to conduct pre- **decommissioning** ~~construction~~ mitigation and provide monitoring and mitigation, as needed, during all **decommissioning** ~~**construction**~~ activities associated with the ~~**Luz**~~ SEGS Unit IX ~~**and X**~~ project~~**s**~~.

Verification: Prior to the start of **SEGS IX decommissioning** ~~**construction on each of the Luz SEGS Unit IX and X projects**~~, ~~**Luz**~~ **the Project Owner** shall submit to the CEC CPM for review and written approval, the name, resume, telephone number, the specialty area(s) of current certification by the ~~**Society**~~ **Register** of Professional Archaeologists (~~**SO**~~**R**PA), and indication of availability for its designated cultural resources specialist.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

The project owner submitted three additional conditions for decommissioning and demolition of the project. The CEC staff has modified **D-CUL-3** to add a provision for a Final Cultural Resources Report.

D-CUL-1: If the earth-disturbing activities associated with decommissioning and demolition extend into soils beyond what was previously disturbed on-site during project construction, a cultural monitor will be available to be on site during the excavation, as outlined in the existing cultural resources conditions.

D-CUL-2: The project owner shall update, if necessary, the cultural resources worker environmental awareness program (WEAP) training (as outlined in Condition CUL/PAL -18 and CUL/PAL-19) and present the WEAP training to all of its personnel and the personnel of its contractors and subcontractors who may be involved with ground clearance or earth moving, to develop an awareness of and sensitivity to potential project impacts on potentially significant cultural resources. This training shall include development of the ability to recognize potentially significant cultural resources.

D-CUL-3: The designated cultural resources specialist shall update the project cultural resources monitoring and mitigation plan to minimize potential impacts to cultural resources for decommissioning and demolition. The plan shall include the following:

a. A provision that the designated cultural resources specialist be on call to inspect any potentially significant cultural resources found during ground clearance and excavation in areas of sensitivity identified in the monitoring and mitigation plan.

b. Specific measures proposed to mitigate impacts to particular types of cultural resources which may be discovered during earth-moving activities.

c. A provision that if potentially significant cultural resources are encountered during demolition activities, work in the immediate vicinity of the find shall be halted until the designated cultural resources specialist can determine the significance and sensitivity of the find. The project designated cultural resources specialist shall act in accordance with the procedures set forth in the monitoring and mitigation plan. The project owner, or designated representative, shall inform the appropriate overseeing agency (California Energy Commission [CEC] or County of San Bernardino [County]) within one working day of the discovery of any potentially significant resources and discuss the specific measure(s) proposed to mitigate potential impacts to the resources. The designated cultural resources specialist, representatives of the project owner, and the appropriate overseeing agency shall meet within seven working days of the notification of the CEC or County, if necessary, to discuss the disposition of any finds and any mitigation measures already implemented or to be implemented.

d. A provision that if human remains are encountered, work in the immediate vicinity shall stop and the County coroner and the jurisdictional agency (CEC or County) shall be notified. Work in the vicinity of the find shall remain stopped

until the coroner has determined if the remains are Native American in origin and any necessary mitigation measures have been implemented. If the remains are determined to be of Native American origin, the Native American Heritage Commission and appropriate Native American representatives shall be notified immediately. Any necessary mitigation measures shall be discussed and agreed upon by the interested parties and approved by the jurisdictional agency.

e. A provision that in the event there are discoveries of cultural resources, they be recorded and evaluated on State of California Department of Parks and Recreation (DPR) 523 form(s) and submitted in a Final Cultural Resources Report to the appropriate jurisdictional agency (CEC or County) and to the appropriate California Historic Resources Information System center, as directed in conditions **CUL-14** and **CUL-15**.

ANALYSIS

The CEC staff reviewed the Plan for potential environmental effects and consistency with applicable LORS. Based on a review of LORS and potential environmental effects, staff determined that decommissioning and demolition of the project would have a less than significant impact to cultural or tribal cultural resources with implementation of the conditions submitted by the project owner in the decommissioning plan and the conditions in the Decision. The project owner will monitor any ground-disturbance in areas that were not already disturbed during construction and that could potentially contain any buried, as-yet unknown cultural or tribal cultural resources. Decommissioning and demolition of the project would not cause any impacts to any CRHR-eligible resources near the project site.

CONCLUSIONS AND RECOMMENDATIONS

The CEC staff concludes that the proposed plan would have a less than significant impact on cultural or tribal cultural resources. The CEC staff reviewed the ethnographic and historic literature to determine whether any environmental justice populations use or reside in the project area. No known hunting and gathering areas would be impacted by the proposed decommissioning and demolition, therefore Native Americans are not considered members of the environmental justice population for this project. The three new decommissioning and demolition related conditions **D-CUL-1**, **D-CUL-2**, and **D-CUL-3**, in combination with the existing Cultural Resources Condition, **Requirement CUL-9**, would be sufficient to reduce impacts from the proposed decommissioning and demolition to a less than significant level to both cultural resources and tribal cultural resources, and ensure compliance with applicable LORS.

REFERENCES

CEC 1990 – California Energy Commission. *Commission Decision Application for Certification for LUZ Engineering Corporation SEGS IX & X Projects (Harper Lake).* March 1989. Sacramento, California. P800-90-002. February 1990.

Hampson 1988 – Hampson, R. Paul. *Cultural Resource Investigation: Solar Energy Generating System (SEGS) VIII-XII, Harper Lake Area, San Bernardino County, California*. December 1, 1988.

LSA 2022 – LSA. *Final Facility Decommissioning Plan and Petition to Terminate License, Solar Energy Generating System (SEGS) IX, 89-AFC-01C, San Bernardino County, California.* TN 242500.Submitted by Luz Solar Partners, Ltd. IX. March 20, 2022.

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
EFFICIENCY AND RELIABILITY

Kenneth Salyphone

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX decommissioning and demolition, as described in the plan (TN242500) in relation to the technical area of **Efficiency and Reliability**. The purpose of this analysis is to determine whether decommissioning and demolition of the project would avoid significant impacts on power plant efficiency and would be in compliance with applicable laws, ordinances, regulations, and standards (LORS).

EXISTING SETTING

The SEGS IX operated as a concentrated solar thermal power facility generating 80 megawatts of electricity. It would undergo decommissioning and demolition activities. Demolition activities would include the dismantling and removal of above-ground structures – parabolic mirrors and supports, steam turbine generators, cooling towers, storage tanks, heaters, condensers, and other ancillary equipment.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

None.

APPLICABLE CONDITIONS OF CERTIFICATIONIN DECISION

None.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

None.

ANALYSIS

The technical area of Efficiency and Reliability is related to plant operation, not plant decommissioning or demolition. There would be no efficiency impacts as the result of decommissioning.

CONCLUSIONS AND RECOMMENDATIONS

Since Efficiency and Reliability is only related to plant operation, there would be no efficiency impacts.

REFERENCES

SEGS IX 2022 – Solar Energy Generation Systems, Unit IX (TN242500). Final Decommissioning Plan. March 2021. Accessed on: August 25, 2022. Available at:

https://efiling.energy.ca.gov/GetDocument.aspx?tn=242500&DocumentContentId=76006

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
GEOLOGY AND PALEONTOLOGICAL RESOURCES

Mike Turner, PG, CEG

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX (89-AFC-01C) decommissioning and demolition, as described in the Final Facility Decommissioning Plan and Petition to Terminate License, prepared by LSA (LSA 2022) in relation to the technical area of **Geology and Paleontological Resources**. The purpose of this analysis is to determine whether decommissioning and demolition of the project would be undertaken in a manner that avoids significant impacts on geology and paleontological resources and would be in compliance with applicable LORS.

EXISTING SETTING

SEGS IX is an existing solar thermal electric facility located on relatively flat alluvial fans along the western edge of the dry lakebed of Harper Lake. Prior to the construction of the project, the land was used for agricultural production but was taken out of production because of the high cost of pumping groundwater for irrigation (CEC 1990).

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

LORS	Description	Consistency Determination
The California Building Code (CBC), 1998 edition, is based upon the Uniform Building Code (UBC), 1997 edition.	The CBC is a series of standards that are used in project investigation, design (Chapters 16 and 18) and construction (including grading and erosion control as found in Appendix Chapter 33). The CBC supplements the UBC's grading and construction ordinances and regulations.	**Consistent:** Basic grading and erosion control of soils would be implemented. Shoring is not anticipated to be needed.

California Public Resources Code, section 5097.5	This law protects paleontological resources and establishes criminal and civil penalties for violations.	**Consistent:** As no paleontological resources were previously identified during project construction and operations and decommissioning and demolition activities will occur within the existing disturbed site, impacts to paleontological resources are not anticipated. If paleontological resources are encountered, the project will comply with the standard procedures for appropriate handling, identification and reporting of findings of paleontological resources.
Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (Society of Vertebrate Paleontology, 2010)	Establishes procedures and standards for assessing and mitigating impacts to paleontological resources.	**Consistent:** As no paleontological resources were previously identified during project construction and operations and decommissioning and demolition activities will occur within the existing disturbed site, impacts to paleontological resources are not anticipated. If paleontological resources are encountered, the project will comply with the standard procedures for assessing and mitigating impacts to paleontological resources.

County of San Bernardino Development Code Section 82.20.030 (2009 edition)	This section of the Development Code sets forth the requirements of paleontological resource mitigation programs for projects in the County. These requirements include a field survey prior to grading, monitoring during grading, appropriate handling and identification of specimens, and reporting of findings.	**Consistent:** As no paleontological resources were previously identified during project construction and operations and decommissioning and demolition activities will occur within the existing disturbed site, impacts to paleontological resources are not anticipated. If paleontological resources are encountered, the project will comply with the standard procedures for assessing and mitigating impacts to paleontological resources.
County of San Bernardino General Plan, Section V – Conservation Element	This section of the General Plan outlines several programs for protecting paleontological resources during development, including requirements for surveys, monitoring, recovery, curation, and reporting of paleontological resources.	**Consistent:** As no paleontological resources were previously identified during project construction and operations and decommissioning and demolition activities will occur within the existing disturbed site, impacts to paleontological resources are not anticipated. If paleontological resources are encountered, the project will comply with the standard procedures for assessing and mitigating impacts to paleontological resources.

APPLICABLE CONDITIONS OF CERTIFICATIONIN DECISION

Decommissioning activities would take place within the existing project footprint. No paleontological resources were identified within the project footprint during construction of the existing SEGS IX project and the decommissioning activities would take place entirely on site within the previously disturbed project footprint. Some decommissioning activities might involve soil excavation. If the excavation depth for decommissioning

and demolition activities extends into soils beyond what was previously disturbed during construction of the original project, applicable geological and paleontological resources COCs would be implemented.

At the time of certification, paleontological resources were categorized with cultural resources and were discussed in the **Cultural and Paleontological Resources** section of the Decision. Four paleontological COCs in the Decision that were applicable during construction would be applicable to the project during decommissioning and demolition. The applicable COCs are listed below.

PAL-1: Prior to the start of construction (defined as any construction-related vegetation clearance, ground disturbance and preparation, and site excavation activities) [Luz] shall provide the CEC CPM with the following information: the name, telephone number, resume, and indication of availability for its designated palaeontologic resources specialist.

The resumes shall include the qualifications of their designated specialist (e.g., someone with a graduate degree in geology or paleontology and paleontological field experience).

The CEC CPM will review the qualifications of, and must approve in writing, [Luz's] designated palaeontologic resources specialist prior to the start of construction. After CEC CPM approval, the palaeontologic specialist shall be available to prepare a monitoring and mitigation plan described below. The designated specialist shall also be available to conduct pre-construction mitigation and provide monitoring and mitigation, as needed, during all construction activities associated with the project.

Verification: Prior to the start of construction on each of the SEGS IX project, Luz shall submit to the CEC CPM for review and written approval, the name, resume, telephone number, and indication of availability for its designated palaeontologic resources specialist.

PAL-2: Prior to the start of construction, the designated palaeontologic resources specialist shall prepare and implement a monitoring and mitigation plan to minimize potential impacts to palaeontologic resources. The plan shall be submitted to the CEC CPM for review and written approval prior to the start of construction.

The plan shall include, but not be limited to, the following elements:

a. A provision that if, during monitoring of construction activities, the designated palaeontologic specialist determines the likelihood of encountering fossil resources is slight, monitoring can be discontinued in that locality;

b. A discussion of specific measures proposed to mitigate impacts to particular types of palaeontologic resources which may be discovered during earth moving activities;

c. A provision that construction will not begin until the designated palaeontologic resources specialist has completed the construction management/resource specialist sign-off procedure, certifying that all necessary mitigation of impacts to

known palaeontologic resources has been completed in those areas which will be directly affected by the construction and operation of each SEGS project;

d. A provision that the designated paleontological resource specialist shall have the certified authority to halt or redirect construction at any time necessary to protect known or previously unknown paleontological resources and their locational context. The halting or redirection of construction shall remain in effect until the designated paleontological resources specialist has met with [Luz's] construction managers, determined how the resources will be protected when construction resumes, and has completed the construction management/resource specialist sign-off procedures;

e. A provision that if fossil resources are encountered during construction activities, work in the immediate vicinity of the find shall be halted until the designated palaeontologic specialist can determine the significance and sensitivity of the find. The designated palaeontologic specialist shall act in accordance with the procedures set forth in the monitoring and mitigation plan; [Luz], or its designated representative, shall inform the CEC CPM within one working day of the discovery of any potentially significant resources and discuss the specific measure(s) proposed to mitigate potential impacts to the resources. The designated palaeontologic resources specialist, representatives of [Luz], and the CEC CPM shall meet within five working days of the notification of the CEC CPM, if necessary, to discuss the disposition of any finds and any mitigation measures already implemented or to be implemented. All necessary and required data recovery and mitigation shall be completed within ten days after discovery of the previously unknown paleontological resources;

f. A provision that all vertebrate fossil remains will be collected and any invertebrate fossil remains will be sampled. All fossil materials found shall be mapped, prepared, identified, and removed for analysis and duration in the retrievable storage collection at the San Bernardino County Museum in Redlands, California;

g. A provision that the CEC CPM and staff shall have unrestricted and unannounced access to the [Luz] SEGS Unit IX site, at any time during preconstruction and construction activities, to observe palaeontologic resources monitoring and data recovery activities;

h. A provision that the CEC CPM and staff shall have unrestricted access to and open communication with the designated palaeontologic resources specialist(s) any time;

i. A provision ensuring completion of the necessary analysis of palaeontologic resource materials found during surveys, data recovery, and mitigation activities for the SEGS Unit IX project;

j. A provision ensuring the preparation of a final palaeontologic resources report;

k. A provision that original and/or original-quality copies of the final paleontological resources report will be filed with the appropriate museums, paleontological information repository(ies), and CEC CPM; and,

l. A provision for curation of all paleontological resource materials collected during survey, data recovery, and mitigation for the SEGS project.

Verification: Prior to the start of construction on Luz SEGS Unit IX, Luz shall submit a monitoring and mitigation plan for paleontological resources to the CEC CPM for review and written approval.

PAL-4: [Luz] will have the designated palaeontologic specialist available to monitor construction activities at the SEGS Unit IX site or in the SEGS Unit IX project area, on an as-needed basis, as defined in the CEC-approved monitoring and mitigation Plan for paleontological resources.

Verification: After CEC approval of the designated specialist, the Luz shall maintain copies of its contract(s) with the designated palaeontologic resources specialist(s) in its compliance files.

PAL-18/PAL-19: [Luz] shall prepare and present palaeontologic and cultural resources worker environmental awareness program (WEAP) training to all its personnel and the personnel of its contractors or subcontractors who may be involved with ground clearance or earth moving, to develop an awareness of and sensitivity to potential project impacts on potentially significant cultural and paleontological resources. This training shall include development of the ability to recognize potentially significant cultural and palaeontologic resources.

Verification: Prior to the start of construction on Luz SEGS Unit IX, Luz shall submit a copy of the written materials to be used in its training program to the CEC CPM and staff. Prior to the start of construction Luz shall present its cultural and palaeontologic resources training program to the CEC CPM and staff and receive approval of the program from the CEC CPM.

Each month throughout the pre-construction and construction period, Luz shall submit to the CEC CPM a list of persons newly employed at the Luz SEGS IX project during the previous month and a statement verifying that all the new employees have signed paleontological and cultural resource training affidavits on file and available for periodic audit by the CEC CPM.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

[Luz] proposes three additional COCs for decommissioning and demolition of the project. Verifications have been incorporated from the existing paleontological COCs above. They are:

D-PAL-1: [Luz] will have a paleontological specialist available on an as-needed basis, if the excavation depth for decommissioning and demolition activities extends into soils

beyond what was previously disturbed during construction of the original project as outlined in the existing COCs.

Verification: Prior to the start of decommissioning activities of the SEGS IX project, Luz shall submit to the CEC CPM for review and written approval, the name, resume, telephone number, and indication of availability for its designated palaeontologic resources specialist.

D-PAL-2: [Luz] shall update, if necessary, the paleontological resources worker WEAP training (as outlined in COC PAL-18 and PAL-19) and present the WEAP training to all of its personnel and the personnel of its contractors and subcontractors who may be involved with ground clearance or earth moving, to develop an awareness of and sensitivity to potential Project impacts on potentially significant paleontological resources. This training shall include development of the ability to recognize potentially significant paleontological resources.

Verification: Prior to the start of decommissioning activities of the SEGS IX, Luz shall present its cultural and palaeontologic resources WAEP training materials to the CEC CPM and staff and receive approval of the program from the CEC CPM.

Each month throughout the decommissioning activities of the SEGS I, Luz shall submit to the CEC CPM a list of persons newly employed at the Luz SEGS IX project during the previous month and a statement verifying that all the new employees have signed paleontological and cultural resource training affidavits on file and available for periodic audit by the CEC CPM.

D-PAL-3: The designated paleontologist shall update the project monitoring and mitigation plan (as outlined in COC PAL-2) to minimize potential impacts to palaeontologic resources for decommissioning and demolition. The plan shall include the following elements:

a. A provision that if, during monitoring of demolition activities, the designated paleontologist determines the likelihood of encountering fossil resources is slight, monitoring can be halted in that locality.

b. A provision that if fossil resources are encountered during demolition activities, work in the immediate vicinity of the find shall be halted until the designated paleontologist can determine the significance and sensitivity of the find. The designated paleontologist shall act in accordance with the procedures set forth in the monitoring and mitigation plan which has been approved by the overseeing agency (CEC or County of San Bernardino) prior to the start of construction.

c. [Luz], or its designated representative, shall inform the overseeing agency within one working day of the discovery of any potentially significant resources and discuss the specific measure(s) proposed to mitigate potential impacts to the resources.

d. The designated paleontologist, representatives of the [Luz], and the overseeing agency shall meet within seven working days of the notification, if necessary, to

discuss the disposition of any finds and any mitigation measures already implemented or to be implemented.

e. A provision that all vertebrate fossil remains will be collected and any invertebrate fossil remains will be sampled. All fossil materials found shall be mapped, prepared, identified, and removed for analysis and duration in the retrievable storage collection at the San Bernardino County Museum, California.

Verification: Prior to the start of the decommissioning activities of the Luz SEGS Unit IX, Luz shall submit a monitoring and mitigation plan for paleontological resources to the CEC CPM for review and written approval.

ANALYSIS

Based on the final decommissioning plan provided by [Luz] (LSA 2022), disturbance of soil at the site would be limited to areas immediately surrounding elements of the facility that would be removed, such as support structures and connections to buried utilities. It is unlikely that this disturbance would extend beyond the depth of soil that was disturbed during project construction. However, it is possible that excavations could extend to a depth where undisturbed Pleistocene-age sediments are encountered. In the event excavation activities penetrate undisturbed material, the potential impacts to such resources can be effectively mitigated through application of the existing Cultural and Paleontological Resources COCs, **PAL-1, PAL-2, PAL-4, PAL-18, and PAL-19**, in combination with the newly proposed decommissioning conditions **D-PAL-1** through **D-PAL-3**. Therefore, impacts to paleontological resources are expected to be less than significant. The proposed decommissioning of the project would not result in any necessary changes or deletions to the COCs for engineering geology or paleontological resources.

CONCLUSIONS AND RECOMMENDATIONS

The CEC staff concludes the proposed decommissioning of the facility would not result in significant environmental impacts in terms of geologic resources, palaeontologic resources, or geologic hazards, provided Luz complies with existing Cultural Resources COCs **PAL-1**, **PAL-2**, **PAL-4**, **PAL-18**, and **PAL-19**, and decommissioning conditions **D-PAL-1 through D-PAL-3**. The proposed decommissioning would comply with all the LORS and would not require any change to the COCs related to geology or geologic hazards adopted by the CEC in its Decision and any subsequent amendments for SEGS IX (CEC 1990).

REFERENCES

CEC 1990 – California Energy Commission, Commission Decision, Application for Certification for Luz SEGS IX & X Projects (Harper Lake), February 1990, Docket No. 89-AFC-01C.

LSA 2022 – Final Facility Decommissioning Plan and Petition to Terminate License, Solar Energy Generating System (SEGS) IX (89-AFC-01C), San Bernardino County, California, March 2022, Docket Number 89-AFC-01C, TN: 242500.

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
HAZARDOUS MATERIALS MANAGEMENT

Brett Fooks

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX decommissioning and demolition, as described in the decommissioning plan (TN 242500) in relation to the technical area of **Hazardous Materials Management**. The purpose of this analysis is to determine whether decommissioning and demolition of the project would avoid significant hazardous materials management impacts to the environment and would be in compliance with applicable LORS.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

Hazardous Material Management Table 1 outlines the federal, state and local laws and policies that apply to the protection of public health and hazardous materials management for the SEGS IX decommissioning. The CEC staff's analysis examines the project's compliance with these requirements.

Hazardous Material Management Table 1
LORS Applicable to Hazardous Materials Management

Applicable LORS	Description	Consistency Determination
Federal		
The Superfund Amendments and Reauthorization Act of 1986 (42 USC §9601 et seq.)	Contains the Emergency Planning and Community Right to Know Act (also known as SARA Title III).	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
The Clean Air Act (CAA) of 1990 (42 USC 7401 et seq. as amended)	Established a nationwide emergency planning and response program and imposed reporting requirements for businesses that store, handle, or produce significant quantities of extremely hazardous materials.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.

The CAA section on risk management plans (42 USC §112(r))	Requires states to implement a comprehensive system informing local agencies and the public when a significant quantity of such materials is stored or handled at a facility. The requirements of both SARA Title III and the CAA are reflected in the California Health and Safety Code, section 25531, et seq.	
49 CFR 172.800	The U.S. Department of Transportation (DOT) requirement that suppliers of hazardous materials prepare and implement security plans.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
49 CFR Part 1572, Subparts A and B	Requires suppliers of hazardous materials to ensure that all their hazardous materials drivers are in compliance with personnel background security checks.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
The Clean Water Act (CWA) (40 CFR 112)	Aims to prevent the discharge or threat of discharge of oil into navigable waters or adjoining shorelines. Requires a written spill prevention, control, and countermeasures (SPCC) plan to be prepared for facilities that store oil that could leak into navigable waters.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
State		
Title 8, California Code of Regulations, section 5189	Requires facility owners to develop and implement effective safety management plans that ensure that large quantities of hazardous materials are handled safely. While such requirements primarily provide for the protection of workers, they also indirectly improve public safety and are coordinated with the Risk Management Plan (RMP) process.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.

California Health and Safety Code, section 25531 to 25543.4	The California Accidental Release Program (CalARP) requires the preparation of a Risk Management Plan (RMP) and off-site consequence analysis (OCA) and submittal to the local Certified Unified Program Agency for approval.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
California Health and Safety Code, section 41700	Requires that "No person shall discharge from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause injury or damage to business or property."	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
Title 19, California Code of Regulations, Division 2, Chapter 4.5, Articles 1-11	Sets forth the list of regulated substances and thresholds, the requirements for owners and operators of stationary sources concerning the prevention of accidental releases, the accidental release prevention programs approved under Section 112 of the federal Clean Air Act (CAA) Amendments of 1990 and mandated under the CalARP Program, and how the CalARP Program relates to the state's Unified Program.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
Local (or locally enforced)		

San Bernardino County Fire Department's Hazardous Materials Division	The Certified Unified Program Authority (CUPA) with responsibility to review Risk Management Plans and Hazardous Materials Business Plans is the San Bernardino County Fire Department. The CUPA requires a Consolidated Hazardous Materials Permit. The County has compliance codes that correspond with California Health and Safety Code Sections 25185, 25508 and 25280 that require CUPAs to inspect facilities that handle hazardous materials and/or generate hazardous wastes.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.

APPLICABLE CONDITIONS OF CERTIFICATIONIN DECISION

The CEC staff has reviewed the existing COCs for the project in the Decision and there are none that would apply during decommissioning and demolition.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

The CEC staff has reviewed the SEGS IX Final Decommissioning Plan. The project owner has proposed one additional COC to be implemented during decommissioning and demolition, identified as:

D-HAZ-1: The project owner shall update their Hazardous Materials Business Plan (HMBP) for decommissioning, as applicable, to reflect hazardous materials not previously used at the site.

Verification: The project owner shall submit a copy of the revised HMBP in the MCR, as needed, when the HMBP is updated.

ANALYSIS

The CEC staff reviewed the decommissioning plan identifying all decommissioning activities which include handling, recycling, and disposal of hazardous materials once the facility ceases operation. The hazardous materials that would be handled during decommissioning include heat transfer fluid (HTF), lead acid batteries, diesel fuel, hydraulic oil, lubricating oil, and mineral oil. The SEGS IX decommissioning plan proposed one condition, **D-HAZ-1**, which would have the project owner update the HMBP as needed to reflect the new hazardous materials used during decommissioning. During decommissioning, the SPCC plan would be updated to cover spill prevention and countermeasures for handling of these materials. Prior to removing the equipment, all hazardous materials would be drained or transferred. The transfer of diesel fuel, HTF,

hydraulic fluids and oils would be directly from the tanks or storage containers to a tanker truck. After removal, all tanks and storage containers would be rinsed and the remaining water containing low concentrations of contaminants would be transferred into a tanker truck for disposal. The planned use, handling, disposal, and transportation of the hazardous materials from the facility would continue to be in compliance with applicable LORS.

During the demolition of the SEGS IX project, there are several hazardous materials that would be used in the decommissioning, including gasoline, diesel fuel, oil, lubricants, welding gases, and small quantities of solvents. No extremely hazardous or regulated hazardous materials would be used on site specifically for demolition. None of these materials pose a significant potential for offsite impacts as a result of the quantities on site, their relative low toxicity, their physical state, and/or their environmental mobility. Any impact of spills or other releases of these materials would be limited to the site because of the small quantities involved, and/or the temporary containment berms used by contractors. Petroleum hydrocarbon-based motor fuels, mineral oil, lube oil, and diesel fuels represent limited off-site hazards even in larger quantities.

CONCLUSIONS AND RECOMMENDATIONS

The CEC staff recommends adoption of the decommissioning and demolition plan and concludes that with the implementation of condition **D-HAZ-1**, the hazardous material impacts to the environment would be less than significant and decommissioning would comply with applicable LORS.

REFERENCES

CEC 1990 – California Energy Commission – SEGS IX Harper Dry Lake Final Decision February 14, 1990

SEGS 2022 – Solar Energy Generating Systems IX. (TN 242500). SEGS IX (89-AFC-01C) Facility Decommissioning Plan and Petition to Terminate License, dated March30, 2022. Available online at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=89-AFC-01C

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination

LAND USE

Jeanine Hinde and Steve Kerr

INTRODUCTION

In this section, the CEC staff discuss the SEGS IX Facility Decommissioning Plan (SEGS IX 2022) relating to the topic of **Land Use**. The purpose of this analysis is to determine whether decommissioning of the project would avoid significant impacts on land use and comply with applicable LORS.

EXISTING SETTING

The SEGS IX solar thermal power plant is located in western San Bernardino County in the Mojave Desert. The *County of San Bernardino 2007 General Plan* shows that the site has the land use designation of RL, Rural Living. The RL designation applies to areas "with existing land uses that include limited agriculture; mining and quarrying; energy production operations; public and private recreation areas; rural residences and vacation cabins; and watershed, wildlife, and open space uses" (County of San Bernardino 2007). The Mojave Solar Project is located immediately southeast of SEGS IX. The site is otherwise within an extensive, open space area several miles northwest of Barstow.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

Decommissioning activities would not conflict with land use plans or policies. The project owner would obtain a demolition permit from the San Bernardino County (County) Building and Safety Division to ensure compliance with County regulatory requirements for the partial or complete removal of a permitted building or structure. (See the subsection below, "Additional Proposed Measures.")

APPLICABLE CONDITIONS OF CERTIFICATIONIN DECISION

No adopted COCs pertaining to Land Use apply to the decommissioning activities at the SEGS IX site.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

The project owner obtained a conditional use permit (CUP) from the county that includes decommissioning and demolition of the existing SEGS IX facility and redevelopment of the site for a photovoltaic and battery energy storage system. The county's conditions of approval for the CUP include a requirement for a demolition permit for any buildings or structures to be demolished. The project owner proposes the following measure to obtain a demolition permit according to county requirements. Staff has added measures for verification using **bold/underline**:

D-LU-1: The Project Owner ~~will~~ **shall** obtain a Demolition Permit from the County of San Bernardino prior to the start of demolition activities.

Verification: The project owner shall submit a copy of the demolition permit to the CEC CPM within two business days of issuance from the County of San Bernardino and prior to the start of demolition activities.

ANALYSIS

The project owner will obtain a demolition permit from the county's Land Use Services Department, Building and Safety Division. With implementation of the project owner's proposed condition, **D-LU-1**, the project would comply with applicable land use LORS.

Decommissioning and demolition of SEGS IX would include dismantling and removing power block equipment, cooling towers, parabolic mirrors and associated apparatus, and some of the support and miscellaneous buildings. Various hazardous materials would be removed from the site. Implementation of adopted COCs and proposed decommissioning specific COCs would ensure that environmental impacts relating in part to land use would be avoided or reduced to less than significant. (The other sections of this document discuss all environmental issues, including potential air quality impacts from mechanized equipment; hazardous materials handling and transport; management, removal, and disposal of waste materials; impacts on transportation routes; and noise and vibration effects.)

CONCLUSIONS AND RECOMMENDATIONS

No adopted COCs pertaining to Land Use apply to the decommissioning and demolition activities at the SEGS IX site. With implementation of the project owner's proposed condition, **D-LU-1**, as amended by the CEC staff, the project would comply with applicable land use LORS. Decommissioning would not physically divide an established community or cause a significant environmental impact due to a conflict with LORS adopted for the purpose of avoiding or mitigating an environmental effect. Additionally, the activities would not result in the conversion of farmland or forest land.

REFERENCES

County of San Bernardino 2007 – *County of San Bernardino 2007 General Plan*. Section II – Land Use. Pages II-8 and II-9. Prepared by URS Corporation. Santa Ana, CA. Adopted March 13, 2007; Effective April 12, 2007; Amended April 24, 2014. Available online at: http://cms.sbcounty.gov/lus/Planning/GeneralPlan.aspx.

SEGS IX 2022SEGS IX Facility Decommissioning Plan and Petition to Terminate License, dated March 2022. (TN 242500). Available online at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=88-AFC-01C

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination

NOISE

Kenneth Salyphone

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX decommissioning and demolition, as described in the decommissioning plan (TN242500) in relation to the technical area of **Noise**. The purpose of this analysis is to determine whether decommissioning and demolition of the project would avoid significant noise impacts and would be in compliance with applicable LORS.

EXISTING SETTING

SEGS IX operated as a concentrated solar thermal power facility generating 80 megawatts of electricity. It would undergo decommissioning and demolition activities. Demolition activities would include the dismantling and removal of above-ground structures – parabolic mirrors and its supports, steam turbine generators, cooling towers, storage tanks, heaters, condensers, and other ancillary equipment.

SEGS IX shares a parcel totaling 1,073 acres located within a Rural Living Land use district. The nearest residences are located 1.6 miles and nearest business/off-site worksite is 10.2 miles from the project. A private airport is located approximately 14 miles to the south.

There are no sensitive noise receptors within 1 mile of the project area.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

Noise Table 1 below identifies the noise LORS related to SEGS IX.

Noise Table 1
Laws, Ordinances, Regulations, and Standards

Applicable LORS	Description	Consistency Determination
Federal		
Occupational Safety & Health Act (OSHA), Title 29, Code of Federal Regulations, § 1910.95. Title 29, USC §651 et seq.	Regulated the worker noise exposure to 90 decibels (dBA) over an 8-hour work shift. Areas above 85 dBA need to be posted as high noise level area and hearing protection will be required.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.

State		
California Occupational Safety & Health Act (Cal-OSHA): Title 8, California Code of Regulations, § 5095 et seq.	Establishes Cal-OSHA employee noise exposure limits. These standards are equivalent to the Federal OSHA standards. Worker noise exposure is limited to 90 dBA over an 8-hour work shift. Areas where worker noise exposure exceeds 85 dBA must be posted as a noise hazard zone and a hearing conservation program is required.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
Local		
County of San Bernardino (SB) County General Plan (2007) Noise Element; SB County Development Code (Amended 2019).	Defines the land noise levels that are normally acceptable in residential areas as between 45 and 55 dBA.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.

FEDERAL

Under the Occupational Safety and Health Act of 1970, the Department of Labor, Occupational Safety and Health Administration (OSHA) adopted regulations Title 29 § 1910.95, designed to protect workers against the effects of occupational noise exposure.

These regulations list permissible noise exposure levels as a function of the amount of time during which workers are exposed to those noise levels. The regulations further specify a hearing protection program that involves monitoring the noise to which workers are exposed, assuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any hearing degradation.

STATE

The California Occupational Safety and Health Administration (Cal-OSHA) has adopted occupational noise exposure regulations (California Code of Regulations Title 8 § 5095) that set employee noise exposure limits. These standards are equivalent to federal OSHA standards (see **Noise Table 1**).

LOCAL

County of San Bernardino

Project decommissioning and demolition noise within the county of San Bernardino would be regulated by the San Bernardino County General Plan and the County Development Code.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

None of the existing Noise COCs would apply during decommissioning.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

The following are additional proposed measures that would be implemented during the decommissioning and demolition activities to ensure compliance with applicable LORS.

D-NOISE-1: The project will comply with occupancy noise safety requirements and provide hearing protection to workers during demolition activities.

Verification: Prior to the start of demolition activities, the project owner shall notify the CPM, in the Monthly Compliance report (MCR), that these actions will be implemented.

D-NOISE-2: All equipment used for decommissioning and demolition shall be muffled in accordance with manufacturers' specifications.

Verification: Prior to the start of demolition activities, the project owner shall notify the CPM, in the MCR, that these actions will be implemented when needed.

D-NOISE-3: Decommissioning activities will be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday, in accordance with the County of San Bernardino Development Code standards.

Verification: Prior to the start of demolition activities, the project owner shall notify the CPM, in the MCR, that this requirement will be implemented.

ANALYSIS

The decommissioning and demolition activities would temporarily elevate the ambient noise levels in the surrounding areas. Decommissioning and demolition activities would be limited to the hours of 7 a.m. to 7 p.m., Monday through Saturday, in accordance with the County of San Bernardino Development Code. The project would also comply with occupational noise safety requirements and provide hearing protection to workers during demolition activities.

Decommissioning and demolition equipment would be muffled in accordance with manufacturers' specifications and given that the nearest sensitive receptor is over 1 mile from the project site, the demolition activities would not exceed the acceptable noise levels for residential areas.

CONCLUSIONS AND RECOMMENDATIONS

With the implementation of **D-NOISE-1, D-NOISE-2, and D-NOISE-3** the project decommissioning and demolition activities would comply with the applicable LORS and create less-than-significant noise impacts.

REFERENCES

SEGS IX 2022 – Solar Energy Generation Systems, Unit IX (TN242500). Final Decommissioning Plan. March 2022. Accessed on: August 25, 2022. Available at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=242500&DocumentContentId=76006

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
PUBLIC HEALTH

Tao Jiang

INTRODUCTION

In this section, the CEC staff discusses the proposed SEGS IX decommissioning and demolition, as described in the Plan (TN 242500) in relation to the technical area of **Public Health**. The purpose of this analysis is to determine whether decommissioning and demolition of the project in accordance with the Final Decommissioning Plan would avoid significant public health impacts and would be in compliance with applicable LORS.

EXISTING SETTING

SEGS IX is located near Harper Lake in unincorporated San Bernardino County. San Bernardino County is part of the Mojave Desert Air Basin (MDAB) and considered nonattainment for state and federal ambient air quality standards of ozone and particulate matter less than ten microns (PM10). The project site is very arid, characterized with low annual rainfall, hot summers, and moderate winters. The surrounding area has a low population density. However, maps indicate there are structures near the site that could be residences or worksites.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The CEC staff reviewed the SEGS IX Final Decommissioning Plan to determine compliance with the listed LORS and practices in **Public Health Table 1**. Staff notes additional LORS related to public health are included in the **Air Quality**, **Hazardous Materials Management**, **Worker Safety and Fire Protection**, and **Waste** Management sections of this staff analysis.

Public Health Table 1
Laws, Ordinances, Regulations, and Standards

Applicable LORS	Description	Consistency Determination
Federal		
Title 29 U.S. Code (USC) section 651 et seq (Occupational Safety and Health Act of 1970)	This act mandates safety requirements in the workplace.	**Consistent:** The project owner would be required to comply with **Worker Safety and Fire Protection** conditions of certification. These conditions are consistent with OSHA requirements.

Title 40, Code of Federal Regulations, part 50 (National Primary and Secondary Ambient Air Quality Standards)	Part 50 establishes the National Ambient Air Quality Standards (NAAQS). NAAQS define levels of air quality that are necessary to protect public health.	**Consistent:** The **Public Health** and **Air Quality** conditions of certification would require the project owner to follow strategies to reduce emissions from decommissioning and demolition activities. With the adherence to these emission control strategies, the decommissioning and demolition activities are not expected to significantly impact the MDAB NAAQS attainment status.
Title 40, Code of Federal Regulations, part 51 (Requirements for Preparation Adoption and Submittal of Implementation Plans)	Requires emission reporting and control strategies for the attainment and maintenance of national standards.	**Consistent:** The project owner would be required to comply with all **Public Health** and **Air Quality** LORS including the Mojave Desert Air Quality Management District (MDAQMD) rules and regulations. The required emission control strategies for decommissioning and demolition are consistent with the Mojave Desert Air Quality Management District requirements for attainment and maintenance.

Title 40, Code of Federal Regulations, part 61 (National Emission Standards for Hazardous Air Pollutants)	Part 61 establishes national emission standards for hazardous air pollutants. Subpart M establishes requirements for demolition and renovation activities.	**Consistent:** MDAQMD Rule 1000 incorporates Subpart M by reference. Proposed condition of certification **D-PH-1** would require the project owner to comply with the MDAQMD asbestos program. Proposed condition of certification **D-PH-1** would require the project owner to comply with the MDAQMD asbestos program. The MDAQMD asbestos program is consistent with Subpart M requirements.
State		
Health & Safety Code, sections 40910-40930 (District Plans to Attain State Ambient Air Quality Standards)	State Ambient Air Quality Standards (CAAQS) should be achieved and maintained.	**Consistent:** The **Public Health** and **Air Quality** conditions of certification would require the project owner to follow strategies to reduce emissions from decommissioning and demolition activities. With the adherence to these emission control strategies, the decommissioning and demolition activities are not expected to significantly impact the MDAB CAAQS attainment status.
Health & Safety Code, sections 41700-41701 (General Limitations)	Establishes nuisance and visible emission requirements. Prohibits discharge of such quantities of air contaminants that cause injury, detriment, nuisance, or annoyance.	**Consistent:** The **Public Health** and **Air Quality** conditions of certification would require measures that would reduce the potential for nuisance or visible emissions from decommissioning and demolition activities.

Title 13, California Code of Regulations, section 2449 (General Requirements for In-Use Off-Road Diesel Fueled Fleets)	Imposes idling limits of five minutes, requires a plan for emission reductions for medium to large fleets, requires all vehicle with engines greater than 25 horsepower to be reported to the California Air Resources Board (CARB) and labeled, and restricts adding older vehicles into fleets.	**Consistent:** The **Public Health** and **Air Quality** conditions of certification would require strategies to reduce emissions from ecommissioning and demolition activities. With the adherence to these emission control strategies, the decommissioning and demolition activities are not expected to significantly impact the MDAB CAAQS attainment status.
Local		
County of San Bernardino Development Code	Implements the goals and policies of the General Plan by regulating land uses within the unincorporated areas of the County. Includes provisions for the reduction of diesel emissions and fugitive dust control.	**Consistent:** The project owner would be required to comply with the proposed conditions of certification. The proposed conditions of certification are consistent with the County of San Bernardino Development Code requirements.
Mojave Desert Air Quality Management District Regulation IV – Prohibitions Rule 403 (Fugitive Dust)	Establishes requirements to minimize fugitive dust. Requires every reasonable precaution to minimize fugitive dust emissions from activities and prohibits visible dust beyond the emission source's property line.	**Consistent:** The **Public Health** and **Air Quality** conditions of certification would require the project owner to follow strategies to minimize fugitive dust consistent with the MDAQMD requirements.
Mojave Desert Air Quality Management District Regulation IV – Prohibitions Rule 403.2 (Fugitive Dust Control for the Mojave Desert Planning Area)	Establishes requirements for demolition activity to implement specific control measures to ensure the national ambient air quality standards for PM10 will not be exceeded.	**Consistent:** The **Public Health** and **Air Quality** conditions of certification would require the project owner to follow strategies to minimize fugitive dust consistent with the MDAQMD requirements.

Mojave Desert Air Quality Management District Regulation X– Emission Standards for Additional Specific Air Contaminants Rule 1000 (National Emission Standards for Hazardous Air Pollutants)	Incorporates by reference all the applicable provisions regarding National Emission Standards for Hazardous Air Pollutants in Title 40, Code of Federal Regulations, part 61.	**Consistent:** MDAQMD Rule 1000 incorporates Subpart M by reference. Proposed condition of certification **D-PH-1** would require the project owner to comply with the MDAQMD asbestos program. Proposed condition of certification **D-PH-1** would require the project owner to comply with the MDAQMD asbestos program. The MDAQMD asbestos program is consistent with Subpart M requirements.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

Decommissioning activities would take place within the existing project footprint. The existing Public Health COCs in the Decision would not be applicable to the decommissioning and demolition activities.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

The project owner is proposing additional conditions relevant to public health included in the **Air Quality**, **Hazardous Materials Management**, **Worker Safety and Fire Protection**, and **Waste Management** sections of this staff analysis, to be implemented during decommissioning and demolition. The project owner also proposes following COCs exclusive to **Public Health**. Staff concurs with project owner's proposal and recommends for adoption by the CEC.

D-PH-1: The project owner shall ensure all required asbestos related notification and removal testing is performed prior to demolition. The project owner shall comply with all Mojave Desert Air Quality Management District (MDAQMD) Rule 1000 asbestos requirements. The project owner shall include a statement of compliance with all asbestos related activities in the monthly compliance report.

Verification: The project owner shall submit the monthly compliance report (MCR), including the statement of compliance, to the Compliance Program Manager (CPM) within 30 days of the end of each month.

D-PH-2: The project owner shall comply with the County of San Bernardino Development Code control measures for diesel exhaust emissions. The project owner shall include a statement of compliance in the monthly compliance report.

Verification: The project owner shall submit the MCR to the CPM within 30 days of the end of each month.

ANALYSIS

The project owner is proposing to decommission SEGS IX to make way for a new PV solar facility (not under the jurisdiction of the CEC). Decommissioning activities are divided into five stages and is anticipated to take nine months.

In addition to the analysis in this **Public Health** section that focuses on potential effects on the public from emissions of toxic air contaminants (TACs), the CEC staff addresses the potential impacts of regulated, or criteria, air pollutants in the **Air Quality** section and assesses the health impacts on public and workers from accidental releases of hazardous materials in the **Hazardous Materials Management and Worker Safety and Fire Protection** sections. The health and nuisance effects from electric and magnetic fields are discussed in the **Transmission Line Safety and Nuisance** section. Pollutants released from the project's wastewater streams are discussed in the **Soil and Water Resources** section. Releases in the form of hazardous and nonhazardous wastes are described in the **Waste Management** section.

Asbestos

Asbestos containing material can become a health hazard when disturbed. Asbestos is classified as a known carcinogen and may also increase the risk of other lung diseases. Health risks from asbestos exposure increases with heavier exposure and longer exposure periods. However, asbestos related diseases have also occurred with brief exposures.

Asbestos containing structures and material are also not currently known to be present on the site. However, there are several LORS pertaining to the handling and disposal of asbestos containing materials since it can become an airborne hazard. The project owner stated in the testing would be performed prior to the start of decommissioning.

The federal Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP), as specified under 40 CFR 61, Subpart M, applies to asbestos removal and demolitions and is enforced locally by the Mojave Desert Air Quality Management District (MDAQMD). MDAQMD Rule 1000 adopts the federal asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements by reference. The project owner is responsible for submitting a notification of demolition/renovation or an asbestos checklist indicating a demolition/renovation form is not required to the MDAQMD. Staff recommends new Public Health COC **D-PH-1** to incorporate the requirements of the MDAQMD asbestos program.

In addition, San Bernardino County owned and operated sanitary landfills, and transfer stations are not permitted to accept asbestos contaminated wastes. Therefore, any debris generated by the demolition of structures are subject to asbestos clearance prior to disposal at any San Bernardino County disposal sites. Applicants are required to have a Certified Asbestos Consultant perform testing of all materials to be disposed. Upon receipt of the Consultant's report, indicating that the debris is not contaminated, Solid

Waste Management Operations Section provides the applicant with disposal authorization. The project owner is required to perform asbestos testing of demolition debris prior to disposal.

Fugitive Dust

Decommissioning and demolition activities would result in short-term localized air quality impacts from fugitive dust. Fugitive dust can be generated by mobilization and demolition at the site, vehicle travel over paved and unpaved surfaces, storage piles, and dust from concrete loading, crushing, and unloading operations. Potential risks to public health during decommissioning and demolition from fugitive dust would be associated with increased exposure to particulate matter, potential exposure to crystalline silica from concrete operations, and toxins disturbed in the soil.

Concrete crushing at construction sites can generate respirable crystalline silica dust. Silica dust has been classified as a lung carcinogen. The inhalation of silica dust can cause the formation of scar tissue which reduces the lungs ability to take in oxygen, lung disease, chronic obstructive pulmonary disease, and kidney disease.

The Occupational Safety and Health Administration (OSHA) has developed standards to limit worker exposure to respirable crystalline silica. Worker exposure to crystalline silica can occur from the use of jackhammers, chipping tools, grinders, and crushing machines. OSHA requires a written exposure control plan identifying tasks that involve exposure and methods used to protect workers. OSHA requirements are addressed in the **Worker Safety and Fire Protection** section of this staff analysis.

MDAQMD Fugitive Dust Rule 403 requires a person to take every reasonable precaution to minimize fugitive dust emissions from wrecking, excavation, grading clearing of land, and solid waste disposal. MDAQMD Rule 403 also requires visible dust to stay within a property line and every reasonable precaution to prevent visible particulate matter from being deposited on public roadways.

MDAQMD Fugitive Dust Control for the Mojave Desert Planning Area Rule 403.2 includes control measures in the Mojave Desert Planning Area Federal PM10 Attainment Plan. This rule requires construction/demolition of a source disturbing 100 or more acres to prepare and submit a dust control plan. This rule is intended to ensure the National Ambient Air Quality Standards for PM10 are not exceeded due to anthropogenic fugitive dust.

MDAQMD Rule 403.2 outlines specific elements to be included in the plan depending on the size of the construction/demolition activity. A dust control plan should be accessible on site and maintained for at least two years after the date of entry. In addition, MDAQMD Dust Control Plan Approval Requirements includes written guidance regarding the approval of such plans. The guidance states the dust control plan should include reasonably foreseeable or planned, as well as existing, activities on the site.

The **Air Quality** analysis recommends the addition of a new proposed condition **D-AQ-1**, requiring the project owner to develop a Dust Control Plan (DCP) to be submitted to the MDAQMD.

Valley Fever

Valley fever is an illness caused by a fungus found in the soil and dirt of regions including the southwestern United States. Symptoms include fever, chest pain, and coughing, among other signs. In California, the fungus is found in many areas of the San Joaquin Valley. The fungi's spores can be released into the air by anything that disrupts the soil, such as farming, construction, and wind. The fungi can then be breathed into the lungs and cause valley fever, also known as acute coccidioidomycosis. Historically, San Bernardino County has not been considered a highly endemic region for valley fever. However, annual recorded cases of coccidioidomycosis in San Bernardino County have been increasing. According to the California Department of Public Health (CDPH 2020), 101 cases have been recorded in 2020 as of May 31st. In comparison, the 2019 May report included 87 cases and the 2018 May report included 33 cases. Incorporating every reasonable precaution to control fugitive dust would lower the likelihood of potential exposure to the fungus causing valley fever. Concerns with Valley Fever would be adequately addressed through dust control requirements and measures addressed in the **Worker Safety and Fire Protection** section of this staff analysis.

Diesel Particulate Matter (DPM)

The demolition activities would include the operations of diesel-fueled construction equipment. Diesel engines are a major source of fine-particle pollution. California classifies diesel exhaust or diesel particulate matter (DPM) as a toxic air contaminant based on its potential to cause cancer. Risks are associated with the level and duration of exposure.

Prolonged exposure to DPM can increase risks of cardiovascular, cardiopulmonary and respiratory disease, and lung cancer. Short term exposures to high concentrations of DPM can result in headache, dizziness, and irritation of the eye, nose and throat. The elderly and people with emphysema, asthma, and chronic heart and lung disease are especially sensitive to fine-particle pollution. Children are also more susceptible than healthy adults to fine particles since their lungs and respiratory systems are still developing. Exposure to fine particles is associated with increased frequency of childhood illnesses and can also reduce lung function in children.

Any diesel equipment used at the site would be required to meet State of California diesel requirements. As applicable, the diesel equipment used would need to be registered through the Statewide Portable Equipment Registration Program or Diesel Off-road On-line Reporting System and associated equipment permits would need to be retained onsite. In addition, the California Air Resources Board (CARB) developed an airborne toxic control measure to limit diesel fueled commercial motor vehicle idling.

The County of San Bernardino Development Code establishes general performance standards to mitigate environmental impacts from new and existing land uses. The County of San Bernardino Development Code includes measures for controlling diesel exhaust emissions. Measures include idling requirements for off-road diesel

vehicle/equipment operations, the fuel requirements, engine and equipment maintenance requirements, signs requiring vehicles to turn off engines when parked, MDAQMD requirements, temporary traffic control, onsite electrical connections where feasible to reduce the use of diesel-powered tools and generators, and substituting electric and gasoline powered equipment for diesel equipment where feasible. In addition, the developer is responsible for certifying the construction equipment is properly serviced and maintained in good operating condition.

The CEC staff is recommending Public Health COC **D-PH-2**, requiring compliance with County of San Bernardino Development Code for controlling diesel exhaust emissions.

Nuisance

Decommissioning and demolition activities could potentially result in nuisance from fugitive dust and odors from equipment and vehicle diesel exhaust. As discussed above, a dust control plan would be required for controlling fugitive generated from decommissioning. Concerns with nuisance would be adequately addressed through the recommended COCs in the **Public Health** and **Air Quality** sections.

Odors

Decommissioning and demolition activities could result in odors from construction equipment and vehicle diesel exhaust. It is anticipated these odors would be temporary and intermittent and controlled through diesel requirements such as idling restrictions. The SEGS IX Final Decommissioning Plan does not include any other activities that are expected to generate objectionable odors. Therefore, the decommissioning and demolition activities are not expected to generate odors that result in a public nuisance impacting a substantial population at any off-site location.

CONCLUSIONS AND RECOMMENDATIONS

Potential risks to public health during decommissioning and demolition would be associated with contact or exposure to hazardous waste, exposure to toxic substances in contaminated soil, as well as diesel exhaust from off-road equipment operation during demolition activities. Staff concludes that implementation of proposed COCs, **D-PH-1** and **D-PH-2**, in addition to staff and project owner proposed conditions in the **Air Quality**, **Hazardous Materials Management**, **Worker Safety and Fire Protection**, and **Waste Management** sections of this staff analysis, would ensure that the decommissioning and demolition activities outlined in the SEGS IX Final Decommissioning Plan would comply with applicable LORS and would not result in significant impacts to public health.

REFERENCES

CDPH 2020 – Center for Infectious Diseases Division of Communicable Disease Control Infectious Diseases Branch Surveillance and Statistics Section – Coccidioidomycosis in California Provisional Monthly Report January - May 2020

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination

SOCIOECONOMICS

Ellen LeFevre

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX Decommissioning Plan (SEGS IX 2022) in relation to the technical area of **Socioeconomics**. The purpose of this analysis is to determine whether decommissioning of the project would avoid significant impacts on socioeconomics and comply with applicable LORS.

EXISTING SETTING

SEGS IX is located in San Bernardino County near the unincorporated community of Hinkley and approximately 29 miles west of the city of Barstow. The setting for the labor supply for decommissioning and demolition activities would be the Riverside-San Bernardino-Ontario Metropolitan Statistical Area (MSA) which covers Riverside and San Bernardino counties.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

There are no socioeconomic LORS applicable to the decommissioning activities.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

No adopted conditions of certification (COCs) pertaining to socioeconomics apply to the decommissioning activities at the SEGS IX site.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

None required.

ANALYSIS

The decommissioning of SEGS IX would take approximately 6 to 8 months to complete. Demolition activities associated with decommissioning would require a peak workforce of approximately 60 workers. The large workforce in the Riverside-San Bernardino-Ontario MSA is sufficient for the activities associated with decommissioning of SEGS IX (EDD 2022). If some workers were to temporarily relocate closer to the project site, there is sufficient housing in the nearby city of Barstow (CA DOF 2022). The decommissioning of SEGS IX would have less than significant socioeconomic impacts.

CONCLUSIONS AND RECOMMENDATIONS

From a socioeconomic standpoint, the activities associated with the Decommissioning Plan would have less than significant workforce-related impacts on population, housing, and public services including fire and police protection, schools, parks, recreation and other public facilities.

REFERENCES

CA DOF 2022 – California Department of Finance (CA DOF). E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2021-2022, with 2020 Benchmark, May 2022. Available online at: http://dof.ca.gov/Forecasting/Demographics/Estimates/E-5/

EDD 2022 – Employment Development Department, State of California (CA EDD). Labor Market Information Division, 2018-2028 Occupational Employment Projections, San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area, (San Benito and Santa Clara Counties), data last update July 7, 2022. Available online at: https://data.edd.ca.gov/Employment-Projections/Long-Term-Occupational-Employment-Projections/4yzm-uyfq

SEGS IX 2022 – SEGS IX Facility Decommissioning Plan and Petition to Terminate License, dated March 2022. (TN 242500). Available online at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=88-AFC-01C

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
SOIL AND WATER RESOURCES

Abdel-Karim Abulaban

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX (89-AFC-01C) decommissioning and demolition, as described in the decommissioning plan (LSA 2022) in relation to the technical area of **Soil and Water Resources**. The purpose of this analysis is to determine whether decommissioning and demolition of the project would avoid significant impacts on soil and water resources and comply with applicable and current LORS.

EXISTING SETTING

SEGS XI is an existing solar thermal electric generation facility located on flat alluvial fans of the Mojave Desert along the western edge of the dry lakebed of Harper Lake. Prior to construction of the project the land was used for agricultural production and later retired because of the high cost of pumping groundwater for irrigation (CEC 1989).

LAWS, ORDINANCES, REGULATIONS, ANDSTANDARDS (LORS)

The CEC staff has reviewed the LORS identified in the Decision for the SEGS VIII project and determined that they are still applicable.

Soil and Water Resources Table 1
Applicable Laws, Ordinances, Regulations, and Standards

Applicable LORS	Description	Consistency Determination
Federal		
Clean Water Act (33 USC Section 1251et seq.)	The Clean Water Act (CWA) (33 USC § 1251et seq.) requires states to set standards to protect water quality, which includes regulation of storm water and wastewater discharges during construction and operation of a facility. California established its regulations to comply with the CWA under the Porter-Cologne Water Quality Control Act of 1967. The CWA also establishes protection of navigable waters. Activities that result in the dredging or filling of jurisdictional waters of the United States require authorization under a Section 404 permit issued by the Army Corps of Engineers (USACE). The USACE may grant authorization under either an individual permit or a nationwide permit to address operations that may affect the ephemeral washes. Section 404 permits are also subject to CWA Section 401 water quality certification through the Regional Water Quality Control Board (RWQCB). Section 401 certification through the RWQCB is required if there are potential impacts to surface waters of the State and/or Waters of the United States, such as perennial and ephemeral drainages, streams, washes, ponds, pools, and wetlands. The RWQCB can require impacts to these waters to be quantified and mitigated.	**Consistent:** Consistency ensured by compliance with Measures **D-S&W-1 and D-S&W-2**

State		
The Porter-Cologne Water Quality Control Act of 1967, Water Code Sec 13000 et seq	Requires the State Water Resources Control Board (SWRCB) and the nine RWQCBs to adopt water quality criteria to protect state waters. Those regulations require that the RWQCBs issue Waste Discharge Requirements specifying conditions for protection of water quality as applicable. Section 13000 also states that the State must be prepared to exercise its full power and jurisdiction to protect the quality of the waters of the State from degradation.	**Consistent:** Consistency ensured by compliance with Measures **D-S&W-1** and **D-S&W-2**
State Water Resources Control Board General Permit CAS000002.	The SWRCB regulates storm water discharges associated with construction projects affecting areas greater than or equal to 1 acre to protect state waters. Under General Permit CAS000002, the SWRCB has issued a National Pollutant Discharge Elimination System (NPDES) General Permit for storm water discharges associated with construction activity. Projects can qualify under this permit if specific criteria are met and an acceptable Storm Water Pollution Prevention Plan (SWPPP) is prepared and implemented after notifying the SWRCB with a Notice of Intent.	**Consistent:** Consistency ensured by compliance with Measures **D-S&W-1** and **D-S&W-2**
California Water Code Section 13240, 13241, 13242, 13243, & Water Quality Control Plan for the Lahontan Region (Basin Plan)	The Basin Plan establishes water quality objectives that protect the beneficial uses of surface water and groundwater in the Region. The Basin Plan describes implementation plans and other control measures designed to ensure compliance with statewide plans and policies and provides comprehensive water quality planning. The following chapters are applicable to determining appropriate control measures and cleanup levels to protect beneficial uses and to meet the water quality objectives: Chapter 2, Present	**Consistent:** Consistency ensured by compliance with Measure **D-S&W-4**

	and Potential Beneficial Uses; Chapter 3, Water Quality Objectives, and the sections of Chapter 4, Implementation, entitled "Requirements for Site Investigation and Remediation," "Cleanup Levels," "Risk Assessment," "Stormwater Problems and Control Measures," Erosion and Sedimentation," "Solid and Liquid Waste Disposal to Land," and "Groundwater Protection and Management."	
Local		
County of San Bernardino General Plan and Development Code	Grading in San Bernardino County is subject to terms and conditions of San Bernardino County's General Plan, Development Code and California Building Code, based upon the 2006 International Building Code. If a county grading permit is required, the grading plan would need to be completed in compliance with San Bernardino County's General Plan and Development Code.	**Consistent:** Consistency ensured by compliance with Measure **D-S&W-3**
San Bernardino County Development Code Section 82.13.080, Soil Erosion and Sediment Control Plans/Permits	Section 82.13.080 establishes regulations and procedures to control human existing and potential induced accelerated erosion. Elements of this ordinance include project planning, preparation of Soil Erosion and Sediment Control Plans, runoff control, land clearing, and winter operations.	**Consistent:** Consistency ensured by compliance with Measures **D-S&W-1** through **D-S&W-3**.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

Decommissioning activities would take place within the existing project footprint. The existing COCs would not apply to the decommissioning and demolition activities. The decommissioning and demolition activities would not violate, or require action related to, the COCs contained in the **Soil and Water Resources** section of the Commission's Decision for SEGS IX.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

In addition to the existing COCs, the project owner is proposing the following four additional decommissioning conditions, **D-S&W-1** through **D-S&W-4**, to ensure that impacts of the decommissioning activities on soil and water resources would be less than significant.

D-S&W-1: The Project Owner shall implement the Project's existing National Pollutant Discharge Elimination System (NPDES) Permit for decommissioning and demolition to mitigate potential water resource impacts during demolition activities.

Verification: Prior to the start of demolition activities, the project owner shall notify the CPM, in writing, that this requirement has been satisfied.

D-S&W-2: The Project Owner shall implement the existing Stormwater Pollution Prevention Plan (SWPPP) for decommissioning and demolition of the Project. The SWPPP identifies erosion control measures to be implemented and maintained during decommissioning and demolition activities.

Verification: Prior to the start of demolition activities, the project owner shall notify the CPM, in writing, that this requirement has been satisfied.

D-S&W-3: Any underground utility lines and piping that will be abandoned in place shall be cut, grouted, and capped at or below the ground surface. A map of all buried utility lines and piping that are proposed to be abandoned in place shall be prepared and submitted before decommissioning and closure are finalized.

Verification: Upon completion of demolition activities, the project owner shall notify the CPM, in writing, that this requirement has been satisfied.

D-S&W-4: Prior to closure of the evaporation ponds, the Project Owner shall update the 1992 Evaporation Ponds Closure Plan, as needed, per Lahontan RWQCB's current standards and submit to the Lahontan RWQCB for review. A copy of the final version of the revised plan shall be provided to CEC.

Verification: Prior to the closure of the evaporation, the project owner shall notify the CPM, in writing, that this requirement has been satisfied.

The conditions proposed by the project owner, **D-S&W-1** through **D-S&W-4** are adequate to ensure that there would be no unmitigated significant impacts on soil and water resources. The decommissioning and closure activities would not violate, or require action related to, the COCs contained in the Soil and Water Resources section of the decision for this project.

ANALYSIS

Based on the draft final decommissioning plan provided by the owner disturbance of soil at the site would be limited to areas immediately surrounding elements of the facility that will be removed, such as support structures and connections to buried utilities.

Since the project is located within a topographically closed drainage basin and does not drain to waters of the United States, the project owner would not need to apply for coverage under the State Water Resources Control Board's General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2012-0006-DWQ). However, the project owner would comply with the existing SWPPP containing BMPs to ensure that impacts to water quality from decommissioning and closure activities would be less than significant.

The project was also built on low-risk soils in terms of erosion, and discharges to a waterbody classified as non-sensitive for sedimentation, Harper Lake. The proposed activity is therefore a low threat to local water quality.

SEGS IX does not have a COC that limits water usage. SEGS IX is limited to 950 acre-feet per year (AFY) during operation by Water Supply COC, **Requirement 4** in the license for that facility. The two SEGS solar thermal power plants averaged 954 AFY between 2010 and 2013, but only 615 AFY for 2017. The combined projects therefore appear to be using less water than was originally anticipated. Decommissioning and closure activities would require substantially less water than the project has been using for operation. The water, pumped from groundwater wells onsite, would be used primarily for dust control. The water usage for decommissioning and closure activities would not be expected to create an adverse impact.

After considering all the activities involved in the decommissioning and closure plan, the project would not result in any additional environmental impacts in terms of soil and water resources in comparison with the original analysis for the final decision and certification of the project. The project would also continue to comply with applicable LORS.

The two projects, SEGS VIII and IX, have been using an onsite water treatment system (OWTS) consisting of three evaporation ponds for treatment and disposal of operational wastewater generated by the two projects. A SEGS VIII & IX Evaporation Ponds Closure Plan, prepared and submitted to Lahontan RWQCB on May 29, 1992, would be updated as needed per the regional water board's most current standards per **D-S&W-4**. The closure plan currently assumes that all solid waste (e.g., salts, sands, HDPE liners, polyvinyl chloride leak detection drains, Geonet Geotextile) from two of the ponds would be moved to the third pond. The two ponds that have been emptied would then be "clean" closed. The third pond would be sealed/capped as a landfill (LSA 2019).

If the project owner complies with the existing as well as the owner-proposed COCs impacts to soil and water resources would be less than significant. The proposed decommissioning of the project would not result in any changes or deletions to the existing COCs related to soil and water resources.

CONCLUSIONS AND RECOMMENDATIONS

With the CEC's approval of the Final Decommissioning Plan and the adoption of the four conditions of decommissioning proposed by the project owner, **D-S&W-1** through**D-**

S&W-4, the CEC staff concludes that the proposed decommissioning of the facility would not result in significant environmental impacts in terms of soil and water resources.

REFERENCES

CEC 1990 - California Energy Commission (CEC). Commission Decision, Application For Certification For, Luz Engineering Corporation, Luz SEGS IX & X Projects (Harper Dry Lake). February 1990. Docket No. 89-AFC-01.

LSA 2019 - Draft Facility Decommissioning Plan, Solar Energy Generating Systems (SEGS) IX, 89-AFC-01C, San Bernardino County, California. TN: 231367. Accessed at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=89-AFC-01C. Accessed on June 25, 2020. Accessed June 29, 2020.

LSA 2022 – Final Facility Decommissioning Plan and Petition to Terminate License, Solar Energy Generating System (SEGS) IX (89-AFC-01C), San Bernardino County, California, March 2022, Docket Number 89-AFC-01C, TN: 242500.

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination

TRANSPORTATION

Ellen LeFevre and Steve Kerr

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX Decommissioning (SEGS IX 2022) in relation to the technical area of **Transportation**. The purpose of this analysis is to determine whether decommissioning of the project would avoid significant impacts on transportation and comply with applicable LORS.

EXISTING SETTING

SEGS IX is located in San Bernardino County approximately 7 miles northeast of the intersection of Harper Lake Road and Highway 58. Primary access to the site would be from Harper Lake Road and Highway 58. Regional access includes Highway 395 and State Route 14. There is a railroad track located south of the project which runs east-west. A private airport is located approximately 14 miles southeast near Helendale and the Barstow Daggett County Airport is located approximately 33 miles southeast.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

The following are transportation related LORS that are applicable to the proposed decommissioning and demolition activities.

Applicable LORS	**Description**	**Consistency Determination**
Federal		
49 Code of Federal Regulations, Chapter III, Subchapter B, Sections 350–399, Motor Carrier Safety, Registration, and Transportation of Hazardous Materials	Establishes regulations affecting interstate motor carrier operations, routing registrations, insurance of vehicles and operational safety; describes transportation standards for radioactive and hazardous materials.	**Consistent:** Decommissioning activities would comply with these requirements through implementation of proposed COC **D-TRAFFIC-2** during decommissioning, and County Condition of Approval (COA) F94 during demolition activities.

State		
California Vehicle Code, Division15, Size, Weight, and Load, Sections 35000 –35796	Provides requirements as to the size and licensing of vehicles on public highways.	**Consistent:** Vehicles associated with decommissioning activities would meet these requirements or obtain the required permits to exceed the requirements.
Local		
San Bernardino County Congestion Management Program	Industrial and warehouse truck uses must show the estimated number and distribution of truck trips (in Passenger Car Equivalents) for both peak hours and hours being studied.	**Consistent:** A Traffic Impact Assessment is required if a project is forecasted to generate 250 two-way peak-hour trips. Current traffic volume projections associated with decommissioning activities are not anticipated to require the preparation of a Traffic Impact Assessment. However, activities would maintain compliance with the Congestion Management Program objectives and policies.
San Bernardino County General Plan, Threshold Standards Policy	The County's Threshold Standards Policy requires that Level of Service (LOS) D or better be maintained on intersections under the County's jurisdiction.	**Consistent:** Per **D-TRAFFIC-1**, a Construction Management Plan has been completed, and it is not anticipated that level of service at any intersections under the County's jurisdiction would fall below LOS D because of the decommissioning activities.

County Code, Title 5, Division 1, Highway Permit	Addresses permitting requirements for oversize and overweight vehicles.	**Consistent:** All necessary permits for oversize or overweight vehicles would be obtained consistent with Transportation COCs **1**, **2**, and **D-TRAFFIC-2**.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

The following are SEGS IX Transportation COCs as amended in the Decision that would apply during decommissioning:

1 The Project Owner shall comply with the San Bernardino County and Caltrans restrictions on oversize or overweight limit vehicles. The Project Owner shall obtain necessary transportation permits from the County and Caltrans. The Project Owner shall maintain copies of these permits in its compliance file for a period of six months after the start of commercial operations**.**

Verification: In its Monthly Compliance Reports, the Project Owner shall notify the CEC CPM of any transportation permits obtained during the reporting period.

2 The Project Owner shall comply with San Bernardino County and Caltrans requirements for encroachment on a public right-of-way. The Project Owner shall obtain necessary encroachment permits from the County and Caltrans. The Project Owner shall maintain copies of these permits in its compliance file for a period of six months after the start of commercial operations.

3 The Project Owner shall not start any construction on each of the SEGS Unit IX and X projects prior to receiving CEC CPM approval of their Transportation System Management (TSM) plan, which will be based on its TSM program originally submitted for SEGS Unit VIII. The SEGS Unit IX TSM plan will describe specific implementation of the TSM program:

a. Baseline, and quarterly, measurement of traffic on SR 58 to establish whether it is necessary to stagger shifts. The first measurements shall be taken prior to the start of construction of SEGS Unit IX. At least one of the quarterly measurements shall be taken early during the period of peak employment when construction-related traffic will be at its maximum. Quarterly measurements shall continue during construction. The Project Owner shall, if necessary, schedule shift changes for operations and construction employees at SEGS Units III-VII and operations employees at SEGS Unit VIII and IX so as not to coincide with arrivals and departures for construction employees at SEGS Unit IX and shall schedule all types of arrivals and departures so as not to coincide with morning and evening peak traffic hours on SR 58, based on the measuring.

b. The TSM plan shall consist of individual elements which contain discussions of the specific measures proposed to be used to effectively carry out that element, and a description of those measures which will be used to evaluate the effectiveness of the element. Elements shall include, but not be limited to, carpooling, vanpooling, and staggering of work hours.

c. The goal of the TSM plan will be to reduce the total number of vehicles traveling the same section of SR 58 at a given time, and as a part of the plan, the Project Owner will establish a goal for the amount of traffic reduction it will achieve.

d. The Project Owner shall maintain copies of the TSM plan on site in its compliance files for a period of six months after the start of commercial operations.

Verification: The Project Owner shall submit a copy of its SEGS Unit IX TSM plan to the CEC CPM a minimum of 30 days prior to the start of construction. Within 15 days of receipt, the CEC CPM shall respond to the Project Owner regarding the adequacy of the TSM plan. In its Monthly Compliance Reports (MCR), the Project Owner shall notify the CEC CPM of:

a. the ongoing effectiveness of the TSM program and plan, including whether its goal for traffic reduction has been achieved;

b. of any additional measures needed to more effectively implement the TSM plan; and

c. of changes to the shift schedule(s) which are necessary or have been implemented.

The Project Owner shall notify the CEC CPM of the scheduled date(s) for quarterly traffic measurements in its Weekly Activities Report.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

The following COCs are proposed by the project owner to be implemented during decommissioning to further ensure that activities conform with applicable LORS:

D-TRAFFIC-1: The project owner shall provide a Construction Management Plan (CMP) to the County of San Bernardino for review and approval prior to the start of decommissioning activities.

Verification: Prior to the start of decommissioning activities, the Project Owner shall provide to the CEC CPM documentation of submittal and approval of the CMP by the County of San Bernardino.

D-TRAFFIC-2: The project owner shall utilize only licensed haulers, using approved vehicles marked in an appropriate manner, for the transportation of all hazardous, toxic, and flammable materials. All such materials shall be transported in compliance with all

applicable requirements of the U.S. Department of Transportation, the California Highway Patrol, and the California Department of Transportation (Caltrans).

Verification: Prior to the start of decommissioning activities, the Project Owner shall certify to the CEC CPM that they and their contractors and subcontractors will comply with the above requirements.

ANALYSIS

The proposed activities would generate a maximum of 21 daily truck trips during the 6 to 8-month decommissioning period. The Transportation COCs, **1** through **3** in the Decision are applicable to decommissioning activities. The project owner has proposed **D-TRAFFIC-1** and **D-TRAFFIC-2** to be implemented during decommissioning. **D-TRAFFIC-1** would require a Construction Management Plan to ensure compliance with the San Bernardino County Congestion Management Program's objectives and policies. **D-TRAFFIC-2** would require the use of licensed haulers and approved vehicles to ensure compliance with all applicable regulations for the transport of hazardous, toxic, and flammable materials.

With implementation of the above COCs and the project owner's proposed conditions, the decommissioning of SEGS IX would comply with applicable transportation LORS and have less than significant transportation impacts.

CONCLUSIONS AND RECOMMENDATIONS

The SEGS IX decommissioning activities would generate a negligible amount of temporary vehicle trips, which would not conflict with CEQA Guidelines section 15064.3, subdivision (b), with regards to vehicle miles traveled. Additionally, with the implementation of COCs **1** through **3**, in the Decision and the adoption of **D-TRAFFIC-1** and **D-TRAFFIC-2** as proposed in the Decommissioning Plan, the proposed activities would not conflict with LORS addressing the circulation system, substantially increase hazards, or result in inadequate emergency access. Therefore, the decommissioning of SEGS IX would result in less than significant impacts to transportation.

REFERENCES

SANBAG 2016 –San Bernardino Associated Governments (SANBAG). San Bernardino County Congestion Management Program, 2016 Update, dated June 2016. Available online at:https://www.gosbcta.com/wp-content/uploads/2019/10/2016-Congestion-Management-Plan-.pdf

SEGS IX 2022 – SEGS IX Facility Decommissioning Plan and Petition to Terminate License, dated March 2022. (TN 242500). Available online at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=88-AFC-01C

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
TRANSMISSION LINE SAFETY AND NUISANCE

Tao Jiang

INTRODUCTION

In this section, the CEC staff discusses the proposed SEGS IX decommissioning and demolition in relation to the technical area of **Transmission Line Safety and Nuisance**. The purpose of this analysis is to determine whether decommissioning and demolition of the project, as laid out in the Plan (TN 242500), would avoid significant transmission line safety and nuisance impacts and would be in compliance with applicable LORS.

EXISTING SETTING

SEGS IX is an existing 80-MW solar thermal power plant located at 43880 Harper Lake Road, in an unincorporated portion of San Bernardino County. The existing 13.5-mile 220 kilovolt (kV) generator tie-line would remain in place and be utilized for the future solar PV facility. On-site transmission poles and conductors would remain in place if they can be used to support the future Lockhart Solar PV facility; otherwise, they would be removed. The switchyard would remain in place for continued use by the future solar PV facility. The SEGS IX substation would be removed.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The LORS and practices listed in **Transmission Line Safety and Nuisance Table 1** apply to aviation safety, interference with radio frequency communication, audible noise, fire hazards, hazardous and nuisance shocks, and electric and magnetic fields. The CEC staff reviewed the SEGS IX decommissioning plan to determine compliance with the listed LORS. The LORS conformance determination is included in the "Analysis" subsection.

Transmission Line Safety and Nuisance Table 1
Laws, Ordinances, Regulations, and Standards

Applicable LORS	Description	Consistency Determination
Aviation Safety		
Federal		
Title 14 Code of Federal Regulations Part 77 (Safe, Efficient Use and Preservation of the Navigable Airspace)	Describes the criteria used to determine the need for a Federal Aviation Administration (FAA) "Notice of Proposed Construction or Alteration" in cases of potential obstruction hazards.	**Consistent:** Staff does not expect decommissioning and demolition activities to create an obstruction hazard.

FAA Advisory Circular 70/7460-1L (Obstruction Marking and Lighting)	Describes the FAA standards for marking and lighting objects deemed an air navigation hazard	**Consistent:** Staff does not expect decommissioning and demolition activities to pose an air navigation hazard.
Communication Interference		
Federal		
Title 47 Code of Federal Regulations, part 15 (Radio Frequency Devices)	Regulates operation of devices that can interfere with communications.	**Consistent:** Staff does not expect decommissioning and demolition activities to interfere with communications.
Federal Communications Commission (FCC) Communications Act of 1934 as amended by the Telecom Act of 1996	Creates the Federal Communication Commission tasked with regulating communications by radio, television, wire and satellite. The FCC regulations prohibit operations of radio frequency devices to cause interference with licensed services.	**Consistent:** Staff does not expect decommissioning and demolition activities to interfere with communications.
State		
California Public Utilities Commission (CPUC) General Order 52 (GO-52)	Governs the construction and operation of power and communications lines to prevent or mitigate interference.	**Consistent:** Staff does not expect decommissioning and demolition activities to interfere with communications.
Audible Noise		
State		
Governor's Office of Planning and Research State General Plan Guidelines	Includes recommendations for noise level standards to prevent the creation of incompatible land uses due to noise.	**Consistent:** Significant audible noise is not expected from the decommissioning and demolition activities associated with the transmission line.
Local		
County of San Bernardino Noise Ordinance	Establishes standards for both noise-sensitive land use and noise-generating land uses.	**Consistent:** Significant audible noise is not expected from the decommissioning and demolition activities associated with the transmission line.

Fire Hazards		
State		
Title 14, California Code of Regulations, sections 1250-1258 (Fire Prevention Standards for Electric Utilities)	Provides specific exemptions from electric pole and tower firebreak-clearance standards, electric conductor clearance standards, and specifies when and where standards apply. Incorporates provisions of Public Resources Code sections 4292-4296.	**Consistent:** The decommissioning and demolition activities are not expected to create a fire hazard. The project owner would still need to adhere to applicable clearance standards for project lines/equipment remaining active.
CPUC GO-95 (Rules for Overhead Electric Line Construction)	Includes regulations to protect the public from potential fire hazards associated with power line facilities. Compliance is expected.	**Consistent:** The decommissioning and demolition activities are not expected to create a fire hazard. The project owner would still need to adhere to applicable standards for project lines/equipment remaining active.
CPUC GO-165 (Inspection requirements for Electric Distribution and Transmission Filities)	Establishes inspection cycles for electric distribution and transmission facilities (excluding facilities contained in a substation). Establishes inspection systems for transformers, switching/protective devices, regulators/capacitors and other specified equipment.	**Consistent:** The decommissioning and demolition activities are not expected to create a fire hazard. The project owner would still need to adhere to applicable inspection and maintenance standards for project lines/equipment remaining active.
CPUC GO-166 (Standards for Operation, Reliability and safety During Emergencies and Disasters)	Establishes standards for electric utilities to ensure the utilities are prepared for emergencies and disasters. The measures include a Fire Prevention Plan (FPP) for facilities located in areas designated in the highest two tiers on the CPUC fire-threat map.	**Consistent:** The SEGS IX facility is not located in an area currently designated in the specified tiers requiring an FPP.

Hazardous and Nuisance Shocks		
State		
CPUC GO-95 (Rules for Overhead Electric Line Construction)	Governs clearance requirements to prevent hazardous shocks, grounding techniques to minimize nuisance shocks, and maintenance and inspection requirements.	**Consistent:** The decommissioning and demolition activities are not expected to create hazardous or nuisance shocks. The project owner would still need to adhere to applicable safety standards for project lines/equipment remaining active.
Title 8, California Code of Regulations, section 2700 and the following (High Voltage Safety Orders)	Specifies requirements and minimum standards for safely installing, operating, working around, and maintaining electrical installations and equipment.	**Consistent:** The decommissioning and demolition activities are not expected to create hazardous or nuisance shocks. The project owner would still need to adhere to applicable safety standards for project lines/equipment remaining active.
National Electrical Safety Code (NESC)	Specifies grounding procedures to limit nuisance shocks and specifies minimum conductor ground clearances.	**Consistent:** The decommissioning and demolition activities are not expected to create hazardous or nuisance shocks. The project owner would still need to adhere to applicable safety standards for project lines/equipment remaining active.
Industry Standards		

Institute of Electrical and Electronics Engineers (IEEE) 1119 (IEEE Guide for Fence Safety Clearances in Electric-Supply Stations)	Specifies guidelines for grounding-related practices within the right-of-way and substations.	**Consistent:** The decommissioning and demolition activities are not expected to create hazardous or nuisance shocks. The project owner would still need to adhere to applicable safety standards for project lines/equipment remaining active.
Electric and Magnetic Fields (EMF)		
State		
CPUC GO-131D (Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California)	Specifies application and noticing requirements for new line construction including EMF reduction.	**Consistent:** There are no new transmission lines proposed as part of the decommissioning and demolition activities.
CPUC Decision 93-11-013	Specifies CPUC requirements for reducing power frequency electric and magnetic fields.	**Consistent:** Decommissioning and demolition activities are not expected to produce EMF.
CPUC Decision 06-01-042	Re-affirms CPUC EMF Policy in 93-11-013. Staff does not expect significant EMF exposure from the continued operation of the generator tie-line.	**Consistent:** Decommissioning and demolition activities are not expected to produce EMF.
Industry Standards		
Institute of Electrical and Electronics Engineers (IEEE) 644-1944 Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields from AC Power Lines	Specifies standard procedures for measuring electric and magnetic fields from an operating electric line. Staff does not expect significant EMF exposure from the continued operation of the generator tie-line.	**Consistent:** Decommissioning and demolition activities are not expected to produce EMF.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

None of the Transmission Line Safety and Nuisance Conditions of Certification in the Final Commission Decision (or subsequent amendments) would apply directly to the demolition and decommissioning activities to mitigate safety and nuisance effects or ensure LORS compliance.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

The project owner and staff are not proposing any additional conditions for Transmission Line Safety and Nuisance.

ANALYSIS

The project owner is proposing to decommission SEGS IX to make way for a solar PV facility (not under CEC jurisdiction). The existing generator tie-line and switchyard would remain in place and be used for the future solar PV facility. During safe layup, the SEGS IX would be isolated from the generator tie-line by disconnection of the generator tie-line conductors between the switchyard and the associated substation. On-site transmission poles and conductors would remain in place if they can be used to support the future Lockhart Solar PV facility; otherwise, they would be removed. Conductors would either be sold as scrap metal to be recycled or sent to a licensed disposal facility. The SEGS IX substation would be removed.

CONCLUSIONS AND RECOMMENDATIONS

The CEC staff concludes the decommissioning activities outlined in the SEGS IX Final Decommissioning Plan would not result in significant transmission line safety and nuisance impacts. Any onsite worker safety considerations associated with the transmission line decommissioning and demolition activity would be addressed through **Worker Safety and Fire Protection** requirements.

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
TRANSMISSION SYSTEM ENGINEERING

Laiping Ng and Mark Hesters

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX decommissioning and demolition, as described in the plan (TN242500) in relation to the technical area of **Transmission System Engineering**. The purpose of this analysis is to determine whether decommissioning and demolition of the project would avoid significant impacts on transmission system and would be in compliance with applicable LORS.

EXISTING SETTING

The SEGS IX is a concentrated solar thermal power facility generating up to 80 MW of electric power. The generated power is transferred to SCE transmission system via a 13.5-mile long, 220 kV generator tie-line. The decommissioning and demolition activities do not include the switchyard and the generator tie-line. The transmission poles and towers would also remain if they can be reused for the future project.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

None.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

None.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

None.

ANALYSIS

The decommissioning and demolition activities would not involve the generator tie-line.

There would not be impacts to the technical area of **Transmission System Engineering**.

CONCLUSIONS AND RECOMMENDATIONS

The decommissioning and demolition activities would not involve the generator tie-line.

There would not be impacts to the technical area of **Transmission System Engineering**.

REFERENCES

SEGS IX 2022 – Solar Energy Generation Systems, Unit IX (TN242500). Final Decommissioning Plan. March 2021. Accessed on: August 25, 2022. Available at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=242500&DocumentContentId=76006

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination

VISUAL RESOURCES

Mark Hamblin

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX Decommissioning (SEGS IX 2022) in relation to the technical area of **Visual Resources**. The purpose of this analysis is to determine whether decommissioning of the project would avoid significant impacts on visual resources and comply with applicable LORS.

EXISTING SETTING

The proposed decommissioning would occur at an existing operating SEGS IX on relatively flat land in a rural largely undeveloped desert area along the west side of Harper Lake (dry lake), north-northwest of the unincorporated community of Hinkley, San Bernardino County, California.

The Black Mountain Wilderness and Tiefort Mountains are to the northeast. The Antelope Valley, unincorporated community of Boron, and Edwards Air Force Base are to the west. U.S. Route 395, a major north-south federal highway, is to the west. California Route 58, a major east-west state highway is south.

The project owner intends to decommission SEGS IX and replace it with a new photovoltaic solar facility. Refer to the Facility Decommissioning section for details regarding the project.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

The CEC staff reviewed the *County of San Bernardino 2007 General Plan*, and San Bernardino County 2007 Development Code, Chapter 82.04 Residential Land Use Zoning District for references to scenic quality specific to decommissioning activities as analyzed below.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

No adopted conditions of certification (COCs) pertaining to visual resources apply to the activities at the SEGS IX site.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

None required.

ANALYSIS

The *County of San Bernardino 2007 General Plan*, Land Use Map shows the project site in a Rural Living Land Use Zoning District. Review of San Bernardino County 2007 Development Code, Chapter 82.04 Residential Land Use Zoning District, shows no conflict.

Review of aerial and street imagery shows the project site is not located within a scenic vista as defined by the Commission, and the decommissioning activities would not substantially damage scenic resources or degrade the visual character or quality of public views of the site and its surroundings.

Demolition would occur during daylight hours. Existing facility lighting and temporary lighting would be used to maintain site security at night. Outdoor lighting would be directed away from surrounding properties and the public right of way. Light fixtures would be hooded/shielded.

The demolition of SEGS IX would remove parabolic troughs and their reflectivity, a power block with a cooling tower and its emitted publicly visible water vapor plumes.

The CEC staff concludes decommissioning activities would not conflict with LORS and would have less than significant impacts on visual resources.

CONCLUSIONS AND RECOMMENDATIONS

Decommissioning of the project would comply with LORS and would not substantially damage or degrade a scenic vista, scenic resources, or the existing visual character or quality of public views of the project site and its surroundings.

REFERENCES

County of San Bernardino 2007a – *County of San Bernardino 2007 General Plan*. Section II – Land Use. Pages II-8 and II-9. Prepared by URS Corporation. Santa Ana, CA. Adopted March 13, 2007; Effective April 12, 2007; Amended April 24, 2014. Available online at: http://cms.sbcounty.gov/lus/Planning/GeneralPlan.aspx

County of San Bernardino2007b – 2007 Development Code, Chapter 82.04 Residential Land Use Zoning District. Available online at: https://cms.sbcounty.gov/lus/Planning/DevelopmentCode.aspx

SEGS IX 2022 – SEGS IX Facility Decommissioning Plan and Petition to Terminate License, dated March 2022. (TN 242500). Available online at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=88-AFC-01C

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
WASTE MANAGEMENT

Mike Turner, PG, CEG

INTRODUCTION

In this section, the CEC staff discusses the SEGS IX (89-AFC-01C) decommissioning and demolition, as described in the decommissioning plan (LSA 2022) in relation to the technical area of **Waste Management**. The purpose of this analysis is to determine whether decommissioning and demolition of the project would avoid significant waste management impacts and would comply with applicable LORS.

EXISTING SETTING

SEGS IX is an existing solar thermal electric facility located on flat alluvial fans along the western edge of the dry lakebed of Harper Lake. Prior to the construction of the project, the land was used for agricultural production but was taken out of production because of the high cost of pumping groundwater for irrigation (CEC 1990).

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

Applicable LORS	Description	Consistency Determination
Federal		
Title 42, United States Code (U.S.C.), §6901, et seq. Solid Waste Disposal Act of 1965 (as amended and revised by the Resource Conservation and Recovery Act of 1976, et al.)	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.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1**

Title 42, U.S.C., §6901, et seq. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)	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.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**
Title 42, U.S.C., §6901, et seq. Resource Conservation and Recovery Act (RCRA)	RCRA establishes requirements for the management of hazardous wastes from the time of generation to the point of ultimate treatment or disposal.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**
Title 40, Code of Federal Regulations (CFR), Parts 239–282	These sections contain regulations promulgated by the United States Environmental Protection Agency (USEPA) to implement the requirements of the RCRA.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**

State		
California Health and Safety Code (HSC), Chapter 6.5, §25100, et seq. Hazardous Waste Control Act of 1972, as amended	This California 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.	**Consistent:** ensured by Waste COC, **Requirement 1.**
Title 14, California Code of Regulations (CCR), Division 7, 17200, et seq.	These regulations further implement the provisions of the California Integrated Waste Management Act and sets 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.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**
Title 22, CCR, Division 4.5. Environmental Health Standards for the Management of Hazardous Waste	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 RCRA. The Title 22 regulations are established and enforced at the state level by the Department of Toxic Substances Control (DTSC). Some generator and waste treatment standards are also enforced at the local level by Certified Unified Program Agencies (CUPAs).	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**

Title 22, CCR, Section §66260.10 (standards for generators of hazardous waste)	Establishes requirements for generators of hazardous waste.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**
Title 22, CCR, Section §66260.20(f), Chapter 10, Article 3, Classification of a Waste as Hazardous or Nonhazardous.	This section establishes requirements and procedures for obtaining waivers to use alternative test methods or analytical methods for classifying non-RCRA hazardous waste and for obtaining the Department's concurrence for using alternative methods allowed by the USEPA Administrator per 40 CFR Section 260.21 for the analysis of RCRA hazardous waste.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**
HSC § 25100 *et seq.* (Hazardous Waste Control Act of 1972, as amended)	Creates the framework under which hazardous wastes must be managed in California. It mandates the DTSC under the California Environmental Protection Agency (CalEPA), to develop and publish a list of hazardous and extremely hazardous wastes and to develop and adopt criteria and guidelines for the identification of such wastes. It also requires hazardous waste generators to file notification statements with Cal EPA and create a manifest system to be used when transporting such wastes.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**

HSC § 25270-25270.13	25270. This chapter shall be known and may be cited as the Aboveground Petroleum Storage Act. 25270.2. For purposes of this chapter, the following definitions apply: (a) "Aboveground storage tank" or "storage tank" means a tank that has the capacity to store 55 gallons or more of petroleum and that is substantially or totally above the surface of the ground.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**
Title 27, CCR, §15100 et seq. (Unified Hazardous Waste and Hazardous Materials Management Regulatory Program)	Consolidates, coordinates, and makes consistent portions of the following six existing programs: • Hazardous Waste Generators and Hazardous Waste Onsite Treatment; • Underground Storage Tanks; • Hazardous Material Release Response Plans and Inventories; • California Accidental Release Prevention Program; • Aboveground Storage Tanks (spill control and countermeasure plan only); • Uniform Fire Code Hazardous Material Management Plans and Inventories; The statute requires all counties to apply to the CalEPA Secretary for the certification of a local unified program agency.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**
Title 22, CCR, Section § 67100.10 (Hazardous Waste Source Reduction and Management Review)	Establishes reporting requirements for generators of certain hazardous and extremely hazardous wastes in excess of specified limits.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**

Title 24, CCR, Part 11, Section § 5.408 (Construction and Waste Reduction)	Establishes standards for construction and demolition waste management and recycling or salvage of a minimum of 65% of nonhazardous construction and demolition waste.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**
Local		
San Bernardino County Ordinance, Title 3 Health and Safety:	These regulations govern the use, generation, storage, and disposal of hazardous materials and wastes with San Bernardino County Fire Department, which serves as the local CUPA and authorized to implement the provisions of the California Unified Program elements. San Bernardino County Public Works Department, Solid Waste Division, has developed a solid waste program to oversee the handling, processing, and disposal of non-hazardous solid waste to safeguard public health.	**Consistent:** Consistency ensured by Waste COC, **Requirement 1.**

APPLICABLE EXISTING CONDITIONS OF CERTIFICATION IN DECISION

The applicable COCs are listed below.

Requirement 1: Non-hazardous construction wastes from SEGS Unit IX shall be disposed of by Luz or its contractors at Barstow area landfills or at facilities approved by the Lahontan Regional Water Quality Control Board (LRWQCB), the San Bernardino County Department of Environmental Health Services (DEHS), or other appropriate agencies in counties where alternate disposal facilities may be located.

Hazardous wastes generated during construction and operation shall be disposed of at the Kettleman Hills facility or a California Department of Health Services (CDHS) approved facility, if not treated on-site following CDHS approval of the treatment process.

Verification: Luz shall obtain and keep on file at the project site for 3 years copies of the following documents which shall be available for CEC Staff review:

a. contracts and agreements Luz or its contractors have entered into with waste hauling companies and treatment, storage, recycling or disposal facility operators

b. for the collection, treatment, recycling storage, or disposal of non-hazardous and hazardous liquid or solid wastes;

c. any applicable permits to operate received by companies listed in part (1) above; and

d. all receipts obtained by Luz or its contractors from the above companies for wastes delivered for treatment, storage, disposal, or recycling including hazardous waste manifests.

Luz shall inform the CEC CPM via monthly or annual compliance reports when any of the above information is obtained and provide a listing of such information for 1 and 2 above.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

None.

ANALYSIS

Based on the final decommissioning plan provided by the owner, after cessation of operations, all remaining nonhazardous wastes would be collected and disposed of in appropriate recycling centers, landfills, or waste collection facilities according to all applicable LORS. Hazardous wastes would be disposed of according to all applicable LORS. The site would be secured 24-hours per day during decommissioning activities (LSA 2022).

Decommissioning would entail the breakdown and removal of structures and facilities. Materials from these activities such as concrete, glass, and metal would be transported via heavy haul dump truck to the appropriate landfill identified. Debris would be placed in temporary on-site storage area(s) pending transportation to the recycling/disposal facilities. Other wastes, including HTF, lubricating oils, fuels, water treatment chemicals, universal waste, and possible lead- and asbestos-containing materials would be managed for proper containerization, profiling, and shipment off site for disposal or recycling (LSA 2022).

An exception to the above practices would be the decommissioning of the septic system. This would be completed in accordance with the applicable LORS identified above. Any material from the septic system that needs to be disposed of off-site would be handled in the same fashion as similar classified waste from site decommissioning.

The existing COCs in the Decision are adequate to ensure there would be no unmitigated significant impacts to waste management, or unmitigated impacts to public health and safety due to waste management. The proposed decommissioning of the project would not result in any necessary changes or deletions to the existing COCs for Waste Management.

Adherence to the applicable waste management COCs for the project during decommissioning activities and up until an order terminating CEC jurisdiction over the

project is obtained by the project owner, along with compliance with the LORS applicable to waste management identified in this analysis, would ensure that impacts would be less than significant.

CONCLUSIONS AND RECOMMENDATIONS

Based on the information provided by the project owner, the CEC staff concludes the proposed decommissioning of the facility would not result in significant waste management impacts. The proposed decommissioning would not require any change to the COCs related to waste management adopted by the CEC in its Decision for SEGS IX (CEC 1990).

REFERENCES

CEC 1990 – California Energy Commission, Commission Decision, Application for Certification for Luz SEGS IX& X Projects (Harper Lake), February 1990, Docket No. 89-AFC-01C.

LSA 2022 – Final Facility Decommissioning Plan and Petition to Terminate License, Solar Energy Generating System (SEGS) IX (89-AFC-01C), San Bernardino County, California. Docket Number 89-AFC-01C, TN: 242500.

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
WORKER SAFETY AND FIRE PROTECTION

Brett Fooks

INTRODUCTION

In this section, CEC staff discusses the SEGS IX decommissioning and demolition, as described in the Plan (TN 242500) in relation to the technical area of **Worker Safety and Fire Protection**. The purpose of this analysis is to determine whether decommissioning and demolition of the project would avoid significant worker safety and fire protection impacts and would be in compliance with applicable LORS.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS)

Worker Safety and Fire Protection Table 1 outlines the federal and state laws and policies that apply to worker safety and fire protection for the SEGS IX Decommissioning.

Worker Safety and Fire Protection Table 1
LORS Applicable to Worker Safety and Fire Protection

Applicable LORS	Description	Consistency Determination
Federal		
Title 29 U.S. Code (USC) section 651 et seq (Occupational Safety and Health Act of 1970)	This act mandates safety requirements in the workplace with the purpose of "[assuring] so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources" (29 USC § 651).	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
Title 29 Code of Federal Regulation (CFR) sections 1910.1 to 1910.1500 (Occupational Safety and Health Administration Safety and Health Regulations)	These sections define the procedures for promulgating regulations and conducting inspections to implement and enforce safety and health procedures to protect workers, particularly in the industrial sector.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.

State		
Title 8, California Code of Regulations (Cal Code Regs.) all applicable sections (Cal/OSHA regulations)	These sections require that all employers follow these regulations as they pertain to the work involved. This includes regulations pertaining to safety matters during construction, commissioning, and operations of power plants, as well as safety around electrical components, fire safety, and hazardous materials use, storage, and handling.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
Title 24 California Building Code, section 3(California Code of Regulations)	Consists of 11 parts containing the building design and construction requirements relating to fire and life safety and structural safety. The Building Standards Code includes the electrical, mechanical, energy, and fire codes applicable to the Project. Local planning/building and safety departments enforce the California Building Code.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.
California Fire Code, Part 9 of Title 24 of the California Code of Regulations	The Fire Code contains general provisions for fire safety.	**Consistent:** Decommissioning and demolition activities would comply with these requirements.

APPLICABLE CONDITIONS OF CERTIFICATION IN DECISION

The CEC staff has reviewed the existing conditions of certification in the Decision for the project and there are none that would apply during decommissioning and demolition.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

The project owner proposed the following COC"s during decommissioning and demolition to ensure that activities conform with applicable LORS.

D-WS-1: The project owner, or its demolition contractor, shall prepare or update the existing Health and Safety Plan elements (including the fire protection element) to reflect the activities expected during decommissioning and demolition.

Verification: At least thirty (30) days prior to the start of demolition, the project owner shall submit to the Compliance Project Manager (CPM) for review and approval a copy of the project Demolition Health and Safety Program, the Demolition Emergency Action Plan, and the Demolition Fire Prevention Plan to the San Bernadino County Fire Department (SBCFD) for review and comment. The project owner shall provide a letter with SBCFD's comments on the Demolition Health and Safety Program, Demolition Emergency Action Plan, and the Demolition Fire Prevention Plan to the CPM.

D-WS-2: The project owner shall ensure that all SEGS IX employees, contractors, and visitors that will be on-site during decommissioning and demolition receive safety training.

Verification: In the monthly compliance report to the CPM, the project owner shall provide copies of the training class sign-in sheets indicating the employees who were provided safety training during the month.

ANALYSIS

WORKER SAFETY

Industrial environments are potentially dangerous during the demolition of facilities. Workers involved in the proposed demolition of SEGS IX would be exposed to loud noises, moving equipment, trenches, and confined space ingress and egress problems. The workers may experience falls, trips, burns, lacerations, and numerous other injuries. They have the potential to be exposed to falling equipment, materials or structures, chemical spills, hazardous waste, fires, explosions, and electrical sparks and electrocution.

DEMOLITION SAFETY AND HEALTH PROGRAM

Construction workers at SEGS IX would be exposed to hazards typical of demolition of a power plant. During demolition one set of worker safety policies and procedures would be followed.

Construction Safety Orders (applicable to demolition) are published in Title 8 California Code of Regulations sections 1502, et seq. These requirements are promulgated by Cal/OSHA and would be applicable to the demolition phase of the project. The Demolition Safety and Health Program would include the following:

- Demolition Injury and Illness Prevention Program (8 Cal Code Regs. §1509)
- Demolition Fire Prevention Plan (8 Cal Code Regs. §1920)
- Demolition General Requirements (8 Cal Code Regs. §1920)
- Personal Protective Equipment Program (8 Cal Code Regs. §§1514-1522)
- Demolition and Emergency Action Program and Plan

- Demolition Fire Prevention Plan (8 Cal Code Regs 3221)

Additional programs under General Industry Safety Orders (8 Cal Code Regs. §§3200 to 6184), and Electrical Safety Orders (8 Cal Code Regs. §§2299 to 2974) would be established and implemented and would address many important worker safety and health issues. It is not staff's intent to list them all but some of the newer and revised Cal-OSHA regulations address such matters as excavation and trenching, employee exposure monitoring, hearing conservation, ergonomics, heat and cold stress monitoring and control, confined space entry, COVID-19 safety protocols, and Lock Out/Tag Out of dangerous operations and electrical circuits.

The project owner proposed condition, **D-WS-1**, would require the project owner to prepare or update the existing Health and Safety Plan elements to reflect the activities expected during decommissioning and demolition and to provide them to the CPM for approval. In addition, the proposed condition **D-WS-2** would ensure that all construction workers and visitors would undergo the required worker safety training. With the implementation of proposed conditions **D-WS-1** and **D-WS-2**, the demolition of the facility would not have a significant impact on worker health and safety and would comply with applicable LORS.

CONCLUSIONS AND RECOMMENDATIONS

The CEC staff recommends adoption of the decommissioning and demolition plan and concludes that with the implementation of proposed conditions **D-WS-1,** and **D-WS-2**, impacts on worker safety and fire protection would be less than significant and the project would comply with applicable LORS.

REFERENCES

CEC 1990 – California Energy Commission – SEGS IX Harper Dry Lake Final Decision February 14, 1990

SEGS 2022 – Solar Energy Generating Systems IX. (TN 242500). SEGS IX (89-AFC-01C) Facility Decommissioning Plan and Petition to Terminate License, dated March 30, 2022. Available online at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=89-AFC-01C

SEGS IX (89-AFC-01C)

Facility Decommissioning Plan and License Termination
ENVIRONMENTAL JUSTICE

Ellen LeFevre

INTRODUCTION

In this section, the CEC staff discuss the SEGS IX Decommissioning Plan (TN 242500) relating to the topic of **Environmental Justice**. The purpose of this analysis is to evaluate the impacts of decommissioning and demolition on the environmental justice (EJ) population living within a six-mile radius of the facility.

EXISTING SETTING AND ANALYSIS

CalEnviroScreen

Staff reviewed CalEnviroScreen 4.0 data to determine whether the United States census tract where the SEGS IX is located (6071011600) is identified as a disadvantaged community. This science-based mapping tool is used by the California Environmental Protection Agency (CalEPA) to identify disadvantaged communities based on geographic, socioeconomic, public health, and environmental hazard criteria pursuant to Health and Safety Code section 39711 as enacted by Senate Bill 535 (De León, Chapter 830, Statutes of 2012). The CalEnviroScreen 4.0 overall percentile score for this census tract is 56.86 and, thus, is not identified as a disadvantaged community[1].

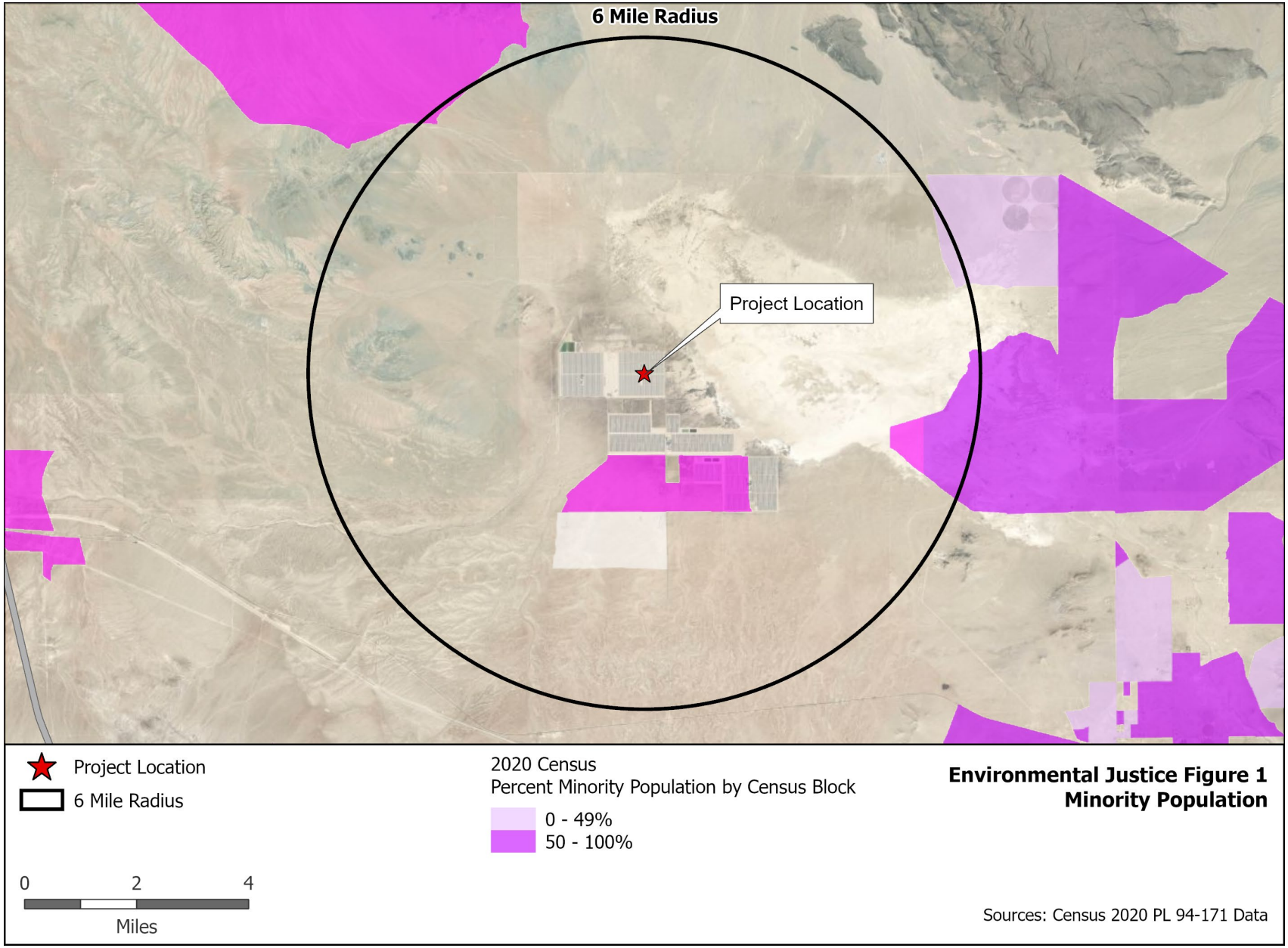
Environmental Justice

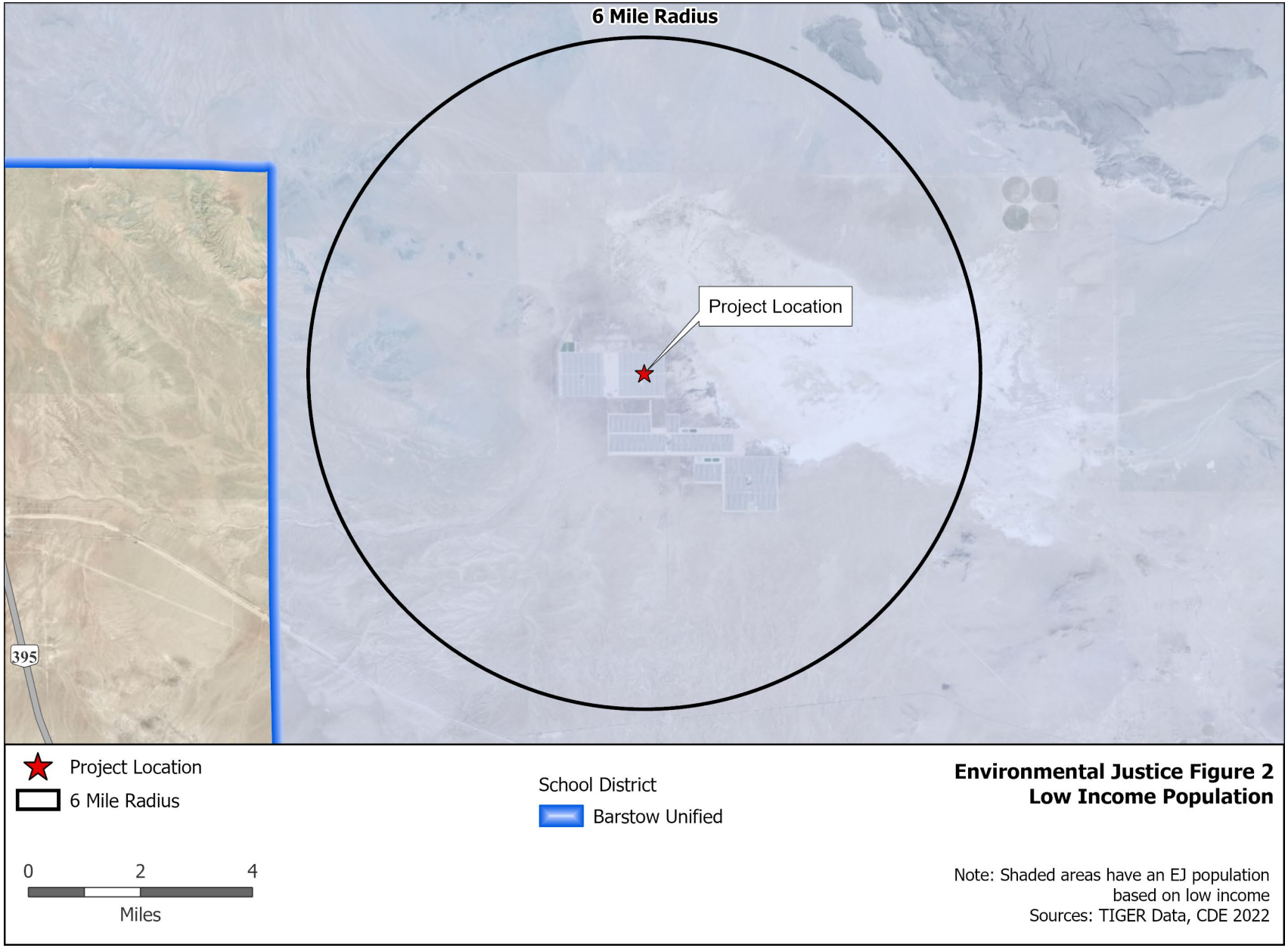
The CEC staff uses a six-mile radius around the facility, conservatively based on the parameters for dispersion modeling used in staff's air quality analysis, to obtain data to gain a better understanding of the demographic makeup of the communities potentially impacted. Air quality impacts are generally the type of project impacts that extend the furthest from a facility. Beyond a six-mile radius, air emissions have either settled out of the air column or mixed with surrounding air to the extent the potential impacts are less than significant. The area of potential impacts would not extend this far from the project site for most other technical areas included in staff's EJ analysis.

1 The four categories of geographic areas identified by CalEPA as disadvantaged are: 1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0, 2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores, 3) Census tracts identified in the 2017 DAC designation, regardless of their scores in CalEnviroScreen 4.0, and 4) Lands under the control of federally recognized Tribes. Source: CalEPA Final Designation of Disadvantaged Communities: May 2022 https://calepa.ca.gov/envjustice/ghginvest/

Environmental Justice Figure 1 shows 2020 census blocks in the six-mile radius of SEGS IX with a minority population greater than or equal to 50 percent. The population in these census blocks represents an EJ population based on race and ethnicity as defined in the United States Environmental Protection Agency's *Guidance on Considering Environmental Justice During the Development of Regulatory Actions.*

Based on California Department of Education data shown in **Environmental Justice Table 1**, the CEC staff concludes that the percentage of those living in the Barstow Unified School District (in a six-mile radius of the project site) and enrolled in the free or reduced-price meal program is comparatively larger than those in the reference geography, and thus are considered an EJ population based on low income as defined in *Guidance on Considering Environmental Justice During the Development of Regulatory Actions.* **Environmental Justice Figure 2** shows where the boundaries of the school district are in relation to the six-mile radius around the SEGS IX site.


6 Mile Radius
Project Location
Project Location
6 Mile Radius
0
2
4
Miles
2020 Census
Percent Minority Population by Census Block
0 - 49%
50 - 100%
Environmental Justice Figure 1
Minority Population
Sources: Census 2020 PL 94-171 Data


6 Mile Radius
Project Location
395
Project Location
6 Mile Radius
School District
Barstow Unified
0
2
4
Miles
Environmental Justice Figure 2
Low Income Population
Note: Shaded areas have an EJ population based on low income
Sources: TIGER Data, CDE 2022

Environmental Justice Table 1
Low Income Data within the Project Area

LAKE COUNTY SCHOOL DISTRICTS IN SIX-MILE RADIUS	Enrollment Used for Meals	Free or Reduced Price Meals	
Barstow Unified	6,401	4,889	76.4%
REFERENCE GEOGRAPHY			
San Bernardino County	398,648	268,979	67.2%
Source: CDE 2022			

The following technical areas (if affected) consider impacts to EJ populations: Air Quality, Cultural Resources (indigenous people), Hazardous Materials Management, Land Use, Noise, Public Health, Socioeconomics, Soil and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, Waste Management, and Worker Safety and Fire Protection.

For Cultural Resources (indigenous people), the CEC staff reviewed the ethnographic and historic literature to determine whether any EJ populations use or reside in the project area. No known hunting and gathering areas would be impacted by decommissioning, therefore Native Americans are not considered members of the EJ population in the project area.

CONCLUSIONS

As summarized in **Facility Decommissioning Table 1,** the CEC staff concludes that implementation of the SEGS IX Final Decommissioning Plan would not result in significant adverse environmental impacts, and would comply with all applicable and current LORS, with implementation of existing conditions of certification in the SEGS IX Decision and the additional proposed COCs, and thus impacts would be less than significant on the EJ population represented in **Environmental Justice Figure 1**, **Figure 2**, and **Table 1**.

REFERENCES

CDE 2022 – California Department of Education (CDE). DataQuest, Free or Reduced Price Meals, District level data for the year 2021-2022. Available online at: http://dq.cde.ca.gov/dataquest/

U.S. EPA 2015 – United States Environmental Protection Agency (U.S. EPA). *Guidance on Considering Environmental Justice During the Development of Regulatory Actions*, dated May 2015. Available online at: https://www.epa.gov/environmentaljustice/guidance-considering-environmental-justice-during-development-action