Appendix A

Initial Study and Notice of Preparation and Responses

Notice of Preparation

County of San Bernardino

NOTICE OF PREPARATION OF A DRAFT EIR AND SCOPING MEETING

Date: August 23, 2022

To: Responsible Agencies and Interested Parties

Subject: Notice of Preparation of a Draft Environmental Impact Report and Scoping Meeting

Pursuant to the California Environmental Quality Act (CEQA), the County of San Bernardino (County) must conduct a review of the environmental impacts of the proposed Sienna Solar and Storage Project (Project). Implementation of the Project will require discretionary approvals from state and local agencies, and therefore, the Project is subject to the environmental review requirements of CEQA. As the lead agency under CEQA, and due to the involvement of potentially significant impacts to the environment, the County is therefore issuing this Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Project.

Project Title: Sienna Solar and Storage Project

Project Applicant: 99MT 8ME, LLC

Assessor's Parcel Number(s): 0452-071-10, 11, 19, 20 and 25; 0452-062-21, 22, 23 and 24; 0452-112-17, 18, 19, 20, 24, and 25; 0452-113-17; 0452-121-12, 38, 39, 42, 48, and 52; 0452-361-46 and 47; 0452-371-01, and; 0452-391-08 and 09.

Project Description

99MT 8ME, LLC (Applicant) plans to construct and operate the Sienna Solar and Storage Project (Project), a utility scale, solar photovoltaic (PV) electricity generation facility that would produce up to 525 megawatts (MW) of solar power and include up to 525 MW of energy storage capacity rate in a battery energy storage system (BESS) within an approximately 1,854-acre Project site. The Project will be processed under one Conditional Use Permit (CUP). The Project consists of the installation of a PV solar facility, BESS, Project substation, operations and maintenance building(s), underground collection system, 230 kV gen-tie line (on- and off-site), and other ancillary facilities. The Project will interconnect at the Southern California Edison (SCE) Calcite Substation (currently pending final permits and construction) via a proposed overhead and/or underground 230-kV gen-tie line in addition to other ancillary facilities utilizing private and potentially public rights-of-way (ROW). The proposed Calcite Substation is located northwest of the Project area, within a 77-acre parcel (Assessor Parcel Number 0453-041-07) that occupies land both east and west of State Route (SR) 247 (Barstow Road). Approximately 39 miles of collector lines and gen-tie alternatives will be analyzed in the EIR, although not all routes will be developed.

Project Objectives

The following are the Project objectives:

- Use proven and established PV and energy storage technology that is efficient and requires low maintenance

- Assist California in meeting greenhouse gas emission reduction goals by 2030 as required by the California Global Warming Solutions Act (Assembly Bill 32), as amended by Senate Bill 32
- Support California's Renewables Portfolio Standard (RPS) Program consistent with the timeline established by Senate Bill 100, which requires that by December 31, 2030, 60 percent of all electricity sold in the State shall be generated from renewable energy sources
- To provide energy to the electric grid to meet increasing demand for in-state generation
- Interconnect directly to the SCE electrical transmission system
- Promote the County's role as the State's leading producer of renewable energy
- Utilize a location that is in close proximity to an existing SCE substation and powerlines

Project Site

The proposed Project is located on approximately 1,854-acres in the southwestern portion of the Mojave Desert and includes the Lucerne Dry Lake, in unincorporated San Bernardino County, California. The Project is predominately located east of SR 247 (Barstow Road), north of the unincorporated community of Lucerne Valley, with portions of the gen-tie alternative corridors that include possible connections along Haynes Road, Huff Road, and Northside Road to the east of Barstow Road. The site is generally located approximately 35 miles south of Barstow, 45 miles northwest of the town of Yucca Valley, 15 miles southeast of the town of Apple Valley, and 20 miles north of the City of Big Bear Lake.

Project Overview and Design

The Project involves the construction and operation of a utility scale, solar PV electricity generation facility that would produce up to 525 MW of solar power with an integrated 525 MW BESS. The Project would be fenced to prevent access by the public. Gates would be installed at the roads entering the Project site. Limiting access to the Project site would be necessary both to ensure the safety of the public and to protect the equipment from potential theft and vandalism. The Project consists of the following components:

Photovoltaic Panels/Solar Arrays**.** The proposed Project will use PV panels or modules (including but not limited to bi-facial or concentrated PV technology) on mounting frameworks to convert sunlight directly into electricity. Individual panels will be installed on either fixed-tilt or tracker mount systems (single- or dual-axis, using galvanized steel or aluminum). If the panels are configured for fixed tilt, they will be oriented toward the south. For tracking configurations, the panels will rotate to follow the sun over the course of the day. The solar panels will be consistent with panel dimensions that are widely used in commercial solar installations in California and will conform to County building code requirements.

Battery Energy Storage System**.** The Project may include one or more BESS', located at or near a substation/switchyard (onsite or shared) and/or at the inverter stations, or elsewhere onsite. Such large-scale BESSs would be up to 525 megawatt alternating current (MWac) in capacity and up to 45 acres in total area. BESS' consist of modular and scalable battery packs and battery control systems that conform to U.S. national safety standards. The BESS modules, which could include commercially available lithium, flow, or other batteries, typically consist of standard containers housed in pad- or post-mounted, stackable metal structures, but may also be housed in a dedicated building(s), in compliance with applicable regulations. The maximum height of a dedicated structure is not expected to exceed 45 feet. The actual dimensions and number of

energy storage modules and structures vary depending on the application, supplier, and configuration chosen, as well as on offtaker/power purchase agreement requirements and on County building standards. The Project may share a BESS with one or more nearby or future solar projects or may operate one or more standalone BESS facilities within the Project site.

Inverters**.** Direct current energy would be delivered from the panels via cable to inverter stations, generally located near the center of each block. Inverter stations convert the DC energy to AC energy which can be dispatched to the transmission system. Inverter stations are typically comprised of one or more inverter modules with a rated power of up to approximately 5-MW each, a unit transformer, and voltage switch gear. The unit transformer and voltage switch gear are housed in steel enclosures, while the inverter module(s) are housed in cabinets. Depending on the model ultimately selected, the inverter station may lie within an enclosed or canopied metal structure, typically on a skid or concrete mounted pad. The final location(s) of each component would be determined before the issuance of building permits.

Substations**.** Output from inverter stations would be transferred via electrical conduits and electrical conductor wires to one or more Project substations or switchyards (collectively referred to as "substations" herein), and then onward via "gen-tie line(s)." The Project would have its own dedicated substation equipment located within the Project area. Dedicated equipment may incorporate several components, including auxiliary power transformers, distribution cabinets, revenue metering systems, a microwave transmission tower, and voltage switch gear. Each substation would occupy an area of up to approximately five (5) acres, secured separately by a chain-link fence. The final location(s) of each component would be determined before the issuance of building permits.

Substations typically include a small control building (roughly 500 square feet) standing approximately 10 feet in height. The building is typically either prefabricated concrete or steel housing with rooms for the voltage switch gear and the metering equipment, a room for the station supply transformer, and a separate control technology room in which the main computer, the intrusion detection system, and the main distribution equipment are housed.

Gen-Tie Line. The Project will interconnect at the SCE Calcite Substation (currently pending final permits and construction) via a proposed overhead and/or underground 230-kV gen-tie line in addition to other ancillary facilities utilizing private and potentially public rights-of-way. The proposed Calcite Substation is located northwest of the Project area, within a 77-acre parcel (Assessor Parcel Number 045-304-107) that occupies land both east and west of SR 247 (Barstow Road). The substation would be designed, constructed, owned, operated, and maintained by SCE and subject to California Public Utilities Commission (CPUC) regulations. Approximately 39 miles of collector lines and gen-tie alternatives will be analyzed in the EIR, although not all routes will be developed.

Operations and Maintenance Building. The Project may include an operations and maintenance (O&M) building, typically 40 feet x 80 feet in size, with designated parking. If constructed, the O&M building would likely be steel framed, with metal siding and roof panels. An O&M building may include the following: office, repair building/parts storage, control room, restroom, and septic tank and leach field.

Site Security and Fencing. The Project area would be enclosed within a chain link fence measuring up to eight feet in height from finished grade. An intrusion alarm system comprised of sensor cables integrated into the perimeter fence, intrusion detection cabinets placed approximately every 1,500 feet along the perimeter fence, and an intrusions control unit, located

either in the substation control room or at the O&M building, or similar technology, may be installed. Additionally, the Project may include additional security measures including, but not limited to, warning reflective signage, controlled access points, security camera systems, and security guard vehicle patrols to deter trespassing and/or unauthorized activities that could interfere with operation of the Project.

Controlled access gates would be maintained at the main entrances to the Project Site. Project area access would be provided to offsite emergency response teams that respond in the event of an after-hours emergency. Enclosure gates would be manually operated with a code or key provided in an identified key box location.

Construction

The construction period for the Project is anticipated to occur over 12 to 24 months, utilizing an estimated (up to) 500 workers per day (during peak construction periods). Heavy construction is expected to occur between 6:00 AM and 5:00 PM, Monday through Saturday. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, seven days per week. Any construction work performed outside of the normal work schedule would be coordinated with the appropriate agencies and would conform to the County Noise Ordinance.

Operations

Once constructed, maintenance of the solar facility would generally be limited to the following: Cleaning of PV panels, monitoring electricity generation, providing site security, facility maintenance - replacing or repairing inverters, wiring, electrical components, and PV modules. It is expected that the Project would require an operational staff of up to 15 full-time employees. The solar farm would operate seven days a week, 24 hours a day. Maintenance activities may occur seven days a week, 24 hours a day to ensure PV panel output when solar energy is available.

Decommissioning

At the end of the Project's operational term (anticipated to be approximately 40 years), the Project Applicant may choose to update site technology and recommission, or decommission the site and remove the systems and components. All decommissioning and restoration activities would adhere to the requirements of the appropriate governing authorities and be in accordance with all applicable federal, State, and County regulations. The Applicant will work with the County to ensure decommissioning of the Project after its productive lifetime complies with all applicable local, state, and federal requirements best management practices (BMPs).

EIR SCOPE

As set forth in the California Public Resources Code Section et seq., and the CEQA Guidelines, codified in the California Code of Regulations, Title 14, Section 15000 et seq, the County has determined, based on substantial evidence and in light of the whole record before the lead agency, that the Project may have a significant effect on the environment and that an Environmental Impact Report shall be prepared for the Project. (PRC Sections 21080(d) and (e); 21802.2(d); 21083(b); and CEQA Guidelines Sections 15060(d) and 15081).

The lead agency has initially identified the following environmental considerations as potentially significant effects of the Project:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise and Vibration
- Transportation/Circulation
- Tribal Cultural Resources
- Utilities and Service Systems

The EIR will assess the effects of the Project on the environment, identify potentially significant impacts, identify feasible mitigation measures to reduce or eliminate potentially significant environmental impacts, and discuss potentially feasible alternatives to the Project that may accomplish basic Project objectives while lessening or eliminating any potentially significant Project impacts.

RESPONSIBLE AGENCIES

A responsible agency means a public agency other than the lead agency, which has permitting authority or approval power over some aspect of the overall Project. This Notice provides a description of the Project and solicits comments from responsible agencies, trustee agencies, federal, State and local agencies, and other interested parties on the scope and content of the environmental document to be prepared to analyze the environmental impacts of the Project.

Comments received in response to this Notice will be reviewed and considered by the lead agency in determining the scope of the EIR. Due to time limits, as defined by CEQA, your response should be sent at the earliest possible date, but no later than thirty (30) days after publication of this notice. We need to know the views of your agency as to the scope and content of the environmental information that is germane to you or to your agency's statutory responsibilities in connection with the Project. Your agency may need to use the EIR prepared by our agency when considering your permit or other approval for the Project.

OPPORTUNITY FOR PUBLIC REVIEW AND COMMENT

The NOP is available for public review on the County's website at:
https://lus.sbcounty.gov/planning-home/environmental/desert-region/

Additionally, a copy of the NOP is available for public review at the following locations:

San Bernardino County High Desert Government Center
15900 Smoke Tree Street, Suite 1331
Hesperia, CA 92345

San Bernardino County Government Center
385 North Arrowhead Avenue, Second Floor
San Bernardino, CA 92415

San Bernardino County Library Barstow Branch
304 E. Buena Vista Street
Barstow, CA 92311

We would like to hear what you think. Comments and/or questions should be directed to Jim Morrissey, Planner, via U.S. mail or email **by no later than 5:00 p.m. on September 22, 2022**.

County of San Bernardino, Land Use Services Department
Attn: Jim Morrissey, Planner
385 North Arrowhead Avenue, First Floor
San Bernardino, CA 92415
Email: Jim.Morrissey@lus.sbcounty.gov

Please include name, phone number, and address of your agency's contact person in your response.

PUBLIC SCOPING MEETING

The CEQA process encourages comments and questions from the public throughout the planning process. Consistent with Section 21083.9 of the CEQA Statute, a Public Scoping Meeting will be held to solicit public comments on the scope and content of the EIR. A virtual scoping meeting will be held for this Project. The date and meeting details are as follows:

Date and Time: September 14, 2022 at 6:00 P.M.
Place: Via Zoom:
https://hdrinc.zoom.us/j/99875981798?pwd=VHJtU2J4MFBzVjR4TUR2RVI2VTV3Zz09

The zoom meeting may also be accessed through the zoom website by using the following: **Webinar ID: 998 7598 1798**

If you require additional information please contact Jim Morrissey, Planner, at (909) 387- 4234.

Figure 1. Regional Vicinity Map

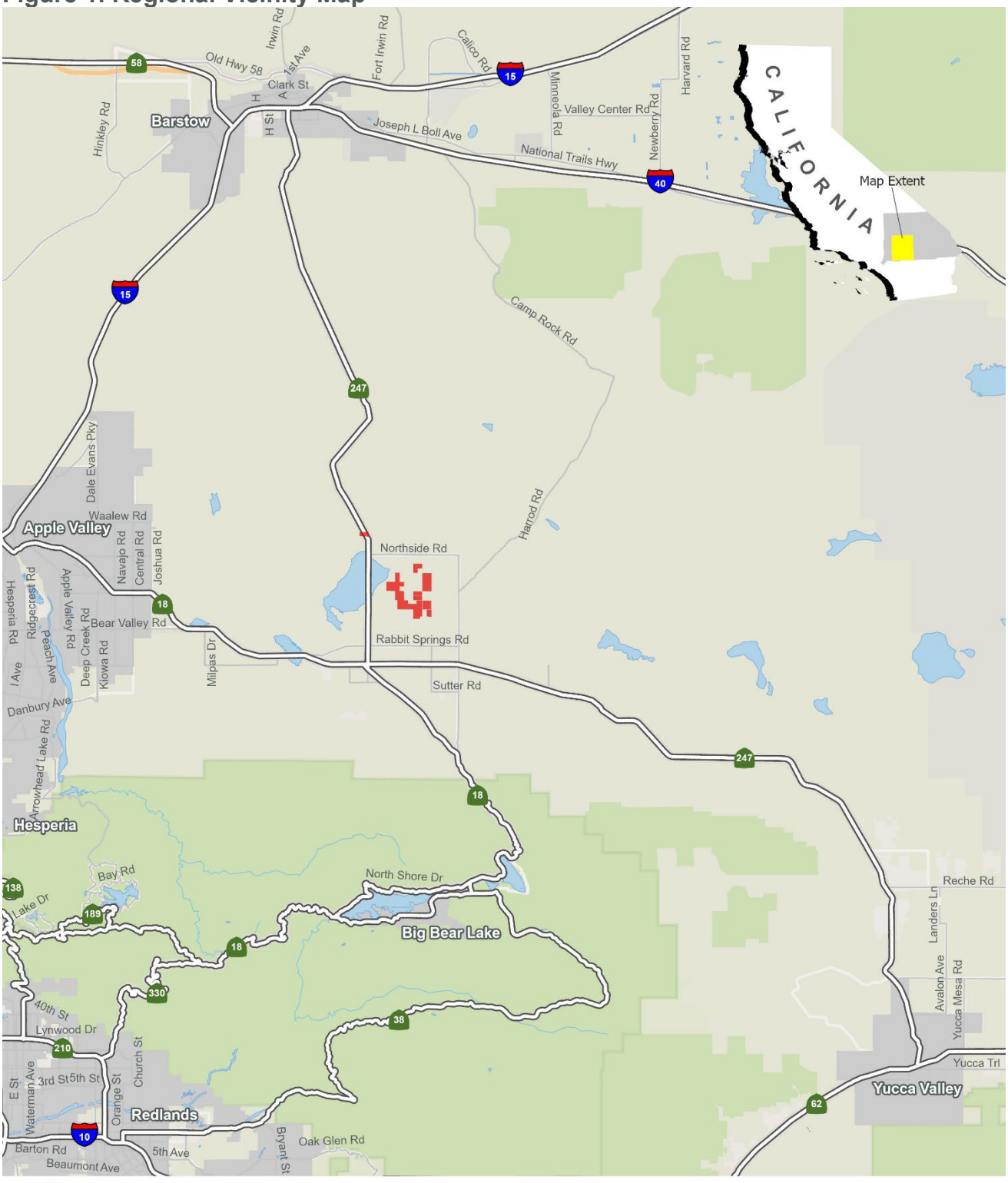
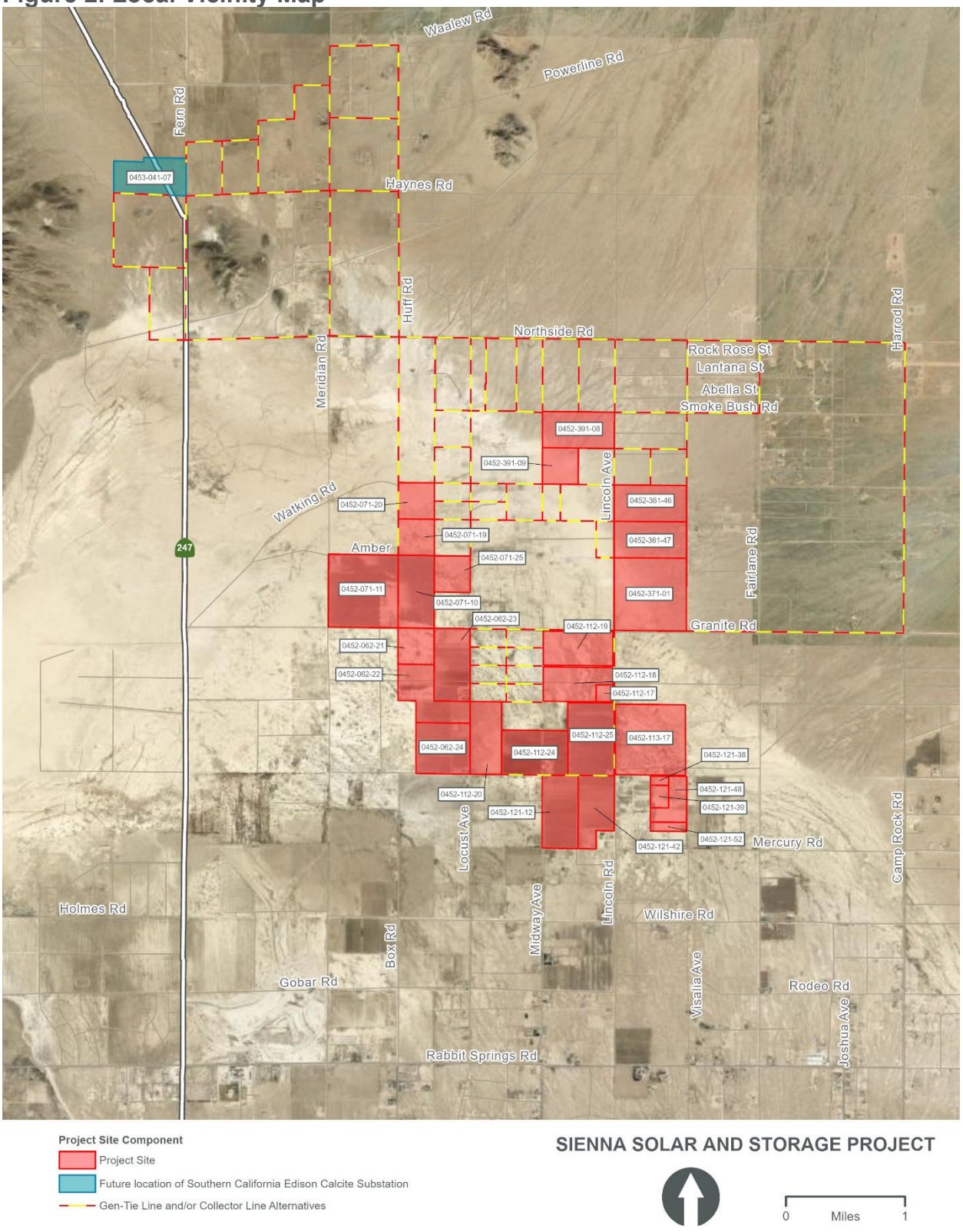


Figure 2. Local Vicinity Map



Comment Letters Received on Notice of Preparation

DESERT TORTOISE COUNCIL
4654 East Avenue S #257B
Palmdale, California 93552
www.deserttortoise.org
eac@deserttortoise.org

Via email only

14 September 2022

Attn: Mr. Jim Morrissey
County of San Bernardino, Land Use Services Department
Attn: Jim Morrissey, Planner
385 North Arrowhead Avenue, First Floor
San Bernardino, CA 92415
Email: Jim.Morrissey@lus.sbcounty.gov

RE: Notice of Preparation of a Draft Environmental Impact Report for Sienna Solar and Storage Project

Dear Mr. Morrissey,

The Desert Tortoise Council (Council) is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

As of June 2022, our mailing address has changed to:

> Desert Tortoise Council
> 3807 Sierra Highway #6-4514
> Acton, CA 93510

Our email address has not changed. Both addresses are provided above in our letterhead for your use when providing future correspondence to us.

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats likely occupied by Mojave desert tortoise (*Gopherus agassizii*) (synonymous with Agassiz's desert tortoise), our comments pertain to enhancing protection of this species during activities authorized by San Bernardino Land Use Services Department (herein "County"). Please accept, carefully review, and include in the relevant project file the Council's following comments and attachments for the proposed project.

The Mojave desert tortoise is among the top 50 species on the list of the world's most endangered tortoises and freshwater turtles. The International Union for Conservation of Nature's (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers the Mojave desert tortoise to be Critically Endangered (Berry et al. 2021), as it is a "species that possess an extremely high risk of extinction as a result of rapid population declines of 80 to more than 90 percent over the previous 10 years (or three generations), population size fewer than 50 individuals, other factors." It is one of three turtle and tortoise species in the United States to be critically endangered. This status, in part, prompted the Council to join Defenders of Wildlife and Desert Tortoise Preserve Committee (Desert Tortoise Council 2020) to petition the California Fish and Game Commission in March 2020 to elevate the listing of the Mojave desert tortoise from threatened to endangered in California.

Project Description

The following project description is taken from the Notice of Preparation (NoP) dated 23 August 2022: "99MT 8ME, LLC (Applicant) plans to construct and operate the Sienna Solar and Storage Project (Project), a utility scale, solar photovoltaic (PV) electricity generation facility that would produce up to 525 megawatts (MW) of solar power and include up to 525 MW of energy storage capacity rate in a battery energy storage system (BESS) within an approximately 1,854-acre Project site. The Project will be processed under one Conditional Use Permit (CUP). The Project consists of the installation of a PV solar facility, BESS, Project substation, operations and maintenance building(s), underground collection system, 230 kV gen-tie line (on- and off-site), and other ancillary facilities. The Project will interconnect at the Southern California Edison (SCE) Calcite Substation (currently pending final permits and construction) via a proposed overhead and/or underground 230-kV gen-tie line in addition to other ancillary facilities utilizing private and potentially public rights-of-way (ROW). The proposed Calcite Substation is located northwest of the Project area, within a 77-acre parcel (Assessor Parcel Number 0453-041-07) that occupies land both east and west of State Route (SR) 247 (Barstow Road). Approximately 39 miles of collector lines and gen-tie alternatives will be analyzed in the EIR, although not all routes will be developed."

"The proposed Project is located on approximately 1,854 acres in the southwestern portion of the Mojave Desert and includes the Lucerne Dry Lake, in unincorporated San Bernardino County, California. The Project is predominately located east of SR 247 (Barstow Road), north of the unincorporated community of Lucerne Valley, with portions of the gen-tie alternative corridors that include possible connections along Haynes Road, Huff Road, and Northside Road to the east of Barstow Road. The site is generally located approximately 35 miles south of Barstow, 45 miles northwest of the town of Yucca Valley, 15 miles southeast of the town of Apple Valley, and 20 miles north of the City of Big Bear Lake."

Scoping Comments

The purpose of scoping is to allow the public to participate in an "early and open process for determining the scope of issues to be addressed, and for identifying the significant issues related to a proposed action" [40 Code of Federal Regulations (CFR) 1501.7]. The Draft Environmental Impact Report (DEIR) should discuss how this proposed project fits within the management structure of current land management plans for the area [e.g., California Desert Conservation Area Plan (CDCA Plan) (BLM 1980 as amended), Desert Renewable Energy Conservation Plan (DRECP) (BLM 2015, 2016)]. Even though these are management plans that directly affect public lands managed by the Bureau of Land Management (BLM), they are still applicable to development on private lands relative to indirect and cumulative effects. It should provide maps of critical habitat for the Mojave desert tortoise (USFWS 1994a), Areas of Critical Environmental Concern (ACECs), and other areas identified for special management by BLM [e.g., National Conservation Lands (NCLs)]; U.S. Fish and Wildlife Service (USFWS) (e.g., linkage habitats between desert tortoise populations); other federal, state, and local agencies; and tribal lands.

Proposed Action and Alternatives Considered

We fully expect that the County will comply with all applicable statutes, regulations, and other requirements as they pertain to this project. The County should demonstrate in the DEIR that the proposed project meets all these requirements with respect to the tortoise, that:

- The proposed project will be in conformance with decisions in current land use plan(s) with respect to sustained yield;
- the proposed project will be consistent with priority conservation, restoration, and/or adaptation objectives in the best available landscape-scale information (e.g., for tortoise population connectivity, etc.);
- the applicant has coordinated with governments and agencies, including consideration of consistency with officially adopted plans and policies (e.g., recovery plans);
- the proposed project is in an area with low or comparatively low resource conflicts and where conflicts can be resolved;
- the proposed project will be located in, or adjacent to, previously contaminated or disturbed lands;
- the proposed project will minimize adverse impacts on important fish and wildlife habitats and migration/movement corridors including the desert tortoise;
- the proposed project will minimize impacts on lands with wilderness characteristics and the values associated with these lands;
- the proposed project will not adversely affect lands donated or acquired for conservation purposes, or mitigation lands identified in previously approved projects such as translocation areas for desert tortoise;
- significant cumulative impacts on resources of concern should not occur as a result of the proposed project (i.e., exceedance of an established threshold such population viability for the tortoise and connectivity of tortoise populations among recovery units); and,
- the County's analysis will use current data on the tortoise for the project area, population, Western Mojave Recovery Unit, and range wide, as population numbers and densities have substantially declined in most recovery units.

Please be sure the following two standards are met:

- Mitigation should improve conditions within the connectivity areas, and if these options do not exist, mitigation may be applied toward the nearest tortoise conservation area (e.g., an ACEC for which tortoise had been identified in the Relevant and Important Criteria or critical habitat); and
- a plan included in the DEIR that would effectively monitor desert tortoise impacts, including verification that desert tortoise connectivity corridors are functional. If required, Federal Endangered Species Act (FESA) consultation should further define this monitoring plan.

Regarding the first concern, we believe that a multiagency approach is best to ensure the County is meeting its obligations, soliciting review and input from pertinent federal and state resource agencies, Tribal governments/agencies, and non-governmental organizations (NGOs). Mitigation of impacts should include, in priority order, avoidance, minimization and compensation for unavoidable impacts. Mitigation should at a minimum offset all direct, indirect, and cumulative impacts, especially given the status and trend of the tortoise (please see *Affected Environment - Status of the Populations of the Mojave Desert Tortoise* below). The County should ensure that neither FESA nor the California Endangered Species Act (CESA) are violated by development of this project.

Mitigation should be applied only in areas where the lands are effectively managed for the benefit of the tortoise for both the short-term and long-term. As currently managed, BLM ACECs in the California Desert Conservation Area are not meeting this criterion. Consequently, mitigation should be implemented on lands with a durable conservation designation, or on privately owned lands with a conservation easement or other legal instrument that ensures conservation in perpetuity. Please see *Mitigation Plans* below for additional concerns and requested requirements.

Regarding the second concern, a monitoring plan should (1) be scientifically and statistically credible; (2) be implementable; and (3) require the project proponent to implement adaptive management to correct land management practices if the mitigation is not accomplishing its intended purposes.

The Council supports alternatives to reduce the need for additional solar energy projects in relatively undisturbed habitats in the Mojave Desert. For example, the City of Los Angeles has implemented a rooftop solar Feed-in Tariff (FiT) program, the largest of its kind in America. The FiT program enables the owners of large buildings to install solar panels on their roofs, and sell the power they generate back to utilities for distribution into the power grid.

We request that the County include an urban solar alternative in the DEIR. Under this alternative, owners of large buildings or parking areas would grant the project proponent permission to install solar panels on their roofs and cover parking areas, and sell the power they generate back to utilities for distribution into the power grid.

This approach puts the generation of electricity where the demand is greatest, in populated areas. It may also reduce transmission costs, greenhouse gas emissions from constructing energy projects far from the sources of power demand and materials for construction, the number of affected resources in the desert that must be analyzed under the California Environmental Quality Act (CEQA), and mitigation costs for direct, indirect, and cumulative impacts; monitoring and adaptive management costs; and habitat restoration costs following decommissioning. The DEIR should include an analysis of where the energy generated by this project would be sent and the needs for energy in those targeted areas that may be satisfied by urban solar. We request that at least one viable alternative be analyzed in the DEIR where electricity generation via solar energy is located much closer to the areas where the energy will be used, including generation in urban/suburban areas.

In addition, the County should include another viable alternative of locating solar projects on bladed or highly degraded tracts of land (e.g., abandoned agricultural fields). Such an alternative would not result in the destruction of desert habitats and mitigation for the lost functions and values of these habitats. These losses and mitigation are costly from an economic, environmental, and social perspective. We cannot tell from the Figure 1 and particularly Figure 2 in the NoP how much of the land may be agricultural versus dry lake bed, so these areas and native desert scrub communities should be mapped in the DEIR.

The latter two alternatives are important to consider to minimize or avoid the loss of vegetation that sequesters carbon. Studies around the world have shown that desert ecosystems can act as important carbon sinks. For example, the California deserts account for nearly 10 percent of the state's carbon sequestration; below ground in soil and root systems, and above ground in biomass. Protecting this biome can contribute to securing carbon stores in the state (MDLT 2021). Given the current climate change conditions, there is an increasing need for carbon sequestration. Because vascular plants are a primary user of carbon and the proposed Project would result in the loss/degradation of thousands of acres of plants and their ability to sequester carbon for decades or longer unless successful measures are implemented to restore the same biomass of native vegetation as it is being destroyed, it is imperative that proposed project not result in the loss of vegetation.

The DEIR should consider the monitoring results of recently developed solar projects where soils have been bladed versus those facilities where the vegetation has been mowed or crushed and allowed to revegetate the area. In the latter case, it may be appropriate to allow tortoises to enter the facilities and re-establish residency (i.e., repatriate) under the solar panels as vegetation recolonizes the area. This could be an *option* for the currently described project alternative. It should be designed/implemented as a scientific experiment to add to the limited data on this approach to determine the extent of effects on Mojave desert tortoise populations and movements/connectivity between populations, which is an important issue for this species, particularly over the long-term (see *Desert Tortoise Habitat Linkages/Connectivity among Populations and Recovery Units* below). Long-term monitoring for the life of the project would need to be included to accurately evaluate the effectiveness of this strategy.

Affected Environment

Status of the Population of the Mojave Desert Tortoise: The Council provides the following information for the County so that these or similar data may be included in the DEIR. The Council believes that BLM's failure to implement recovery actions for the Mojave desert tortoise as given in the recovery plan (both USFWS 1994b and 2011) has contributed to tortoise declines between 2004 to 2014 (Table 1; USFWS 2015). There are 17 populations of Mojave desert tortoise described below that occur in Critical Habitat Units (CHUs) and Tortoise Conservation Areas (TCAs); 14 are on lands managed by the BLM; 8 of these are in the CDCA. Again, although this is a project on private lands, it has the potential to directly and indirectly affect public lands managed by the BLM, which should be addressed in the DEIR.

Table 1. Summary of 10-year trend data for 5 Recovery Units and 17 CHUs/TCAs for Mojave desert tortoise. The table includes the area of each Recovery Unit and CHU/TCA, percent of total habitat for each Recovery Unit and CHU/TCA, density (number of breeding adults/km^2 and standard errors = SE), and the percent change in population density between 2004 and 2014. Populations below the viable level of 3.9 breeding individuals/km^2 (10 breeding individuals per mi^2) (assumes a 1:1 sex ratio) and showing a decline from 2004 to 2014 are in red.

Recovery Unit: Designated Critical Habitat Unit/Tortoise Conservation Area	Surveyed area (km^2)	% of total habitat area in Recovery Unit & CHU/TCA	2014 density/km^2 (SE)	% 10-year change (2004–2014)
Western Mojave, CA	**6,294**	**24.51**	**2.8 (1.0)**	**–50.7 decline**
Fremont-Kramer	2,347	9.14	2.6 (1.0)	–50.6 decline
Ord-Rodman	852	3.32	3.6 (1.4)	–56.5 decline
Superior-Cronese	3,094	12.05	2.4 (0.9)	–61.5 decline
Colorado Desert, CA	**11,663**	**45.42**	**4.0 (1.4)**	**–36.25 decline**
Chocolate Mtn AGR, CA	713	2.78	7.2 (2.8)	–29.77 decline
Chuckwalla, CA	2,818	10.97	3.3 (1.3)	–37.43 decline
Chemehuevi, CA	3,763	14.65	2.8 (1.1)	–64.70 decline
Fenner, CA	1,782	6.94	4.8 (1.9)	–52.86 decline
Joshua Tree, CA	1,152	4.49	3.7 (1.5)	+178.62 increase
Pinto Mtn, CA	508	1.98	2.4 (1.0)	–60.30 decline
Piute Valley, NV	927	3.61	5.3 (2.1)	+162.36 increase
Northeastern Mojave	**4,160**	**16.2**	**4.5 (1.9)**	**+325.62 increase**
Beaver Dam Slope, NV, UT, AZ	750	2.92	6.2 (2.4)	+370.33 increase
Coyote Spring, NV	960	3.74	4.0 (1.6)	+ 265.06 increase
Gold Butte, NV & AZ	1,607	6.26	2.7 (1.0)	+ 384.37 increase
Mormon Mesa, NV	844	3.29	6.4 (2.5)	+ 217.80 increase
Eastern Mojave, NV & CA	**3,446**	**13.42**	**1.9 (0.7)**	**–67.26 decline**
El Dorado Valley, NV	999	3.89	1.5 (0.6)	–61.14 decline
Ivanpah Valley, CA	2,447	9.53	2.3 (0.9)	–56.05 decline
Upper Virgin River	**115**	**0.45**	**15.3 (6.0)**	**–26.57 decline**
Red Cliffs Desert	115	0.45	15.3 (6.0)	–26.57 decline
Range-wide Area of CHUs - TCAs/Range-wide Change in Population Status	**25,678**	**100.00**		**–32.18 decline**

Table 2. Estimated change in abundance of adult Mojave desert tortoises in each recovery unit between 2004 and 2014 (Allison and McLuckie 2018). Decreases in abundance are in red.

Recovery Unit	Modeled Habitat (km^2)	2004 Abundance	2014 Abundance	Change in Abundance	Percent Change in Abundance
Western Mojave	23,139	131,540	64,871	-66,668	-51%
Colorado Desert	18,024	103,675	66,097	-37,578	-36%
Northeastern Mojave	10,664	12,610	46,701	34,091	270%
Eastern Mojave	16,061	75,342	24,664	-50,679	-67%
Upper Virgin River	613	13,226	10,010	-3,216	-24%
Total	**68,501**	**336,393**	**212,343**	**-124,050**	**-37%**

Important points from these tables include the following:

Change in Status for the Mojave Desert Tortoise Range-wide
● Ten of 17 populations of the Mojave desert tortoise declined from 2004 to 2014.

● Eleven of 17 populations of the Mojave desert tortoise are no longer viable. These 11 populations represent 89.7 percent of the range-wide habitat in CHUs/TCAs.

Change is Status for the Eastern Mojave Recovery Unit – Nevada and California
● This recovery unit had a 67 percent decline in tortoise density from 2004 to 2014, the largest decline of the five recovery units for the tortoise.

● Tortoises in this recovery unit have densities that are below viability.

Change in Status for the El Dorado Valley and Ivanpah Valley Tortoise Populations in the Eastern Mojave Recovery Unit.
● Both populations in this recovery unit experienced declines in densities of 61 percent and 56 percent, respectively from 2004 to 2014. In addition, there was a 67 percent decline in tortoise abundance.

● Both populations have densities less than needed for population viability.

Change in Status for the Mojave Desert Tortoise in California
● Eight of 10 populations of the Mojave desert tortoise in California declined from 29 to 64 percent from 2004 to 2014 with implementation of tortoise conservation measures in the Northern and Eastern Colorado Desert (NECO), Northern and Eastern Mojave Desert (NEMO), and Western Mojave Desert (WEMO) Plans.

● Eight of 10 populations of the Mojave desert tortoise in California are no longer viable. These eight populations represent 87.45 percent of the habitat in California that is in CHU/TCAs.

● The two viable populations of the Mojave desert tortoise in California are declining. If their rates of decline from 2004 to 2014 continue, these two populations will no longer be viable in about 2020 and 2031.

Change in Status for the Mojave Desert Tortoise on BLM Land in California
● Eight of eight populations of Mojave desert tortoise on lands managed by the BLM in California declined from 2004 to 2014.

● Seven of eight populations of Mojave desert tortoise on lands managed by the BLM in California are no longer viable.

Change in Status for Mojave Desert Tortoise Populations in California that Are Moving toward Meeting Recovery Criteria
● The only population of Mojave desert tortoise in California that is not declining is on land managed by the National Park Service, which has increased 178 percent in 10 years.

The Endangered Mojave Desert Tortoise: The Council believes that the Mojave desert tortoise meets the definition of an endangered species. In the FESA, Congress defined an "endangered species" as "any species which is in danger of extinction throughout all or a significant portion of its range…" In the CESA, the California legislature defined an "endangered species" as a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant, which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes (California Fish and Game Code § 2062). Because most of the populations of the Mojave desert tortoise were non-viable in 2014, most are declining, and the threats to the Mojave desert tortoise are numerous and have not been substantially reduced throughout the species' range, the Council believes the Mojave desert tortoise should be designated as an endangered species by the USFWS and California Department of Fish and Wildlife (CDFW).

Standardized Surveys – Desert Tortoise and Other Species

For the DEIR to fully analyze the effects and identify potentially significant impacts, the following surveys must be performed to determine the extent of rare plant and animal populations occurring within areas to be directly and indirectly impacted.

Prior to conducting surveys, a knowledgeable biologist should perform a records search of the California Natural Diversity Data Base (CNDDB; CDFW 2022) for rare plant and animal species reported from the region. The results of the CNDDB review would be reported in the DEIR with an indication of suitable and occupied habitats for all rare species reported from the region based on performing the species-specific surveys described below.

CDFG (2010) lists hundreds of plant communities occurring in California, including those that are considered Communities of Highest Inventory Priority, or "CHIPs." Biologists completing surveys on behalf of the project proponent should document such communities where they occur. and indicate how impacts to them will be minimized.

The project proponent should fund focused surveys for all rare plant and animal species reported from the vicinity of the proposed project. Results of the surveys will determine appropriate permits from CDFW and USFWS and associated avoidance, minimization, and mitigation measures. Focused plant and animal surveys should be conducted by knowledgeable biologists for respective taxa (e.g., rare plant surveys should be performed by botanists), and to assess the likelihood of occurrence for each rare species or resource (e.g., plant community) that has been reported from

the immediate region. Focused plant surveys should occur only if there has been sufficient winter rainfall to promote germination of annual plants in the spring. Alternatively, the environmental documents may assess the likelihood of occurrence with a commitment by the proponents to perform subsequent focused plant surveys prior to ground disturbance, assuming conditions are favorable for germination.

Special Status Plants: There may be special status plant species found in/near the project area. Species or their habitats known to occur in/near the project area should be sought during field surveys and their presence/absence discussed in the DEIR. Surveys should be completed at the appropriate time of year by qualified botanists using the latest acceptable methodologies, which are identified in CDFG (2009). The methods used to survey for special status plant species, the results, and the mitigation/monitoring/adaptive management that will be implemented to avoid or otherwise mitigate adverse effects to these species and their habitats should be included in the DEIR.

At the County level, the San Bernardino County Development Code was revised and adopted on 12 April 2007. Chapter 88.01 Plant Protection and Management, Section 88.01.020 states, "The provisions of this Chapter apply to the removal and relocation of regulated trees or plants and to any encroachment (for example, grading) within the protected zone of a regulated tree or plant on all private land within the unincorporated areas of the County and on public lands owned by the County, unless otherwise specified..."

Section 88.01.060 Desert Native Plant Protection states, "This Section provides regulations for the removal or harvesting of specified desert native plants in order to preserve and protect the plants and to provide for the conservation and wise use of desert resources…"

Section 88.01.060(c) Regulated Desert Native Plants states, "The following desert native plants or any part of them, except the fruit, shall not be removed except under a Tree or Plant Removal Permit in compliance within Section 88.01.050 (Tree or Plant Removal Permits):

(1) The following desert native plants with stems two inches or greater in diameter or six feet or greater in height:
    (A) *Dalea spinosa* (smoke tree).
    (B) All species of the genus *Prosopis* (mesquites).
(2) All species of the family *Agavaceae* (century plants, nolinas, yuccas).
(3) Creosote Rings, 10 feet or greater in diameter.
(4) All Joshua trees.
(5) Any part of the following species, whether living or dead:
    (A) *Olneya tesota* (desert ironwood).
    (B) All species of the genus *Prosopis* (mesquites).
    (C) All species of the genus *Cercidium* (palo verdes)."

At the State level, the 1998 Food and Agricultural Code, Division 23: California Desert Native Plants, Chapter 3: Regulated Native Plants Act, Section 80073 states: The following native plants, or any parts thereof, may not be harvested except under a permit issued by the commissioner or the sheriff of the county in which the native plants are growing:

(a) All species of the family Agavaceae (century plants, nolinas, yuccas).

(b) All species of the family Cactaceae (cacti), except for the plants listed in subdivisions (b) and (c) of Section 80072 (i.e., saguaro and barrel cacti), which may be harvested under a permit obtained pursuant to that section.

(c) All species of the family Fouquieriaceae (ocotillo, candlewood).

(d) All species of the genus *Prosopis* (mesquites).

(e) All species of the genus *Cercidium* (palo verdes).

(f) *Senegalia (Acacia) greggii* (catclaw acacia).

(g) *Atriplex hymenelytra* (desert holly).

(h) *Dalea (Psorothamnus) spinosa* (smoke tree).

(i) *Olneya tesota* (desert ironwood), including both dead and live desert ironwood.

As such, the plant species listed above should be sought and mapped as baseline information to inform the County of pertinent protection measures.

Specialized Reptile Surveys: If there are any loose, shifting sands within/near the impact areas of the panels, along the gen-tie lines, or access routes, focused surveys for Mojave fringe-toed lizards (*Uma scoparia*) should be performed (University of California, Riverside 2005, 2007).

Migratory Birds/Eagles: The County should ensure that all actions it authorizes are implemented in compliance with the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and associated regulations, executive orders, and policies (e.g., Driscoll 2010, Pagel et al. 2010) to avoid mortality or injury to migratory birds and harassment of eagles.

Burrowing owl: Surveys for western burrowing owl (*Athene cunicularia*) should be performed implementing available methods (CDFG 2012). In addition to the project footprint, the protocol requires that peripheral transects be surveyed at 30-, 60-, 90-, 120-, and 150-meter intervals in all suitable habitats adjacent to the subject property to determine the potential indirect impacts of the project on this species. If burrowing owl sign is found, CDFG (2012) describes appropriate minimization and mitigation measures that would be required. If burrowing owl sign is found, the County and the project proponent should develop a science-based mitigation/monitoring/adaptive management plan with the USFWS and CDFW and ensure that this plan is implemented. CDFG (2012) describes appropriate minimization and mitigation measures that would be required if burrowing owl sign is found.

Mojave Desert Tortoise Surveys: Formal protocol surveys for Mojave desert tortoise (USFWS 2019) must be conducted at the proper times of year. Because USFWS (2009) and CDFW require only experienced biologists to perform protocol surveys, USFWS and CDFW biologists should review surveyors' credentials prior to initiating the surveys. Per this protocol, since the impact area is larger than 500 acres, the surveys must be performed in the time periods of April-May or September-October so that a statistical estimate of tortoise densities can be determined for the "action area" (please see below). If any tortoise sign is found, the project proponent should coordinate with USFWS and CDFW to determine whether "take" under FESA or CESA is likely to occur from implementation of the proposed project. If tortoises are present, the project proponent must obtain a Section 10(a)(1)(B) incidental take permit from the USFWS and a section 2081 incidental take permit from the CDFW prior to conducting any ground disturbance.

We request that protocol-level surveys be performed at the area of the proposed project *and the alternative sites that are being considered* in the DEIR. The results of these surveys should be published in the DEIR and should include density estimates for each alternative assessed.

To determine the full extent of impacts to tortoises and to facilitate compliance with the FESA and CESA, authorized biologist(s) must consult with the USFWS to determine the action area for this project. The USFWS defines "action area" the Code of Federal Regulations and their Desert Tortoise Field Manual (USFWS 2009) as "all areas to be affected directly or indirectly by proposed development and not merely the immediate area involved in the action (50 CFR §402.02)." Since the NoP indicates that part of the proposed project occurs on dry lakebed surfaces, we believe that it is prudent to survey native scrub areas *a minimum of a mile east of the project footprint*. Disturbance of the lakebed will predictably result in excessive wind-blown dust, which will result in impaired habitats downwind, east of the lakebed.

The Council's persisting concern is that proponents of solar projects continue to identify a single site for development without any attempt to identify alternative sites. As such, when focused studies reveal significant accumulations of tortoises on the proponent's selected site, because there is only one site identified for the project, there is no opportunity to select an alternative site where impacts would be minimized.

Too often, a single impact footprint is identified, all surveys are restricted to that site, and no alternative sites are assessed. We are concerned that this project may have already pre-determined the project footprint. As such, there may be other areas of lower tortoise densities where impacts could be minimized. However, those areas would not be considered if the project footprint is predetermined before survey data are available. As such, we request that more than one site, preferably three, be identified and analyzed in the DEIR and that the alternative with the fewest impacts to tortoises be adopted for development.

If that is not feasible, we ask that the "action area" of the proposed project be several times larger than the project footprint so that those portions of the site with fewer tortoises could be selected particularly to the east where windblown dust will accumulate. Proponents of the Gemini Solar Site in southern Nevada, for example, ignored these recommendations, and displaced more than 100 tortoises, when based on their presence-absence tortoise surveys, a shift of the site to the east would have avoided many of those animals.

It is current management to require desert tortoise protocol surveys (USFWS 2019) on a given site, but all too often translocation sites are ignored. We feel strongly that protocol surveys should occur on multiple or enlarged sites as given above *and* on all proposed translocation sites, assuming tortoises will be translocated.

<u>Mojave Desert Tortoise Impacts Analysis</u>:

Analysis of Direct and Indirect Impacts: The alternatives analysis should include an economic analysis that provides the total cost of constructing the proposed project versus other alternatives, so the public can see how much the total cost of each alternative is. This would include an analysis of the costs of replacing all public resources that would be lost from granting the proposed project including direct, indirect, and cumulative impacts. Please note, this analysis would include habitat replacement or restoration costs including the time needed to achieve full replacement, not just acquisition, management, monitoring, and adaptive management costs.

The DEIR should include a thorough analysis of the status and trend of the tortoise in the action area, tortoise conservation area(s), recovery unit(s), and range wide. Tied to this analysis should be a discussion of all likely sources of mortality for the tortoise and degradation and loss of habitat from implementation of solar development including construction, operation and maintenance, decommissioning, and restoration of the public lands. The DEIR should use the data from focused plant and wildlife surveys in their analysis of the direct, indirect, and cumulative impacts of the proposed project on the Mojave desert tortoise and its habitat, other listed species, and species of concern/special status species.

We expect that the DEIR will document how many acres would be impacted directly by solar arrays, access roads to the site, administration/maintenance buildings, parking areas, transmission towers, switchyards, laydown areas, internal access roads, access roads along gen-tie lines, a perimeter road, perimeter fencing, substations, battery storage (e.g., the project footprint). We also request that separate calculations document how many acres of desert tortoise habitats would be temporarily and permanently impacted both directly and indirectly (e.g., "road effect zone," etc.) by the proposed Project. As given below, these acreages should be based on field surveys for tortoises not just available models.

Road Effect Zone: We request that the DEIR include information on the locations, sizes, and arrangements of roads to the proposed project and within it, who will have access to them, whether the access roads will be secured to prevent human access or vandalism, and if so, what methods would be used. The presence/use of roads even with low vehicle use has numerous adverse effects on the desert tortoise and its habitats that have been reported in the scientific literature. These include the deterioration/loss of wildlife habitat, hydrology, geomorphology, and air quality; increased competition and predation (including by humans); and the loss of naturalness or pristine qualities.

Vehicle use on new roads and increased vehicle use on existing roads equates to increased direct mortality and an increased road effect zone for desert tortoises. Road construction, use, and maintenance adversely affect wildlife through numerous mechanisms that can include mortality from vehicle collisions, and loss, fragmentation, and alteration of habitat (Nafus et al. 2013; von Seckendorff Hoff and Marlow 2002).

In von Seckendorff Hoff and Marlow (2002), they reported reductions in Mojave desert tortoise numbers and sign from infrequent use of roadways to major highways with heavy use (see also LaRue 1992). There was a linear relationship between traffic level and tortoise reduction. For two graded, unpaved roads, the reduction in tortoises and sign was evident 1.1 to 1.4 km (3,620 to 4,608 feet) from the road. Nafus et al. (2013) reported that roads may decrease tortoise populations via several possible mechanisms, including cumulative mortality from vehicle collisions and reduced population growth rates from the loss of larger reproductive animals. Other documented impacts from road construction, use, and maintenance include increases in roadkill of wildlife species as well as tortoises, creating or increasing food subsidies for common ravens, and contributing to increases in raven numbers and predation pressure on the desert tortoise.

Please include in the DEIR analyses, the five major categories of primary road effects to the tortoise and special status species: (1) wildlife mortality from collisions with vehicles; (2) hindrance/barrier to animal movements thereby reducing access to resources and mates; (3) degradation of habitat quality; (4) habitat loss caused by disturbance effects in the wider environment and from the physical occupation of land by the road; and (5) subdividing animal populations into smaller and more vulnerable fractions (Jaeger et al. 2005a, 2005b, Roedenbeck et al. 2007). These analyses should be at the population, recovery unit, and rangewide levels.

In summary, road establishment/increased use is often followed by various indirect impacts such as increased human access causing disturbance of species' behavior, increased predation, spread of invasive species that alters/degrades habitat, and vandalism and/or collection. The analysis of the impacts from road establishment and use should include cumulative effects to the tortoise with respect to nearby critical habitat and other Tortoise Conservation Areas (TCAs), areas identified as important linkage habitat for connectivity between nearby critical habitat units/TCAs as these linkage areas serve as corridors for maintaining genetic and demographic connectivity between populations, recovery units, and rangewide (see *Desert Tortoise Habitat Linkages/Connectivity among Populations and Recovery Units* below). These and other indirect impacts to the Mojave desert tortoise should be analyzed in the DEIR from project construction, operations and maintenance, decommissioning, and habitat restoration.

Desert Tortoise Habitat Linkages/Connectivity among Populations and Recovery Units: The DEIR should analyze how this proposed project will impact the movement of tortoises relative to linkage habitats/corridors. The DEIR should include an analysis of the minimum linkage design necessary for conservation and recovery of the desert tortoise (e.g., USFWS 2011, Averill-Murray et al. 2013, Hromada et al. 2020), and how the project, along with other existing projects, would impact the linkages between tortoise populations and all recovery units that are needed for survival and recovery. We strongly request that the environmental consequences section of the DEIR include a thorough analysis of this indirect effect (40 Code of Federal Regulations 1502.16) and appropriate mitigation to maintain the function of population connectivity for the Mojave desert tortoise and other wildlife species be identified. Similarly, please document how this project may impact proximate conservation areas, such as BLM-designated ACECs, particularly the nearby Ord-Rodman Critical Habitat Unit, which may be downwind from the northern portions of the proposed project.

Jurisdictional Waters in California: A jurisdictional waters analysis should be performed for all potential impacts to washes, streams, and drainages. It may be that the dry lakebed, itself, may be construed as jurisdictional waters, which should be determined by a knowledgeable consultant in conjunction with CDFW biologists. This analysis should be reviewed by the CDFW as part of the permitting process and a section 1600 Streambed Alteration Agreement acquired, if deemed necessary by CDFW.

Mitigation Plans

The DEIR should include effective mitigation for all direct, indirect, and cumulative effects to the tortoise and its habitats. The mitigation should use the best available science with a commitment to implement the mitigation commensurate to impacts to the tortoise and its habitats. Mitigation should include a fully-developed desert tortoise translocation plan, including protection of tortoise

translocation area(s) from future development and human disturbance in perpetuity; raven management plan; non-native plant species management plan; fire prevention plan; compensation plan for the degradation and loss of tortoise habitat that includes protection of the acquired, improved, and restored habitat in perpetuity for the tortoise from future development and human use; and habitat restoration plan if/when the proposed project is decommissioned.

All plans should be provided in the DEIR so the public and the decisionmaker can determine their adequacy (i.e., whether they are scientifically rigorous and would be effective in mitigating for the displacement and loss of tortoises and degradation and loss of tortoise habitat from project implementation). Too often, such plans are alluded to in the draft environmental document and promised later, which does not allow the reviewers to assess their adequacy, which is unacceptable. If not available as appendices in draft documents, all indicated plans must be published in the final environmental documents. Their inclusion is necessary to determine their adequacy for mitigating direct, indirect, and cumulative impacts, and monitoring for effectiveness and adaptive management regarding the desert tortoise. If these plans are not provided, it is not possible for the County, other decisionmakers, and the interested public to determine the environmental consequences of the project to the tortoise.

These mitigation plans should include an implementation schedule that is tied to key actions of the construction, operation, maintenance, decommissioning, and restoration phases of the project so that mitigation occurs concurrently with or in advance of the impacts. The plans should specify success criteria, include an effectiveness monitoring plan to collect data to determine whether success criteria have been met, and identify/implement actions that would be required if the mitigation measures do not meet the success criteria.

Translocation Plan - Translocated Tortoises & Translocation Sites: How many tortoises will be displaced by the proposed project? How long will translocated tortoises be monitored? Will the monitoring report show how many of those tortoises lived and died after translocation and over time? Are there any degraded habitats or barren areas that may impair success of the translocation? Are there incompatible human uses in the new translocation area that need to be eliminated or managed to protect newly-translocated tortoises? Were those translocation areas sufficiently isolated that displaced tortoises were protected by existing or enhanced land management? How will the proponent minimize predation of translocated tortoises and avoid adverse climatic conditions, such as low winter rainfall conditions that may exacerbate translocation success? Were tortoises translocated to a site where they would be protected from threats (e.g., off-highway vehicles, future development, etc.)? These questions should be answered in pertinent parts of the DEIR and be based on protocol surveys (USFWS 2019).

The project proponent should implement the USFWS' Translocation Guidance (USFWS 2020a) and coordinate translocation with CDFW. Although the best available, proximate habitats are likely to be on public lands managed by the BLM (e.g., Ord-Rodman ACEC), the proponent does not have the latitude to move tortoises there, which would constitute a federal nexus and require that a joint EIR/EIS (environmental impact statement) be developed. Even so, the proponent's project-specific translocation plan should be based on current data and be developed using lessons learned from earlier translocation efforts (e.g., increased predation, drought). (see *Desert Tortoise Translocation Bibliography Of Peer-Reviewed Publications*[1] in the footnote).

[1] https://www.fws.gov/nevada/desert_tortoise/documents/reports/2017/peer-reviewed_translocation_bibliography.pdf

The Translocation Plan should include implementation of a science-based monitoring plan approved by the Desert Tortoise Recovery Office that will accurately access these and other issues to minimize losses of translocated tortoises and impacts to their habitat. For example, the health of tortoises may be jeopardized if they are translocated during drought conditions, which is known to undermine translocation successes (Esque et al. 2010). If drought conditions are present at the time of project development, we request that the proponent confer with the USFWS and CDFW immediately prior to translocating tortoises and seek input on ways to avoid loss of tortoises due to stressors associated with drought. One viable alternative if such adverse conditions exist is to postpone site development until which time conditions are favorable to enhance translocation success.

Moving tortoises from harm's way, the focus of the Translocation Guidance, does not guarantee their survival and persistence at the translocation site, especially if it will be subject to increased human use or development. In addition to the Translocation Guidance and because translocation sites are mitigation for the displacement of tortoises and loss of habitat, these sites should be managed for the benefit of the tortoise in perpetuity. Consequently, a conservation easement or other durable legal designation should be placed on the translocation sites. The project proponent should fully fund management of the site to enhance it for the benefit of the tortoise in perpetuity.

Tortoise Predators and a Predator Management Plan: Common ravens are known predators of the Mojave desert tortoise and their numbers have increased substantially because of human subsidies of food, water, and sites for nesting, roosting, and perching to hunt (Boarman 2002). Coyotes and badgers are also predators of tortoises. Because ravens can fly at least 30 miles in search of food and water daily (Boarman et al. 2006) and coyotes can travel an average of 7.5 miles or more daily (Servin et al. 2003), this analysis should extend out at least 30 miles from the proposed project site, which encompasses critical habitats in the Ord-Rodman ACEC.

The DEIR should analyze if this new use would result in an increase in common ravens and other predators of the desert tortoise in the action area. During construction, operations and maintenance, decommissioning, and restoration phases of the proposed project, the County should require science-based management of common raven, coyote, and badger predation on tortoises in the action area. This would include the translocation sites.

For local impacts, the Predator Management Plan should include reducing/eliminating human subsidies of food and water, and for the common raven, sites for nesting, roosting, and perching to address local impacts (footprint of the proposed project). This includes buildings, fences, and other vertical structures associated with the project site. In addition, the Predator Management Plan should include provisions that eliminate the pooling of water on the ground or on roofs.

The Predator Management Plan should include science-based monitoring and adaptive management throughout all phases of the project to collect data on the effectiveness of the Plan's implementation and implement changes to reduce/eliminate predation on the tortoise if existing measures are not effective.

For regional and cumulative impacts, the County should require the project proponent to participate in efforts to address regional and cumulative impacts. For example, in California, the project proponent should be required to contribute to the National Fish and Wildlife Foundation's Raven Management Fund to help mitigation for regional and cumulative impacts. Unfortunately, this Fund that was established in 2010 has not revised its per acre payment fees to reflect increased labor and supply costs during the past decade to provide for effective implementation. The National Fish and Wildlife Foundation should revise the per acre fee.

We request that for any of the transmission options, the project use infrastructure (particularly towers) that prevent raven nesting and perching for hunting. For example, for gen-ties/transmission lines the tubular design pole with a steep-pointed apex and insulators on down-sloping cross arms is preferable to lattice towers, which should not be used. New fencing should not provide resources for ravens, like new perching and nesting sites.

According to Appendix A of Common Raven Predation on the Desert Tortoise (USFWS 2010), "The BLM's biological assessments and the USFWS' biological opinions for the California Desert Conservation Area (CDCA) plan amendments reiterate the need to address the common raven and its potential impacts on desert tortoise populations." Please ensure that all standard measures to mitigate the local, regional, and cumulative impacts of raven predation on the tortoise are included in this DEIR, including developing a raven management plan for this specific project. USFWS (2010) provides a template for a project-specific management plan for common ravens. This template includes sections on construction, operation, maintenance, and decommissioning (including restoration) with monitoring and adaptive management during each project phase (USFWS 2010).

Fire Prevention/Management Plans: The proposed project could include numerous infrastructure components that have been known to cause fires. Lithium-ion batteries at the project site have the potential to explode and cause fires and are not compatible with using water for fighting fires. Photovoltaic panel malfunctions have caused vegetation to burn onsite. We request that the DEIR include a Fire Prevention Plan in addition to a Fire Management Plan specifically targeting methods to deal with explosions/fires produced by these batteries/panels as well as other sources of fuel and explosives on the project site.

Habitat Compensation Plan: When the project proponent seeks an incidental take permit from the CDFW, because their project would result in take of a listed species under CESA (e.g., Mojave desert tortoise, Mohave ground squirrel, etc.), compensatory mitigation would be required. The mitigation lands must be occupied by the species and secured and managed in perpetuity for the listed species. Hence, the DEIR should include a Habitat Compensation Plan for the loss/degradation of habitat. This plan should calculate how it will fully mitigate for the impacts of the proposed project including direct, indirect, cumulative, and temporal impacts.]

Climate Change and Non-native Plants

Climate Change: We request that the DEIR address the effects of the proposed action on climate change warming and the effects that climate change may have on the proposed action. For the latter, we recommend including: an analysis of habitats within the project area that may provide

refugia for tortoise populations; an analysis of how the proposed action would contribute to the spread and proliferation of nonnative invasive plant species; how this spread/proliferation would affect the desert tortoise and its habitats (including the frequency and size of human-caused fires); and how the proposed action may affect the likelihood of human-caused fires. We strongly urge the County to require the project proponent to develop and implement a management and monitoring plan using this analysis and other relevant data that would reduce the transport to and spread of nonnative seeds and other plant propagules within the project area and eliminate/reduce the likelihood of human-caused fires. The plan should integrate vegetation management with fire prevention and fire response.

Impacts from Proliferation of Nonnative Plant Species and Management Plan: The DEIR should include an analysis of how the proposed project would contribute to the spread and proliferation of non-native invasive plant species; how this spread/proliferation would affect the desert tortoise and its habitats (including the frequency and size of human-caused fires); and how the proposed project may affect the frequency, intensity , and size of human-caused and naturally occurring fires. For reasons given in the previous paragraph, we strongly urge the County to require the project proponent to develop and implement a management and monitoring plan for nonnative plant species. The plan should integrate management/enhancement of native vegetation with fire prevention and fire response to wildfires.

Hydrology and Water Quality

Regarding water quality of surface and ground water, the DEIR should include an analysis of the impacts of water acquisition, use, and discharge for panel washing, potable uses, and any other uses associated with this proposed project, and cumulative impacts from water use and discharge on native perennial shrubs and annual vegetation used for forage by the Mojave desert tortoise, including downstream and downstream impacts. The DEIR should analyze how much water is proposed to be used during construction and operation; how any grading, placement, and/or use of any project facilities will impact downstream/downslope flows that are reduced, altered, eliminated, or enhanced. This analysis should include impacts to native and non-native vegetation and habitats for wildlife species including the Mojave desert tortoise, for which washes are of particular importance for feeding, shelter, and movements.

Therefore, we request that the DEIR include an analysis of how water use during construction, operations and maintenance, decommissioning, and habitat restoration will impact the levels of ground water in the region. These levels may then impact surface and near-surface flows at springs, seeps, wetlands, pools, and groundwater-dependent vegetation in the basin. The analyses of water quality and quantity of surface and ground water should include appropriate measures to ensure that these impacts are fully mitigated, preferably beginning with avoidance and continuing through other forms of mitigation.

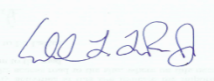
Cumulative Effects

With regards to cumulative effects, the DEIR should list and analyze all project impacts within the region including future state, federal, and private actions affecting listed species on state, federal, and private lands. The Council asks that the relationship between this proposed project and the

DRECP (BLM 2015) be analyzed, as the project area does not appear to be in a designated Development Focused Area (DFA) identified in the final Record of Decision by the BLM for the DRECP (BLM 2016). We also expect that the environmental documents will provide a detailed analysis of the "heat sink" effects of solar development on adjacent desert areas and particularly Mojave desert tortoise in addition to climate change.

We appreciate this opportunity to provide scoping comments on this project and trust they will help protect tortoises during any resulting authorized activities. Herein, we reiterate that the Desert Tortoise Council wants to be identified as an Affected Interest for this and all other projects funded, authorized, or carried out by the BLM that may affect species of desert tortoises, and that any subsequent environmental documentation for this project is provided to us at the contact information listed above. Additionally, we ask that you respond in an email that you have received this comment letter so we can be sure our concerns have been registered with the appropriate personnel and office for this project.

Respectfully,



Edward L. LaRue, Jr., M.S.
Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson

cc. California State Clearinghouse, state.clearinghouse@opr.ca.gov
Jeff Drongeson, Chief, Habitat Conservation Planning Branch, CDFW, HCPB@wildlife.ca.gov

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LUCERNE VALLEY ECONOMIC DEVELOPMENT ASSOCIATION (LVEDA)

To: Jim Morrissey, Planner Jim.Morrissey@lus.sbcounty.gov
Land Use Services
385 N. Arrowhead Ave. First Floor
San Bernardino, CA 92415

From: Chuck Bell, Pres. chuckb193@outlook.com
P. O. Box 193
Lucerne Valley, CA 92356

Date: 9/19/22

LVEDA's COMMENTS ON THE SIENNA NOP – EIR – AND PROJECT PARAMETERS:

Background:

The County's record re: approving and mitigating solar projects is dismal. Especially the two (previous 'Agincourt and Marathon') on Camprock Rd. in Lucerne Valley and most recently Daggett Solar (Clearway) in Daggett/Newberry Springs. Not just tons of flying dirt/sand/PM10 and 2.5 particles – all significant health impacts - piled sand on residents' driveways/yards/in houses in Newberry Springs, etc. Wrong locations for a

multitude of reasons. And MDAQMD/LUS/Code Enforcement not willing or able to deal with the complaints and violations. Hopefully it did better for projects at Kramer Junction and Harper Lake areas.

This cannot happen again. Time for the County to fully understand and deal with the consequences – and be available when needed for restitution.

Why wasn't the NOP delivered to the Lucerne Valley library? Certainly more locally available there than in Hesperia and San Bernardino. And we expect our library to have a copy of the Draft EIR!

The Bd. of Sups. resolution re: RECE amendment '4.10' allows transfers of grandfathered applications (those filed and accepted prior to the moratorium) to other locations within a community. The obvious intent was to keep moved project acreage/MWs/other parameters, etc. relatively consistent with the original application – not allowing expanded projects that significantly differ from the original. <u>If</u> we read the old and new project descriptions correctly:

Original on Lucerne Dry Lake: 990 acres. 300 MWs.
Proposed to new location: 1,854 acres. 525 MWs.

We asked the County to explain the allowed changes and obviously greater impacts. Response (probably from LUS) follows:

"The applicant worked with landowners in the vicinity of the current project location to relocate the project area based on the feedback and input received from the local stakeholders involved in the previous effort. They also want to be sure to account for various potential constructability constraints and setbacks, e.g. hydrology, drainage, ecological resources, land use, existing infrastructure, visual resources, etc. to achieve the most optimal final design with the fewest impacts possible.

Since there was no action taken on the previous Project, they are able to propose any changes to the Project description provided it is thoroughly disclosed, assessed in the EIR and made available for public comment."

The underlined part of the response doesn't answer the core of the question – nor explain divergence from the BOS' likely intent.

Project Objectives:

"Utilize a location that is in close proximity to an 'existing' SCE substation….." If that refers to SCE's Calcite substation – it doesn't exist (as correctly stated elsewhere in the NOP).

Aesthetics:

Sent separately by others will be aerials/maps showing the tremendous extent of the project's visibility within the community and along proposed "Scenic 247" (Barstow Rd.). Glare can only be partially mitigated and must be mitigated to the max. extent possible.

The Battery Energy Storage structure at 45' height would constitute a major intrusion that doesn't exist in the area other than powerlines. It needs to be lower.

At least viewed from Barstow Rd. - fixed panel tilts to the south would be less intrusive than east/west tracking especially in the afternoon. Nevertheless – still visible. Even with undergrounding power lines from a location on the project site to the proposed Calcite Substation – with towers on both sides – it will negate the intent and value of a State-designated "Scenic Highway".

The miles of powerlines required to link all the project's dispersed sites will significantly add to said impacts. That is an issue we brought up with the developer due to all the non-project parcels in the middle. There would be less poles and lines if said parcels could be incorporated/consolidated.

Definitely a Significant Adverse Environmental Impact that cannot be mitigated.

Agriculture:

The project's incorporation of agricultural fields will exacerbate the end of large-scale alfalfa/grain/etc. farming in Lucerne Valley – a major part of its historical custom, culture and land-use. However with our diminishing usable water rights due to the groundwater adjudication – conversion of ag. to solar will at least provide an economic 'way out' for the involved farmers. It's still a land-use impact.

Air Quality/Soils:

As stated above re: previous projects – the County's poor record in requiring 'real' mitigations for dirt/dust blow-off – plus developers lack of compliance with the few

that were required – cannot happen again. As evidenced with Daggett Solar – sand cannot be stabilized with water or chemical treatments – too unstable. This project's clay-based soils have a better chance of temporary adhesion with water – but still will blow off when disturbed.

The only real and feasible mitigation for dirt/dust/PM10 and 2.5 blowoff – affecting downwind residents – would be NO SOIL DISTURBANCE DURING TYPICAL WINDY MONTHS FROM NOVEMBER TO JUNE. It's just a matter of not scheduling work during those typical wind events. Plus – since that ground is mostly flat – requiring only minimal levelling – not grading – disturb as little as possible at a time. Example: Work on 20 acre segments – stabilize it – then another 20 – etc. Again, water application is only a temporary fix. With clay soils – the only feasible solution to soil erosion and downwind health impacts – and for successful operation of the facility – is to apply at least 4" of gravel on surfaces that would be continuously disturbed. Without a gravel base – wet clay soils from rain or water application and ponding in this low part of the basin will make driving/walking/construction/etc. extremely muddy and difficult – with vehicles mired in muck. Gravel in critical

locations is the solution for both erosion and the plant's operation.

Biological Resources:

While the site itself might not be biological 'rich' – it does provide cover and space for desert species. The analysis needs to factor in the site's value as a wildlife corridor.

The glare from the two solar plants in Lucerne Valley – seen from the entire valley from the north – resembles a vast 'lake'. What mitigations are available to at least reduce migrating waterfowl from seeing it as a "lake"? Both wind and solar power aren't bird friendly – especially the most protected species.

Cultural and Tribal Resources:

The site is at the south end or probably at one time within a Pleistocene lake – therefore a thorough on-the-ground cultural survey needs to be done – not just a literature review of Native American finds. Local tribes obviously have to be contacted.

(See other comments re: the project's impact on Lucerne Valley's custom and "culture").

Greenhouse Gas Emissions:

For the EIR to comply with its CEQA obligations – it must document the GHG emissions required for mining the materials (especially lithium) - manufacturing of the panels and all plant facilities – construction-related emissions – and how many years of plant operation will be required for it to become "GHG neutral". As an example – recent studies indicate that an electric car has to travel 60,000 miles before it becomes 'neutral' – compensating for the impacts of its manufacture, etc.

Hydrology and Water Quality:

Some wells within the project footprint produce high TDS/etc. water. Some better quality. It's all usable in one form or another. Any release of a hazardous substance associated with the project – especially its battery facilities that could percolate to groundwater – even through restrictive clay lenses – would be environmentally significant.

Estimates of the amount of water required for construction of previous solar projects – primarily for soil stabilization – have been a fraction of what was actually

used or needed. The source and amount of water required for this one needs to be accurately documented and realistic. The developer will likely have access to use of water rights from the farms to be vacated by the project – but the EIR needs to be honest about water requirements.

The EIR and the County need to fully understand, acknowledge and factor in the Mojave Basin groundwater adjudication – certainly better than it has in the past.

The EIR needs to cover any impacts on surrounding properties from any water flow diversions proposed by the project or required by County Flood Control.

Land Use and Alternatives:

The EIR needs to assess the impacts/consequences of the project completely transforming a rural farming/residential area into an industrial complex – albeit built-out solar might have different consequences than typical active 'industrial'. The construction will certainly make it fully "industrial' especially for the affected residents.

Alternatives to industrial solar taking up desert ground exist in many forms – ie: solar panels on the thousands of square miles of commercial parking lots in the western states – commercial and residential roof-tops – localized CCA's for communities – etc. And most of these utilizing local electrical grids not requiring thousands of miles of transmission lines that sluff off a high percentage of MWs along the way.

8 Minute reps. seem to want to work with the community. We met with them on site. The project site is large enough to warrant a revised Project Description eliminating panels or any disturbance immediately up-wind (primarily west) of residences – and stabilizing said ground as part of the project and as a courtesy to those that will be significantly affected by it – even with said changes. A 'revised' project would be the best form of 'mitigation' for these residences – of course along with the soil mitigations listed under Air Quality.

The County must require the developer to post a bond to cover the County in case it has to manage future decommissioning.

Cumulative/Growth Inducing Impacts:

We have dealt with project EIRs for many years. Never have we been confronted with the scale of cumulative Impacts associated with this one. Does this project alone warrant SCE's proposed Calcite substation? Does it need State Land's Stagecoach Solar to make the substation viable? Would this project's 'contribution' to the viability of the Calcite substation trigger the proposed (now on hold) Calcite Solar project? Then how does the proposed Ord Mt. Solar project fit in (now also on hold)? If some or all of those projects get approved and built – Lucerne Valley will be 'industrialized' – significant loss of its current rural, land-use integrity. Solar panels about everywhere – numerous powerlines across Barstow Rd. to the Calcite Substation, etc. etc. And of course that part of "Scenic 247"shot to hell.

And to make this situation more troublesome – the State Lands Commission is CEQA Lead Agency and decider on Stagecoach Solar in the northwest part of the valley - and the State's Stagecoach EIR will be the EIR for SCE's Calcite Substation - with the CPUC probably its deciding entity. There may or not be any County Conditional Use Permits required for it to weigh in for all these projects. So with Sienna's 'contribution' to the potential advancement of the Calcite substation – the State has a bigger hold on making decisions in our community. (That's like the fox and chickens deciding what to have for lunch).

And even with the County's "4.10" moratorium prohibiting any new solar applications to be filed – there are many acres of BLM's DRECP's Development Focus Areas (DFAs) in Lucerne Valley where new projects could be filed and with little or no County ability to weigh in.

Another potential growth-inducing impact: Apparently there is recent legislation or an 'Order'(?) allowing an <u>option for developers to bypass local project processing</u> and having the State - likely the Energy Commission - to be the entity deciding on solar/wind/renewables projects on

private lands. This would pre-empt counties from actions on them if the developer option is exercised – just another loss of local land-use control.

THE EIR HAS TO BE HONEST ABOUT ALL OF THIS!

NOTE: Latest info. we received from our State reps. re: Calcite substation and Stagecoach Solar:

Southern California Edison (SCE) has not filed a permitting Application with the CPUC yet for the Calcite Substation project. SCE provided CPUC staff with the below project summary information, including status and milestones, in July:

SCE Calcite Substation Summary

- *Need: To support the Stagecoach Solar Project and subsequent solar projects*
- *Background:*
  - *Aurora Solar (subsidiary of Avangrid) executed an interconnection agreement with SCE and CAISO in 2016 for 200 MW Stagecoach Solar Project + 50 MW for 4 hours battery energy storage on State Lands Commission land in San Bernardino County.*
  - *Aurora Solar issued an Authorization to Proceed requesting SCE to proceed with the Calcite Substation design, as the Stagecoach Solar Project is triggering the need for Calcite Substation.*

    - *State Lands Commission is performing California Environmental Quality Act (CEQA) review of the Calcite Substation as part of the Stagecoach Project.*
    - *SCE's project scope entails the construction of a 220-kV substation, loop in of the Lugo-Pisgah No.1 220-kV Transmission Line.*
- *<u>Status and Current Activities:</u>*
    - *May 2022: Avangrid suspended Stagecoach Solar Project due to the US Department of Commerce's decision to investigate anti-dumping and anti-circumvention duties on solar imports from Cambodia, Malaysia, Thailand, and Vietnam.*
- *<u>Upcoming Milestones:</u>*
    - *February 2023: Suspension by Avangrid of Stagecoach Project ends.*

The CPUC does not have a firm date on when we expect to receive a permitting Application from SCE on this project. We expect that we will not have an update from SCE until sometime after February 2023 when Avangrid's Stagecoach Solar Project suspension ends. In addition, the State Lands Commission is the lead agency for CEQA on the Calcite Substation. Thus, the CPUC will rely on the Environmental Impact Report (EIR) prepared by State Lands to process SCE's permitting Application.

<u>Noise:</u>

Construction noise could at least be partially mitigated for residents with the revision listed above. Noise carries a long way in desert airsheds. It would be bad enough and significant in that currently quiet area even during normal work hours – but the potential for "Some activities continuing 24 hours per day – seven days per week" will definitely constitute a 'significant adverse impact' for adjacent and surrounding residents. (See Transportation below re: traffic).

Transportation/Circulation:

This is critical content for an adequate EIR: Will the construction equipment come from Barstow to the north? Or off Hwy 18 though town from the west. Or through town from Hwy 247 from the east? Same for the workers? Or a mix? And at what percentage? What will be the main access route to the project site? How much and what type of trucks equipment would be expected during a typical day – week – etc.? How much associated noise and vibration? How would it affect regional and local residents? And impacts on local County

roads and normal traffic? How would it affect the town's Hwy 247/247 4 way stop? Number of vehicles/hour/day there? That intersection isn't wide enough for local semitrucks without needing the opposing lane for turning movements – let alone the long/wide rigs that this project will require. Where would right/left turn pockets be required – even if just temporary?

We will expect a detailed Traffic Study and analysis of these project impacts.

Utilities and Service systems:

8 Minute Solar reps. attend our LVEDA meetings and want to be 'part of our community' – very nice people and seem very generous. LVEDA's position is that we don't engage in discussion of any donations or financial help for our community projects until a project has been approved or in operation. Want to avoid any such conflicts.

There is one option for 8 Minute to be a major help and community benefactor – assuming this is even feasible and our local SCE substation can handle it - and the lines to it could be reached from the project site or nearby. If

feasible and practical – major question: 8 Minute donates X MWs diverted from the project directly though our local distribution system to SCE's local substation in town. And would only work if SCE would factor in lower rates for all our customers who get power off the SCE system. And of course if said substation has excess capacity or it could be increased. (This needs to be assessed and would likely be more of a "Project Description" than a direct EIR issue).

All solar reps. say that its power goes to the SCE grid and therefore 'we get it'. We have heard reports that MWs from California often get exported to other states. If true – what % of Sienna's output would be included in that export?

With Calcite Substation in place taking who knows how much power from potential Lucerne Valley solar plants – is there sufficient transmission capacity from Calcite Substation to the Lugo Substation in Hesperia to accommodate it all? What would need to be upgraded in that segment if any? That's a critical part and consideration of all these potential projects aided and abetted by Sienna Solar.

MBCA

morongo basin conservation association

September 22, 2022

County of San Bernardino, Land Use Services Department
Attn: Jim Morrissey, Planner
385 North Arrowhead Avenue, First Floor
San Bernardino, CA 92415
Email: Jim.Morrissey@lus.sbcounty.gov

RE: Scoping Comments for Sienna Solar and Storage Project in Lucerne Valley

Dear Mr. Morrissey:

MBCA takes this opportunity to comment on the proposed Sienna Solar and Storage Project consisting of the installation of a photovoltaic (PV) solar facility, a battery storage system (BESS), Project substation, operations and maintenance building(s), and the underground collection system on approximately 1,932-acres/500MW. The Project would interconnect with the SCE Calcite Substation (currently pending final permits and construction) via a proposed overhead and/or underground 230-kV gen-tie line in addition to other ancillary facilities utilizing private and potentially public right-a-way.

RECE Policy 4.10, 4.10.2, Co Resolution No. 2019-17, Section 3, and Sienna 2

- The Renewable Energy and Conservation Element (RECE) Policy 4.10: Prohibits utility-oriented renewable energy (RE) project development on sites that would create adverse impacts on the quality of life or economic development opportunities in existing unincorporated communities.
- Re 4.10.2 prohibits development of utility-oriented RE projects within the boundaries of existing community plans, which at the time of the RECE adoption included Lucerne Valley. This would seem to protect Lucerne Valley from the larger Sienna 2. However,
- County Resolution No. 2019-17 Section 3 states: *Any application for development of a renewable energy generation project that has been accepted as complete in compliance with CA Gov. Code Sec. 65943 before the effective date of this Resolution shall be processed in compliance with the policies and regulations in effect at the time the application was accepted as complete. These applications may be located to other sites under the same policies and regulations.*

The RECE and the Resolution were adopted in February 2019. The Resolution was not incorporated into the RECE. The original Sienna Application for a CUP was accepted in 2014.

However, eight years earlier the RECE incorporated the Countywide Vision Core Values as fundamental to development of the siting criteria for utility-scale RE projects. The Core Values sited on page 4 of the RECE were adopted on June 30, 2011 as part of the Countywide Vision Statement. The RECE Guiding Principles, based largely on the Core Values, are subject to the General Plan (2007). When complying with the policies and regulations, which comes first? In this case the chickens: General Plan (2007) and Core Values[1] (2011) precede the 2014 Sienna 1 Application. The County Resolution NO. 2019-17, Section 3, and the 2022 Sienna 2 NOP, the eggs, follow.

The proposed Sienna 2 project and its footprint is significantly different than the project described in the original application even though the 645 ac/300 MW (2014) grew over time to 1630 ac/450 MW (2018). The applicant, 99MT 8ME, LLC, remains the same.

The relocated Sienna 2 is larger than the final design of Sienna 1 by 302 acres. It now also includes a towering 45 foot high battery storage structure and a whopping 39 miles of collector and gen-tie lines to connect areas in within its irregular footprint with the substation. A reasonable person could assume these are not the same projects. See Sienna 2 NOP Figure 2-Local Vicinity Map.

CEQA Environmental Factor IX. LAND USE AND PLANNING: a) The large footprint Sienna 2 physically divides the established community as clearly visualized in Appendix A Figure 10.

Comment: Approval of Sienna 2 is questionable under Section 3. However, If Sienna 2 is approved under Section 3 it will bring regionally permanent adverse changes to the character, quality-of-life, and economy of the severely disadvantaged community (SDAC) of Lucerne Valley (https://gis.water.ca.gov/app/dacs/ Figure 9 Appendix A). These changes must be itemized under potentially significant cumulative impacts at all levels off-site and on-site.

Project Objectives

Is the SDAC community of Lucerne Valley included in the proposed Sienna 2 Project Objectives? No. But, it should be. See the RECE Community-Oriented Guiding Principles (page 5).

- Keep large-scale utility projects separate from or sufficiently buffered from existing communities, to avoid adverse impacts on community development and quality of life.

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[1] CORE VALUES Renewable Energy and Conservation Element Page 4.
The Countywide Vision Statement adopted by the Board of Supervisors on June 30, 2011, fosters strategic countywide coordination in a manner that reflects the priorities of local residents, businesses, and stakeholders. The citizens of San Bernardino County share the following core values, as articulated in the Countywide Vision:
 Quality of Life: A high quality of life for residents of the county that provides a broad range of choices to support the county's diverse people, geography, and economy to live, work, and play.
 Vibrant Economy: Ample economic opportunities for current residents and businesses that support countywide prosperity, as well as new investment in economic growth.
 Conservation of Natural and Cultural Resources: Stewardship that conserves and responsibly uses environmental, scenic, recreational, and cultural assets, ensures healthy habitats for sensitive plants and wildlife, enhances air quality and makes the county a great place for residents and visitors alike. Renewable energy, when developed responsibly, is a valuable natural resource.
 Sustainable Systems: High quality built, natural, and social systems that complement, rather than degrade, the county's natural resources, environment, and existing communities.
 Self-Reliance: Communities or individuals meeting their own energy needs.
 Open Governance: Governance guided by open, transparent, and ethical decision-making that values the county's environment, people, heritage, location, economy, and community spirit.

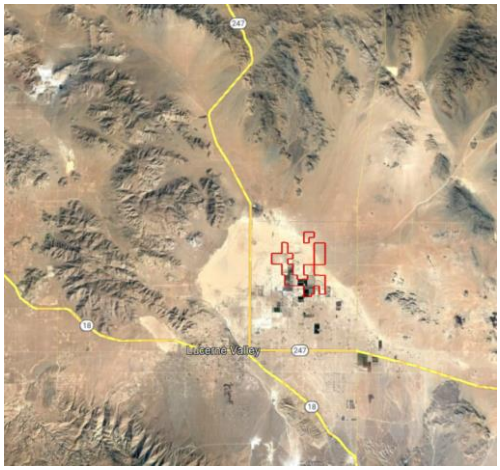
- Provide residents more affordable, reliable, diverse, and safe access to energy, especially renewable energy.

Comment: Should the proposed Sienna 2 be approved, the SDAC of Lucerne Valley will be required to absorb impacts to its development and quality of life. How much of that 500 MW of solar power will be diverted directly to community residents or community buildings? How will 8ME bring affordable, reliable, and safe access to renewable energy to Lucerne Valley residents?

CEQA Environmental Factor

I. AESTHETICS

The project would: a) have a substantial adverse effect on a scenic vista; b) substantially damage scenic resources; c) substantially degrade the existing visual character or quality of public views of the site and its surroundings; d) create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?



The Impacts of this project on scenic vistas and the visual character of the community are significant. The quality-of life for all residents will be changed. No longer will the view out the window or from the front porch be one's neighbor (wave to say hi) and the surrounding mountains.

The Project footprint would industrialize an area of ~5 square miles of land east of SR 247. It will be visible for 322 sq. /mi, and within the viewshed of 2,761 homes,

See Figure 2: Visibility of Proposed Sienna Solar and SCE Substation Projects (page 4) and Figure 10 Appendix A

Figure 1: Landscape view of Proposed Project showing its basin location in relation to the surrounding mountainous viewshed.

The NOP does not provide information on lighting but one assumes for security purposes lighting will be required. In addition, the lighting glow at night could be substantial and affect wildlife as well as the residents. Please consult the SB Co Outdoor Lighting Ordinance https://lus.sbcounty.gov/planning-home/outdoor-lighting-regulations/

The County has designated SR 247 as scenic. Currently, its views are largely unobstructed. SR 247 could be one of the least despoiled series of desert views in California.

As proposed, Sienna 2 will impact SR 247's designation by Caltrans as "eligible" for Scenic Highway status. The State has established it as eligible for scenic designation; therefore it has scenic protection under Chapter 27 of the California Department of Transportation Standard Environmental Reference: *The intent of the State Scenic Highway Program is to protect and enhance California's natural scenic beauty. If a highway is listed as eligible for official designation, it is also part of the Scenic Highway System and care must be taken to preserve its eligible status*. Department of Transportation website:
http://www.dot.ca.gov/ser/vol1/sec3/community/ch27via/chap27via.htm#scenic

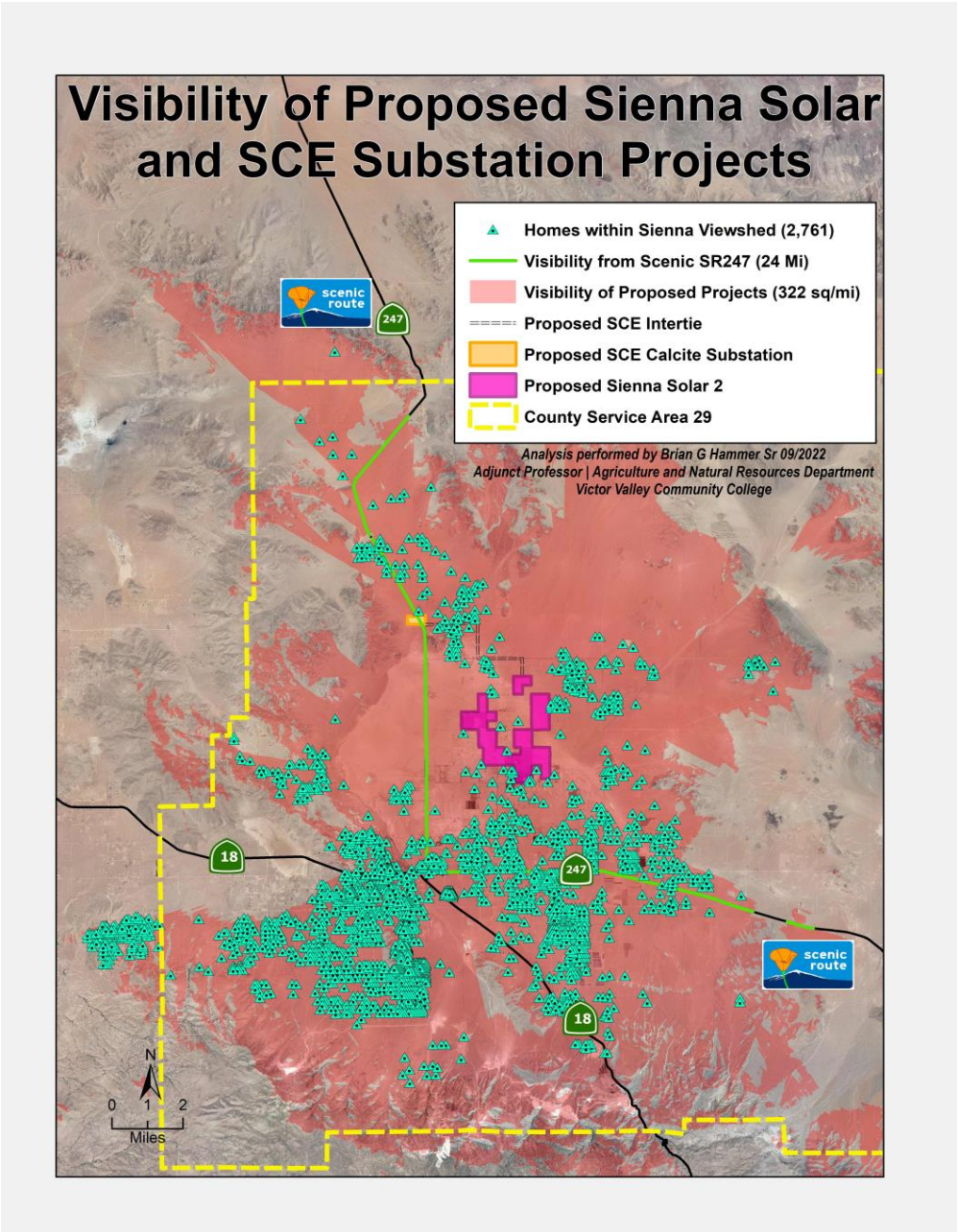


Figure 2: Visibility of proposed Sienna Solar and SCE Substation Projects

Because of the scale the homes look close together but in reality, and factoring in the history of homesteading back to the 1870s and the later Small Tract Act (5 acre Jackrabbit Homesteads 1938-1976) most homes are on 1 to 5 acres and larger. See Figure 10 Appendix A

Comment: The Impact of the proposed Project is potentially significant and all mitigation measures must take into consideration the whole action involved, including off- and on-site.

THIS IS NOT AN ACT OF GOD

Taken 03/17/2014 at 2:04 PM at the top of Camp Rock Road, Lucerne Valley

THIS IS INDUSTRIAL SOLAR IN THE DESERT

CEQA Environmental Factor
III AIR QUALITY:
As we will see (Figure 3, page 6), when disturbed the Sienna 2 project area soils will release considerable PM 10 and PM 2.5 exposing a large number of sensitive receptors (Figure 2) to substantial dust pollution resulting in significant health impacts. See the Newberry Springs blog referenced below.

Unfortunately, the local Mojave Desert Air Quality Management District (MDAQMD) is not able to make accurate PM determinations because it lacks ambient air quality monitors in the affected area. Their monitors are in Hesperia and Victorville approximately 22 miles west, upwind of the proposed project and blocked by the Granite Mountain ridges. The Lucerne Valley ambient air monitor is located at a school on Aliento Road off Route 18 going toward Big Bear. It monitors descending air from the higher up Mitsubishi Cement Mine and would not record PM rising from disturbance 5 miles to the north although the dust clouds will be visible.

As a Best Management Practice 8ME would have baseline monitoring data for at least one year, but 2 is better. Without baseline data you would be advised to rely on local experience including consultation with Chuck Bell and members of LVEDA. When the wind blows, beginning at 15 mph. the dust will rise during the 12 to 24 months of continuous construction and during operation. See photo at the top of this page. The MDAQMD Dust Control Plan which 8ME will have to sign relies on water and chemicals. To see how well this has worked for the folks in Newberry Springs during the current construction of the Daggett Solar Project visit
http://newberryspringsinfo.com/Alliance/Compilation3.html

Figure 3: Soils with potential for dust issues illustrates how wise 8ME was to move Sienna 1 east off the dry lake proper. The beige color in Figure 3 is the shrinking clays found at the upper edges of Pleistocene lakes. Following storms, as the slimy clays dry out, huge fissures form which swell and heave making it difficult to travel across. A thick gravel surface will be required for vehicles traveling across the project area. The agricultural parcels will lose their cover crops along with the moisture and roots which hold the clay surface in place.

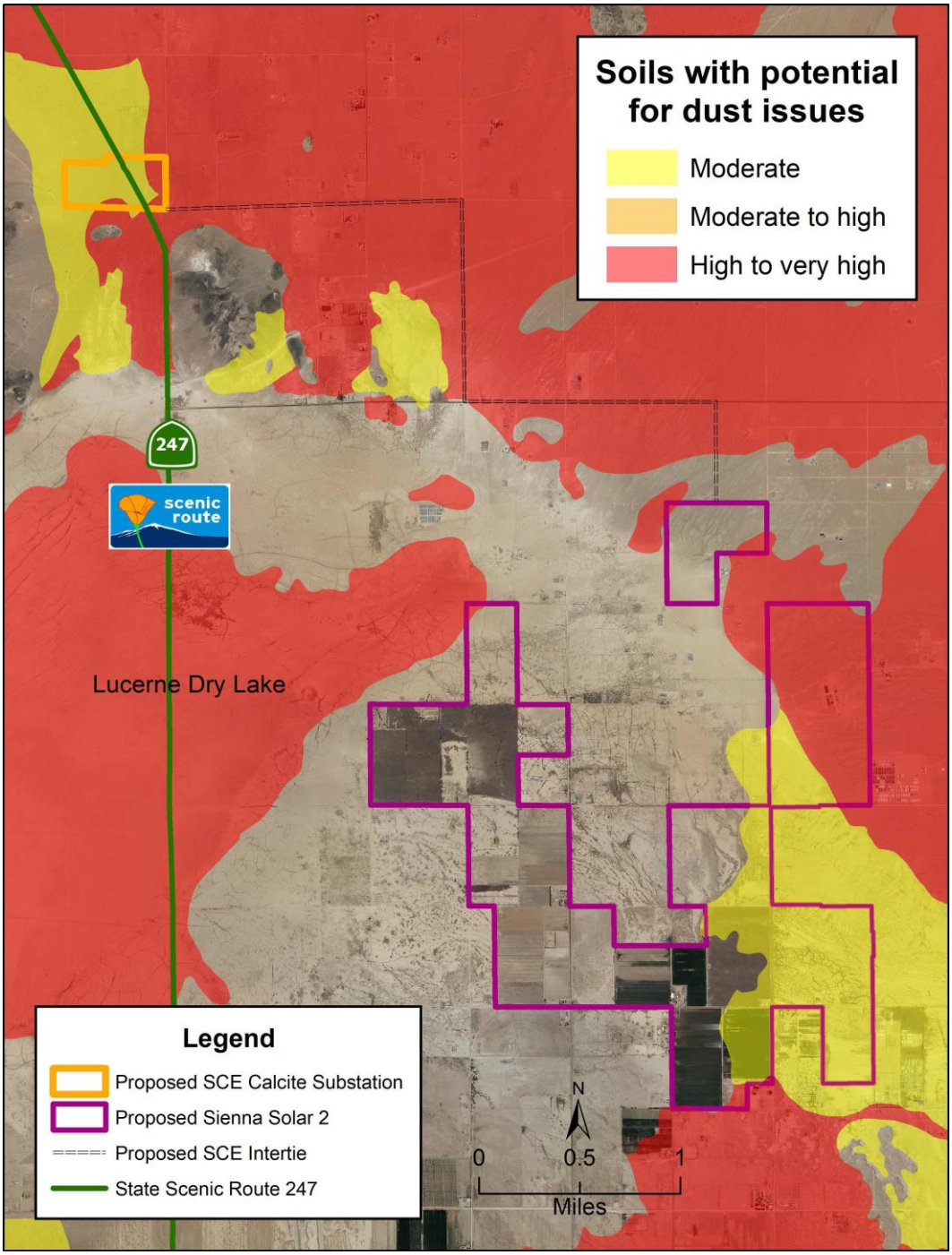


Figure 3: Soils with potential for dust issues

Although CEQA lists the factors to be addressed alphabetically nature doesn't work that way. All discussion of air quality includes the geology and soils and water availability for the life of the project and beyond.

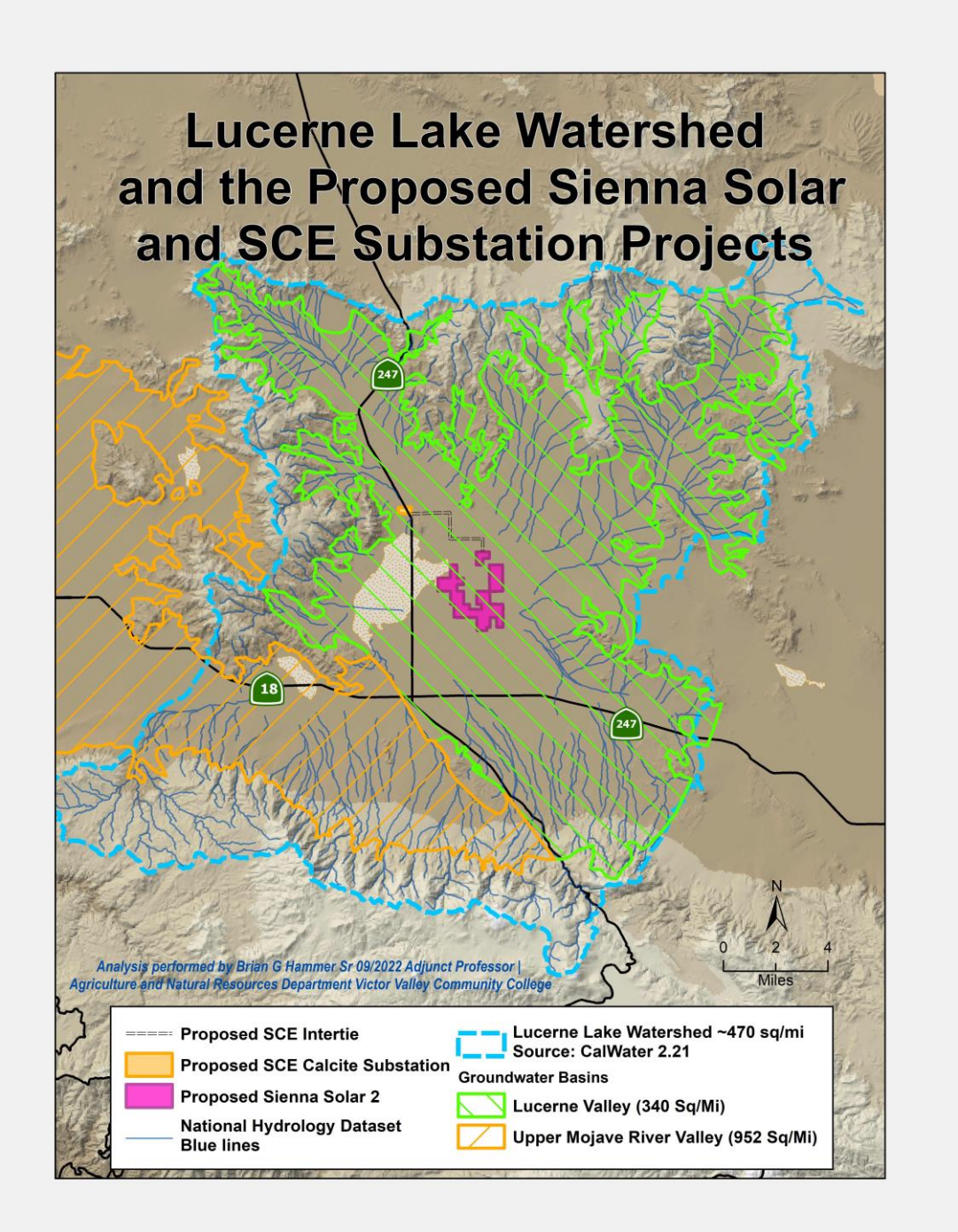


Figure 4: Lucerne Lake Watershed and Groundwater Basins

Comment: Local residents relying on wells must be protected. Water for construction, operation, and decommissioning (unless the project is continued) must be accounted for. Chuck Bell, President of LVEDA, has pointed out that estimates for previous projects primarily for soil stabilization have been a fraction of what was actually used or needed. The EIR needs to be realistic about water and dust control. Locals have the experience to know when soil stabilization and water calculations are based on the best available information.

Dust control and water availability, including recharge have potentially significant impacts from the proposed Sienna 2 project. Before any approval of the CUP 8ME must show they have the water rights and/or will serve letters to provide all the water required for the duration of the project without drying up neighboring wells. This information must be publically disclosed.

For these comments the USGS 2022 study done with the Mojave Water Agency was consulted.
https://www.usgs.gov/publications/hydrogeology-and-simulation-groundwater-flow-lucerne-valley-groundwater-basin

> *Groundwater withdrawal from pumping has exceeded the amount of water recharged to the basin, causing groundwater declines of more than 100 feet between 1917 and 2016 in the center of the basin. The continued withdrawal has resulted in an increase in pumping costs, reduced well efficiency, and land subsidence near Lucerne Lake. Although the volume of pumping has declined in recent years, there is concern that new agricultural growth and limits on imported water will continue to strain the sustainability of the groundwater system*.

Dust Control: Those of us living in areas subject to dust storms during construction and operation of utility-scale solar projects speak from experience. It must be dealt with up front to prevent both the health and property impacts. We suggest again that the Newberry Springs blog visualizing their ongoing experience with the construction of Daggett Solar be viewed.
http://newberryspringsinfo.com/Alliance/Compilation3.html
The Great Basin Unified Air Pollution Control District provides useful guidance on the technology for controlling dust in our basins.
https://gbuapcd.org/OwensLake/DustControls/

CEQA Environmental Factor
IV BIOLOGICAL RESOURCES
d) The project would interfere substantially with the movement of established native resident or migratory wildlife species and their migratory corridors.

The EIR biological report must account for the golden eagles known to fly the area. The 39 miles of connector and gen-tie pole lines will provide a number of perches for eagles and other birds especially ravens. Raven numbers are out of control in the region – poor desert tortoise,
https://www.29palms.marines.mil/Portals/56/Docs/Environmental%20Affairs/RavenManagementFinalPEA_signedFONSI.pdf

Apple Valley is preparing a Multispecies Habitat Conservation Plan And Natural Community Conservation Plan (Apple Valley MSHCP/NCCP).
https://www.applevalley.org/home/showpublisheddocument/31135/637575478074670000

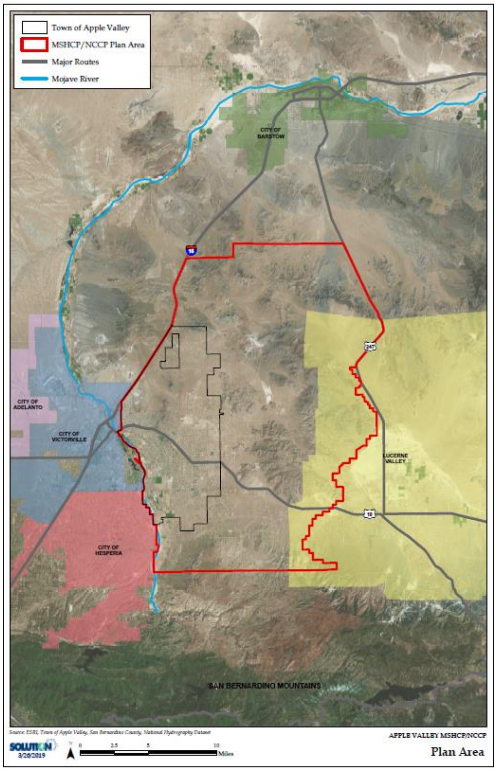


Figure 5: Plan Area for the Apple Valley HCCP

The Plan Area does not overlap with the proposed Sienna 2 site but the covered species are not impressed with artificial boundaries and should be studied for overlap with the Sienna 2 site in the EIR. See Table 1 below for the list of covered species especially those that are threatened, endangered, or candidate species under federal and state laws.

Figure 6: Terrestrial Connectivity (page 10) places the proposed Sienna 2 within both Connectivity Rank 3 and 4 as developed by California Department of Fish and Wildlife. It is also within the DRECP Desert Linkage Network.

The terrestrial connectivity bridges the area between the San Bernardino Mountains and the Newberry and Rodman Mountain Wilderness Areas.

Covered Species

The species proposed for coverage under the MSHCP/NCCP include four State and/or Federally listed species and five special status species and/or state fully protected species in the Plan Area (see Table 1, below). The list of species proposed to be covered in the MSHCP/NCCP may be modified to include additional threatened or endangered species, and species that may become listed as endangered or threatened during the life of the permit that occur within the project area and may be affected by the covered activities.

TABLE 1 – SPECIES PROPOSED FOR INCLUSION IN THE APPLE VALLEY MSHCP/NCCP

Common name	Scientific name	Federal status	State status
Birds			
Burrowing owl	*Athene cunicularia*	None	State Species of Concern (SSC)
Golden eagle	*Aquila chrysaetos*	Protected under BGEPA and MBTA	Fully Protected Watch List
Least Bell's vireo	*Vireo belli pusillus*	Endangered	Endangered
Southwestern willow flycatcher	*Epidonax traillii extimus*	Endangered	Endangered
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	Candidate	Endangered
Mammals			
Desert bighorn sheep	*Ovis canadensis*	None	Fully Protected
Desert kit fox	*Vulpes marotis arsipus*		Fully Protected Furbearing Mammal
Reptiles			
Desert tortoise	*Gopherus agassizii*	Threatened	Threatened
Plants			
Joshua tree	*Yucca brevifolia*		Candidate Threatened

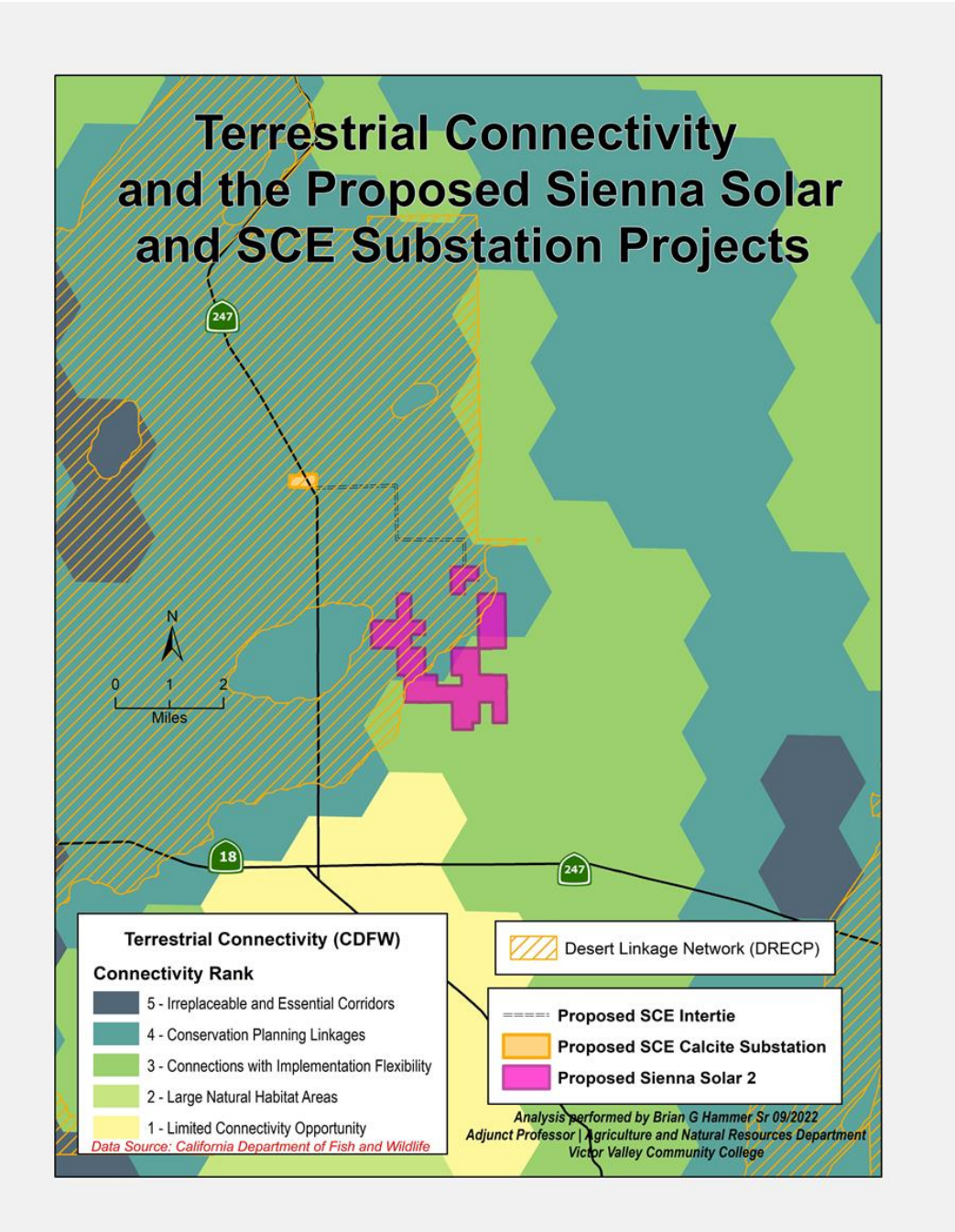


Figure 6: Terrestrial Connectivity

Comment: The EIR must analyze the biological richness of the area and the mitigation measures proposed for Sienna 2 on- and off-site including the larger surrounding area to maintain the integrity of the connectivity between the San Bernardino Mountains and the Newberry and Rodman Mountains Wilderness Areas.

CEQA Environmental Factor
XIII PUBLIC SERVICES
The proposed Project's battery storage system will include up to 525 MW of energy storage capacity. Lithium batteries are known to be highly explosive and flammable under certain conditions. A fire in the battery storage system would have a significant impact on the surrounding community and Fire fighting service..

Comment: The EIR must account for the flammabality of the 45' high storage facility and show if the local San Bernardino Fire Station 8 has the equipment and the trained fighters to extinguish a lithim blaze while protecting the surrounding community members. Mitigation could require 8ME to support expanded equipment, personnel, and training.

CEQA Environmental Factor
XVII. MANDATORY FINDINGS OF SIGNIFICANCE
a) Does the project have the potential to substantilally degrade the quality of the environment?
b) Does the project have impacts that are individually limited but cumulatively considerable?

The answer to both a. and b. is yes. Following we show the degradation of the environment as it relates to migratory bird species. And we will demonstrate the triggering affect of this project and its dependence on additional projects.

Cumulative effects
Please see Figure 7: Cumulative Solar Projects (page 12)
Figure 7 shows the existing and planned solar projects and the SCE Calcite Substation.

Southern Lucerne Valley
- Agincourt (80 acres) and
- Marathon (152 acres) off Camp rock road in

Northern Lucerne Valley
- Sienna 2 (proposed – 1932 acres)
- Ord Mountain (proposed - 483 acres)
- Calcite Solar (proposed - 664 acres)
- Stagecoach Solar (proposed – 1950 acres)

Daggett Solar (in construction – 3500 acres) in Newberry Springs

The four Projects in northern Lucerne Valley depend on the approval and construction of the Calcite Substation for energy distribution. The EIR for Calcite is connected to Stagecoach Solar with approval by the CPUC before construction. Stagecoach is on State Lands and California State Lands is the Lead Agency.

Comment: Figure 7: Cumulative Solar Projects (page 12) is included to assist with the cumulative analysis on the environment and on the SDAC communities of Lucerne Valley and Newberry Springs. From the personal investment of homeowners, health effects from diminished air quality, loss of community tourist revenue, the personal loss of viewshed and dark night skies, and the change in day-today living that the muliple effects will change many lives. Watch again the Newberry Springs blog documenting Daggett Solar construction.

Lake Effect and degradation of the environment

If all the listed projects are built the millions of solar panels when stowed at night under moonlight or just starlight will resemble a series of ponds of varying sizes. Migrating birds, many species flying at night, will see the ponds as places to stop and rest, and feed, before continuing on to the Salton Sea and other points south. Unfortunately, they tend to crashland on the hard panel surface with fatal results. Panel glow will also attract birds during daylight hours.

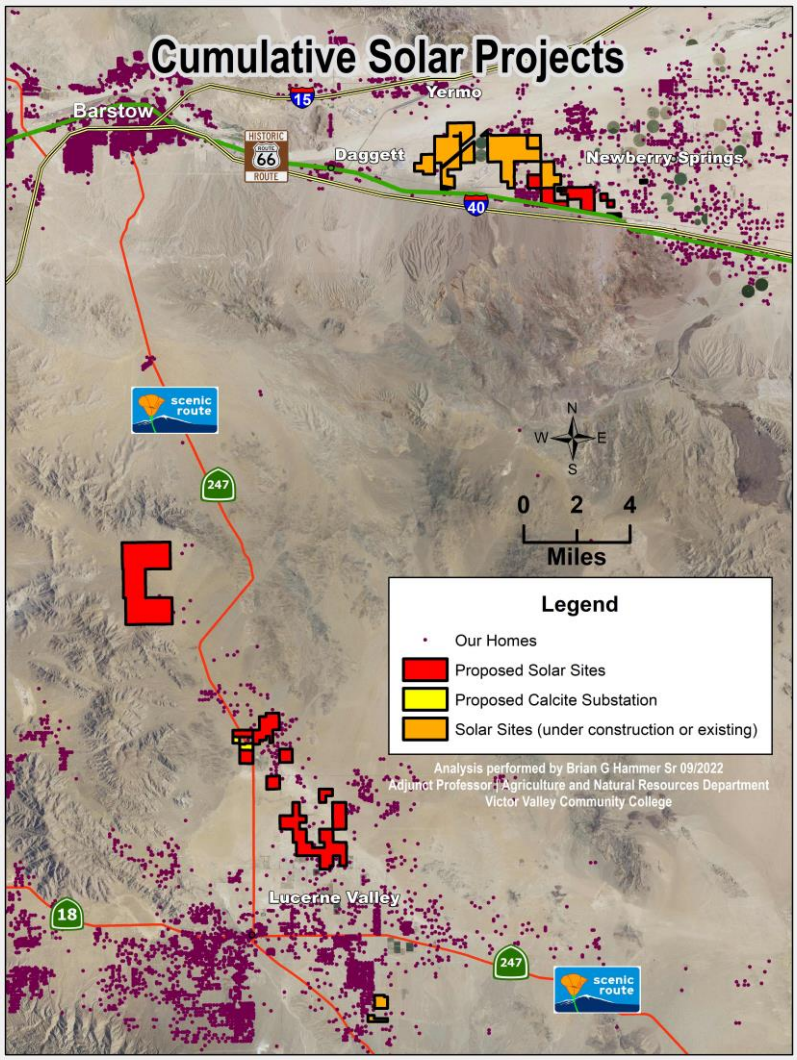


Figure 7: Cumulative Solar Projects

Birds have been migrating the inland route of the Pacific Flyway for millions of years. During the Pleistocene (Ice Ages) they would have been used to seeing the landscape below them dotted with lakes in the basins between the hundreds of mountain ranges. At the end of the Ice Ages the climate warmed and the lakes became ephemiral and then disappeared. Now, human created ponds attract the birds to rest and eat. It can be hard to distinguish the difference between a solar field and a pond at night and certain times during the day. The Lake Effect is a deadly illusion.

The Lake Effect as a bird killer has been known since 1982 with the installation of the experimental Solar One in Daggett. During migration hundreds of migrating birds a day would be observed in the Daggett Evaporation Ponds. Occasionally, disoriented birds flew into a heliostat. This reviewer reports from experience as the biologist on site to observe and record the birds.

In order to understand the magnitude of the bird problem it is necessary to look beyond bird surveys of the solar sites themselves for a regional picture. Fortunately this is easy to do because the Cornell Lab of Ornithology has given us the tool: eBird is a citizen science, peer reviewed site where people record birds at locations around the world. To access this project go to https://ebird.org/hotspots. When the world map comes up type “Daggett Evaporation Ponds” into the Hotspot search window. Shortly you will see the hotpot on a larger map. For a better look at

the area activate the satellite map. Pulling back you will get a view of other hotspots in the area. I am interested in the ones marked by yellow or red balloons. Figure 8 shows the mapped area in Figure 7. Daggett/Newberry Springs is on the east side. Lucerne Valley is at the base of the arc of mountains. The Mojave River defines the mountain arc and includes the red balloon Mojave Narrows Regional Park.

The yellow balloons:
Piute Rd. Dairy, Daggett Evaporation Ponds and Tees & Trees surround the Daggett Solar Project. The rest of the yellow balloons trace ponds along the Mojave River.

Figure 8: eBird Hotspots captured 9/19/2022

eBird Hotspot from east to west	# species	# counts
Camp Cady	109	38
Piute Rd. Dairy	125	135
Daggett Evaporation Ponds	150	291
Tees & Trees – Barstow Ponds	256	218
Barstow WTP	165	186
Barstow Community College	121	310
Helendale WTP	126	141
Silver Lakes (SBE Co.)	187	235
Mojave Narrows Regional Park (red balloon)	267	1222

Table 2: eBird Hotspot data from east to west. The #counts is the number of times that a person has uploaded observations to the site.

The area is rich is species diversity. Most of the species are migratory, heading south to the Salton Sea and beyond.

The proliferation of utility solar sites in this area of the flyway is deadly. Without scientific study and transparent reporting there is no way to know if any mitigation measures work.

Comment: In addition to the CEQA Mandatory Findings the County Development Code Findings must be completely evaluated in the project EIR.

The San Bernardino County Development Code § 85.06.040 Findings Required

(1) The site for the proposed use is adequate in terms of shape and size to accommodate the proposed use and all landscaping, loading areas, open spaces, parking areas, setbacks, walls and fences, yards, and other required features pertaining to the application.

(2) The site for the proposed use has adequate access, which means that the site design incorporates appropriate street and highway characteristics to serve the proposed use.

(3) The proposed use will not have a substantial adverse effect on abutting property or the allowed use of the abutting property, which means that the use will not generate excessive noise, traffic, vibration, or other disturbance. In addition, the use will not substantially interfere with the present or future ability to use solar energy systems.

(4) The proposed use and manner of development are consistent with the goals, maps, policies, and standards of the General Plan and any applicable community or specific plan.

(5) There is supporting infrastructure, existing or available, consistent with the intensity of development, to accommodate the proposed development without significantly lowering service levels.

(6) The lawful conditions stated in the approval are deemed reasonable and necessary to protect the public health, safety, and general welfare.

Thank you for your consideration of these Scoping Comments.

Special thanks to Board Member Brian Hammer for the informative and visually compelling maps without which this analysis could not have been done.

Sincerely,

Pat Flanagan, MBCA Board Member and Project Reviewer

Steve Bardwell, MBCA Board President

Cc:

Supervisor Col. Paul Cook	Supervisor.Cook@bos.sbcounty.gov
Supervisor Janice Rutherford	Supervisor.Rutherford@bos.sbcounty.gov
Supervisor Dawn Rowe	Supervisor.Rowe@bos.sbcounty.gov
Supervisor Curt Hagman	Supervisor.Hagman@bos.sbcounty.gov
Supervisor Joe Baca, Jr.	Supervisor.Baca@bos.sbcounty.gov

APPENDIX A

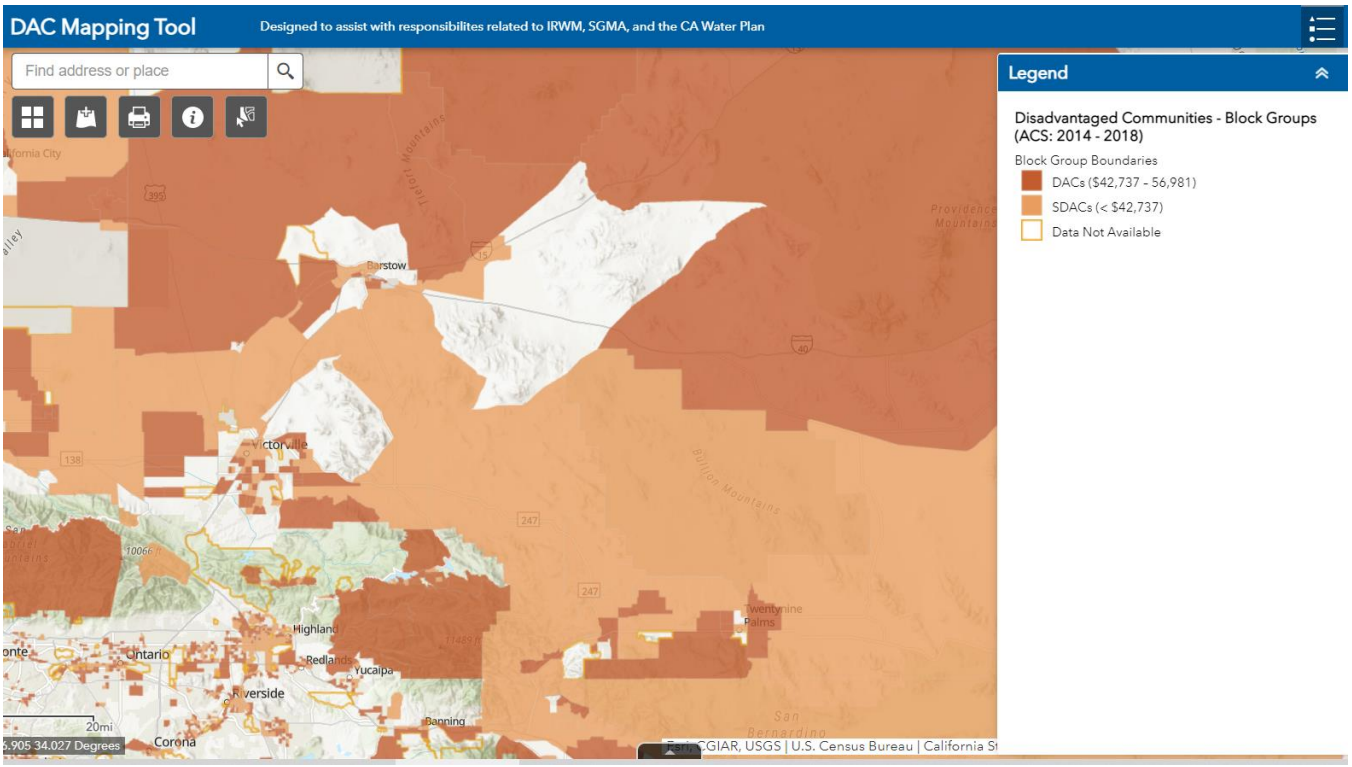


Figure 9: Map showing the Severely Disadvantaged Communities (SDAC) of Lucerne Valley and Newberry Springs.

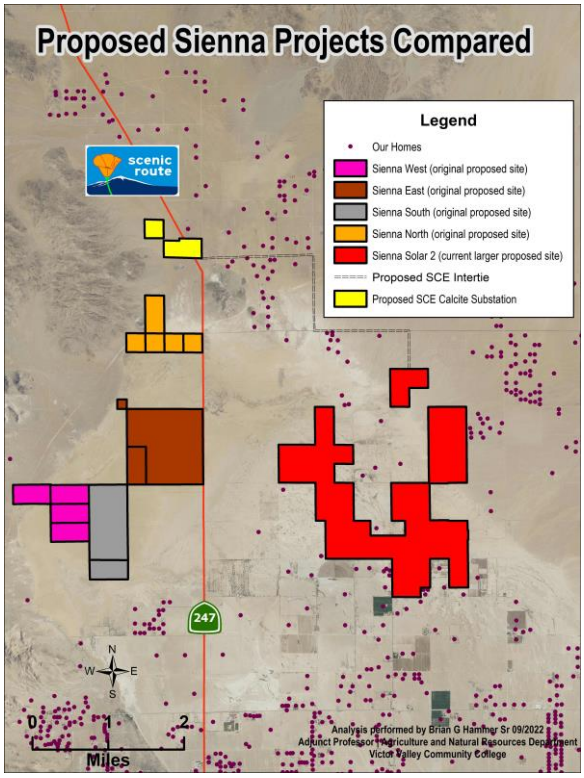


Figure 10: Proposed Sienna Projects Compared

The map demonstrates the degree to which the original Sienna 1 Project, even after the additional acres were added, did not physically divide the community of Lucerne Valley as the proposed Sienna 2 does.

California Program Office
P.O. Box 401 Folsom, California 95763 | 916-313-5800
www.defenders.org

September 22, 2022

Jim Morrissey, Contract Planner
County of San Bernardino, Land Use Services Department
385 North Arrowhead Avenue, First Floor
San Bernardino, CA 92415
Delivered via email to: Jim.Morrissey@lus.sbcounty.gov

RE: Scoping Comments – Sienna Solar and Storage Project Draft Environmental Impact Report (SCH 2022080518)

Dear Mr. Morrissey:

Thank you for the opportunity to provide scoping comments for the Draft Environmental Impact Report (DEIR) for the proposed Sienna Solar and Storage Project (Project). These comments are submitted on behalf of Defenders of Wildlife (Defenders) and our nearly 2.2 million members and supporters in the United States, 323,000 of which reside in California.

Defenders is dedicated to protecting all wild animals and plants in their natural communities. To that end, Defenders employs science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions to prevent the extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

Defenders strongly supports responsible energy development that will help meet California's emission reduction goals. A low carbon energy future is critical for California – for our economy, our communities, and the environment. Achieving this future, and *how* we achieve it, is critical for protecting California's internationally treasured wildlife, landscapes, productive farmlands, and diverse habitats.

As we transition toward a clean energy future, it is imperative for our future and the future of our wild places and wildlife that we strike a balance between addressing the near-term impact of solar development with the long-term impacts of climate change on our biological diversity, fish and wildlife habitat, and natural landscapes. To ensure that the proper balance is achieved, we need smart planning for renewable power that avoids and minimizes adverse impacts on wildlife and lands with known high-resource values. We believe energy projects must be sited in a manner that avoids or minimizes impacts to wildlife and wildlife habitat, and where necessary, unavoidable impacts should be offset through mitigation.

The Project is located on 1,854 acres in the southwestern portion of the Mojave Desert within unincorporated San Bernardino County, east of State Route 247 and north of the unincorporated community of Lucerne Valley. The Project is a 525-megawatt (MW) utility scale solar photovoltaic electricity generation facility that will include up to 525 MW of storage and a 230 kV gen-tie line.

We offer the following scoping comments for the DEIR for the Project:

1. **General**: Aerial imagery of the Project area show areas of previous disturbance such as fallow alfalfa fields, dirt roads and trails. The Project is also in a Development Focus Area (DFA) that was identified in the Preferred Alternative of the Draft Desert Renewable Energy Conservation Plan (DRECP). Although the final DRECP did not apply to private lands, those DFAs in the Draft DRECP were determined to be areas where renewable energy projects could be developed due to their low biological and cultural resource values. Thus, the Project is located in an area that was identified by DRECP staff experts as potentially suitable for utility-scale renewable energy projects, including solar PV.

2. **Biological Resources**: The NOP states that the Project has the potential to cause significant impacts on biological resources and that the DEIR will assess those effects, identify feasible mitigation measures to reduce or eliminate potentially significant impacts, and identify potentially feasible alternatives to the Project that may accomplish basic Project objectives while lessening or eliminating any potentially significant impacts.

Defenders is primarily concerned with the impact of the project on special-status species. Numerous special-status species are known to occur or are likely to occur within the Project area and therefore may be adversely impacted by the Project. Defenders recommends coordination with the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service for appropriate protocol level survey methods for special-status species, including the desert tortoise, burrowing owl, loggerhead shrike, desert kit fox and American badger. If the surveys find special-status species occurring on or near the project site, we recommend consultation with the state and federal wildlife agencies for recommended impact avoidance, minimization, compensatory mitigation measures, and requirements for obtaining Incidental Take Permits, if needed.

According to the California Natural Diversity Database (CNDDB), and Data Basin (databasin.org), the project site and adjacent areas may provide habitat for the following special status species (e.g., threatened, endangered, fully protected, species of special concern). Appropriate surveys for these species should be performed and the results included in the DEIR, how the Project would impact them, and appropriate impact avoidance and mitigation measures.

Common Name	**Scientific Name**
Desert tortoise	*Gopherus agassizii*

Burrowing owl	*Athene cunicularia*
Loggerheaded shrike	*Lanius ludovicianus*
Desert kit fox	*Vulpes macrotis arsipus*
American badger	*Taxidea taxus*

The Project is located within a Landscape-level Linkage for wildlife movements identified in the Final DRECP, Figure H-2 (Attachment 1). The DEIR should include an analysis of the effects of the Project on the linkage and mitigation measures designed to minimize adverse effects on wildlife movements and to maintain the function of the linkage.

The American badger is a California Species of Special Concern.[1] According to the map of habitat linkages, the Project is located within a portion of the Desert Linkage Network identified as a Least Cost Corridor for this species.[2]

3. **Cumulative Impacts**: The increasing development of solar energy projects in the Lucerne Valley area and associated fencing and lighting present barriers and deterrents to wildlife. Cumulative impacts to these special-status species accrue over time and increase when impacts from individual projects are not fully mitigated or offset as required under the California Environmental Quality Act. The DEIR should include analysis of cumulative impacts to special status species from renewable energy development and other reasonably foreseeable development in Lucerne Valley.

Per Public Resources Code Section 21001(c), it is the policy of the state to: 1) prevent the elimination of fish or wildlife species due to man's activities, 2) ensure that fish and wildlife populations do not drop below self-perpetuating levels, and 3) preserve for future generations representations of all plant and animal communities. San Bernardino County has a significant number of proposed and completed solar PV projects. As of August 2022, there were eight active renewable energy projects that, if developed, would result in the conversion of an additional 5,380.5 acres[3] of land to utility-scale PV facilities. Past, present and reasonably foreseeable future projects should be accounted for and analyzed in the DEIR to fully understand the impacts to biological resources. The DEIR must include the cumulative analysis of impacts of renewable energy and other projects within the area and provide mitigation measures to avoid, minimize or mitigate for any

[1] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline

[2] Penrod, K., P. Beier, E. Garding, and C. Cabañero. 2012. A Linkage Network for the California Deserts. Produced for the Bureau of Land Management and The Wildlands Conservancy. Produced by Science and Collaboration for Connected Wildlands, Fair Oaks, California.
http://www.scwildlands.org/reports/ALinkageNetworkForTheCaliforniaDeserts.pdf
http://oak.ucc.nau.edu/pb1/.

[3] See https://www.sbcounty.gov/uploads/LUS/Renewable/SolarProjectListAGU_2022.pdf

increase in adverse cumulative impacts associated with the Project.

Conclusion: Thank you again for the opportunity to provide comments on the scope of the DEIR for the Project and for considering our comments. We look forward to reviewing the DEIR and request to be notified when it is available. Please contact us if you would like any additional information or have questions on our comments.

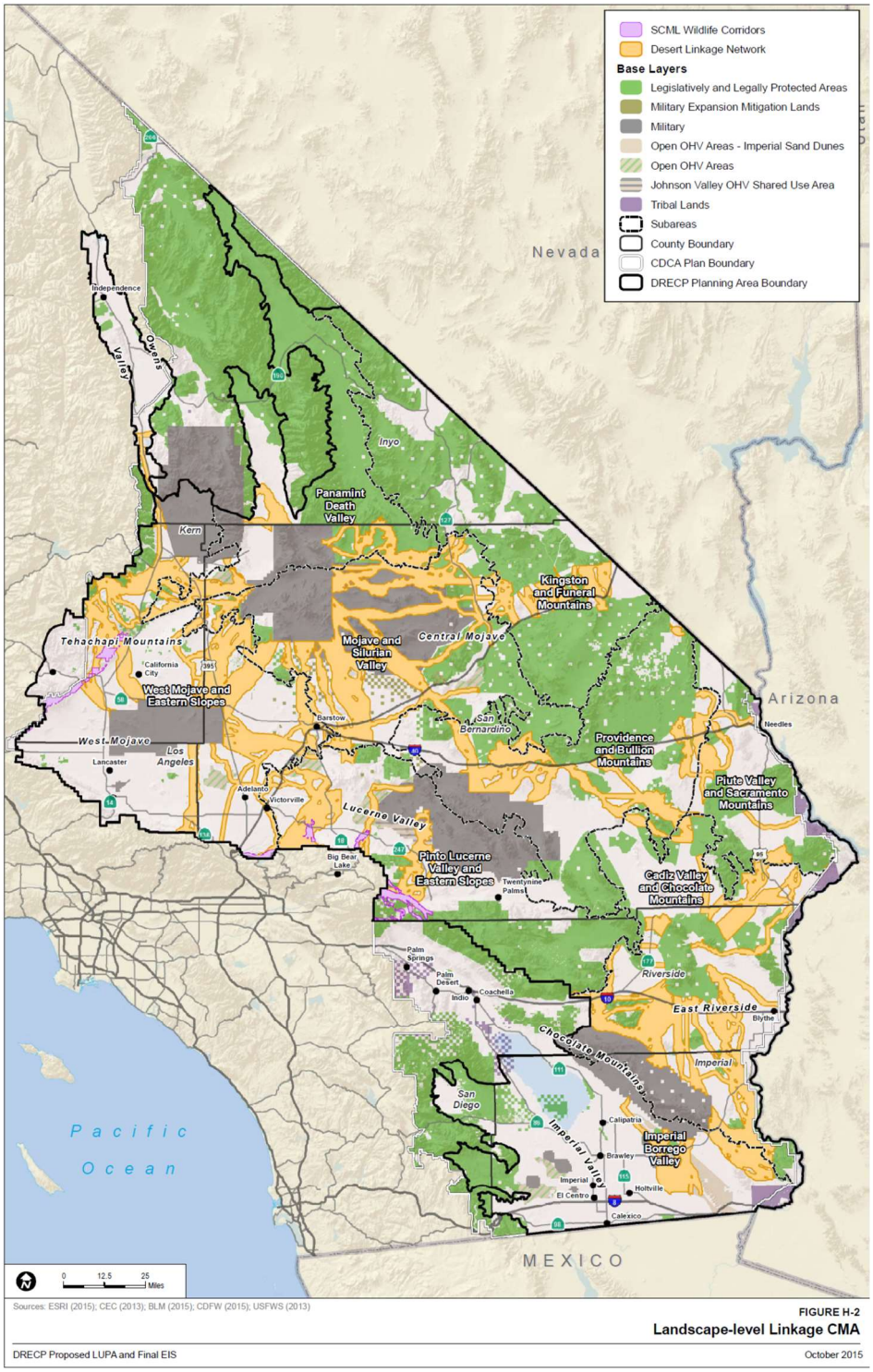
Respectfully submitted,

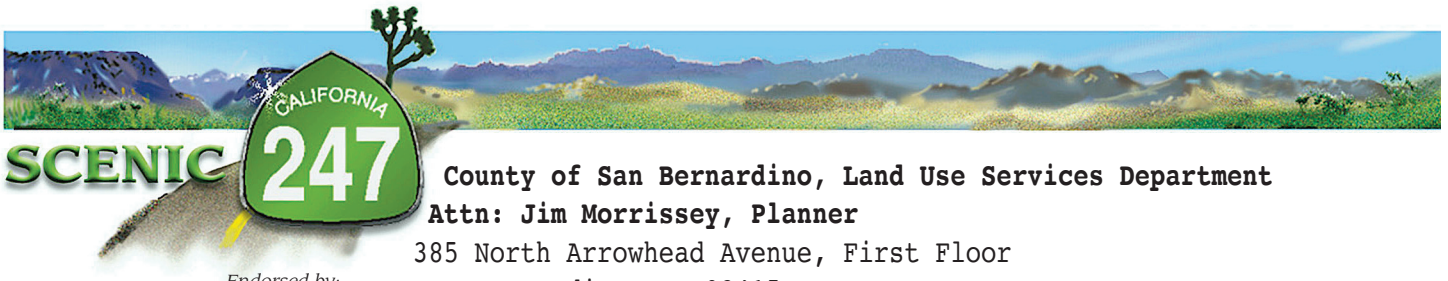
Jeff Aardahl
Senior California Representative
Defenders of Wildlife
jaardahl@defenders.org

Sophia Markowska
Senior California Representative
Defenders of Wildlife
smarkowska@defenders.org

Attachment 1. Final DRECP, Figure H-2, Landscape-level Linkage

Attachment 1. Final DRECP, Figure H-2, Landscape-level Linkage.





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see www.johnsonvalley.com

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dave@kingofthehammers.com

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Morongo Basin
Municipal Advisory Council

Julie Hackbarth-McIntyre
Mayor. City of Barstow

County of San Bernardino, Land Use Services Department
Attn: Jim Morrissey, Planner
385 North Arrowhead Avenue, First Floor
San Bernardino, CA 92415
Email: Jim.Morrissey@lus.sbcounty.gov September 22, 2022

RE: Scoping Comments for Draft EIR Sienna Solar and Storage Project (Sienna 2)

Dear Mr. Morrissey:

As you probably know, the Scenic 247 Committee is lead organization on the County's campaign to seek State Scenic Highway designation for S.R. 247.

We have completed the extensive Visual Assessment, vetted and approved by County Land Use Services and Caltrans.

Our December 2021 presentation to the public meeting of the County Planning Commission Planning was very well received.

We have submitted a draft Corridor Protection Plan. Being finalized right now, this is the final step for County obtaining the State Scenic Highway designation.

Sierra 2 is not compatible with the scenic protections outlined in the Corridor Protection Plan. However, even without official State designation, the highway already has protections:

"The intent of the State Scenic Highway Program is to protect and enhance California's natural scenic beauty. If a highway is listed as eligible for official designation, it is also part of the Scenic Highway System and care must be taken to preserve its eligible status."
—Department of Transportation website
http://www.dot.ca.gov/ser/vol1/sec3/community/ch27via/chap27via.htm#scenic

Ray Desselle, Caltrans Landscape Architect, confirmed at the outset of our campaign:

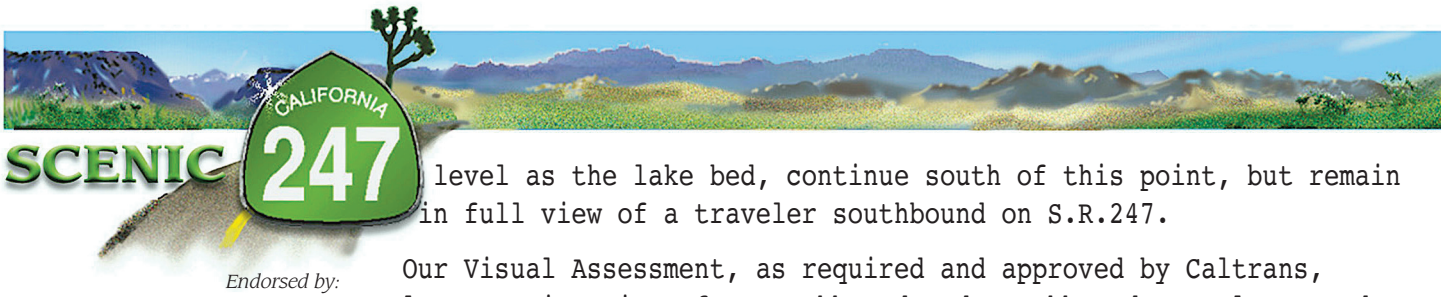
1) The Scenic Corridor includes everything visible from the highway.

2) Official designation changes nothing in already existing codes.

County Land Use Services updated their protections for S.R.247 as a County Scenic Byway to align with Caltrans Scenic Highway guidelines.

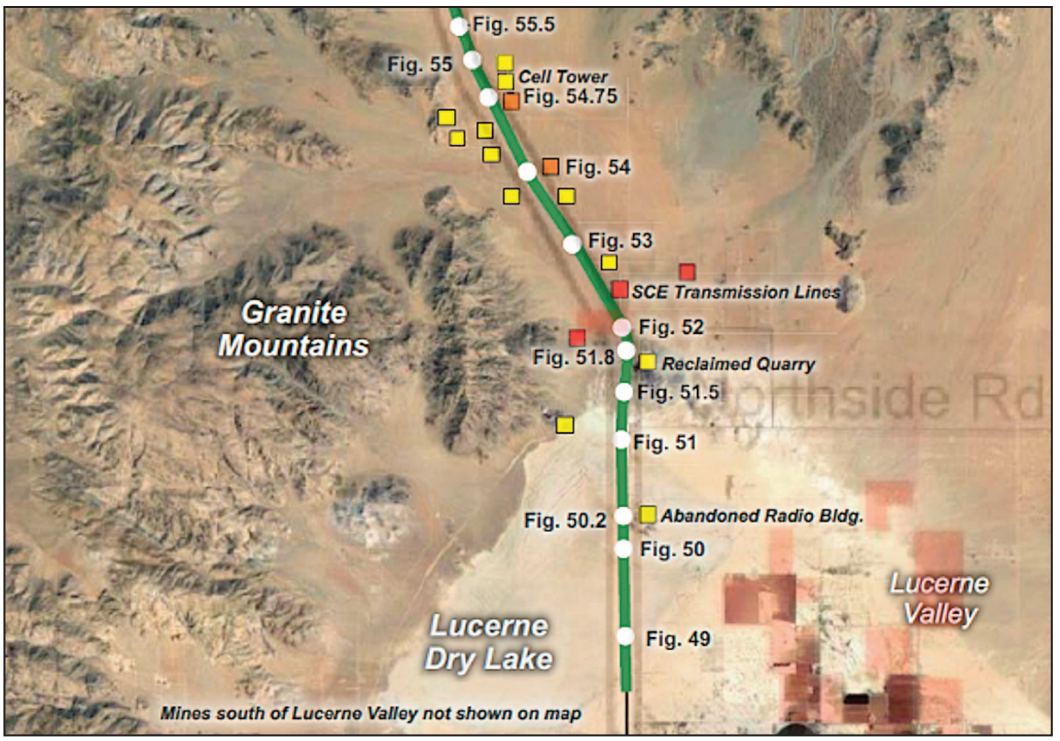
The Sienna project undeniably sits in the 247 scenic corridor.

Section 4 South in our Visual Assessment of segments of S.R. 247 eligible for Scenic Highway status begins with Post Mile 48.5. The vast playa and surroundings of Lake Lucerne, even from the same



level as the lake bed, continue south of this point, but remain in full view of a traveler southbound on S.R.247.

Our Visual Assessment, as required and approved by Caltrans, locates viewpoints for northbound and southbound travelers, and rates scenic resources and intrusions according to percentages by mile. All intrusions are included, whether by the roadside or visible from miles away. The map below shows Section 4 topography, viewpoint locations (Fig. 49, etc.) and intrusions. A quick over-layering of the Sienna 2 site gives you the problem in a nutshell.



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Julie Hackbarth-McIntyre
Mayor. City of Barstow

SCENIC 247 COMMITTEE •
51720 Hacienda Rd.#247, Johnson Valley, CA 92285 • www.scenichighway247.com
A committee of the Homestead Valley Community Council

SCENIC CALIFORNIA 247

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View eastward from Mile 49 – As you can see, Sienna 2 would be assessed as a Major Intrusion.

The relocated Sienna Solar and Storage project location, substation, battery storage, gen-ties with the proposed Calcite substation, as described, have other adverse affects.

Also, We strongly disagree with County Land Use Services position that Sienna 2 is a viable project under Res #2019-17, Sec. 3.

Sienna 2 site lies in full view of most property owners in the unincorporated "disadvantaged" community of Lucerne Valley, a major conflict with the San Bernardino County Renewable Energy and Conservation Element (RECE) Policy 4.10:
"Prohibits utility-oriented renewable energy (RE) project development on sites that would create adverse impacts on the quality of life or economic development opportunities in existing unincorporated communities."

Thank you for your attention,

Betty Munson

Betty Munson,
Chair
760-364-2646

P.S.
Please see Pages 50-59 of the Scenic 247 Visual Assessment, included. Also see the photo on Page 68 (59S) which shows the vista presented to the southbound traveler when descending from Goat Pass. This iconic view across Lucerne Lake also appears on the cover page of all documents we produce.

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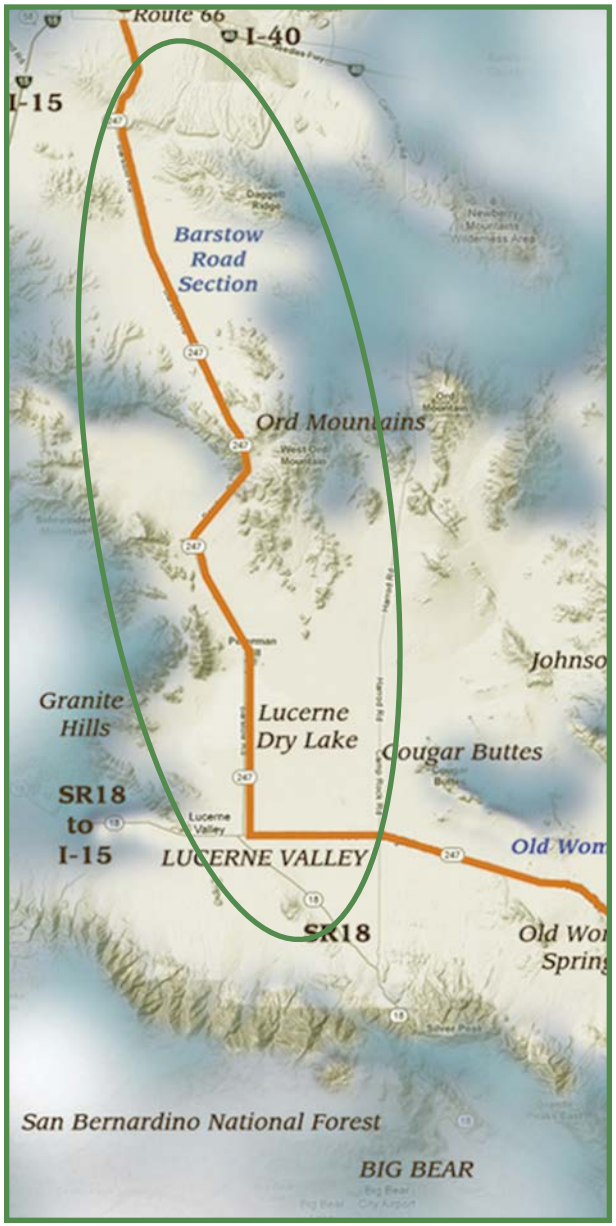
Pages 50-59 and 68
of the
Scenic 247 Visual Assessment

VISUAL ASSESSMENT

Section 4: Barstow Road

PM 48.5 to PM 76 (Length: 27.5 miles)

Percentage of Visual Intrusions within Section: 23.9%



Minor Intrusions: Rural residences and structures, transmission lines at a distance, "water tank" cell tower, Peterman Hill reclaimed quarry, microwave relay station, gas line equipment, signage, distant freeway, distant city and town views.

Moderate Intrusions: Distant mining operations, rural residences and structures close to highway, Slash X Ranch, transmission lines at closer range, landfill.

Major Intrusions: Transmission lines seen at close range.

At approximately PM 48.5 the northbound traveler enters the heart of Lucerne Lake, a dry lake bed occupying the lowest point in the region at 2,851 ft. elevation (Figure 49N). This straight section of highway travels due north.

Lucerne Dry Lake

"PM" = Caltrans numbered Post Mile markers. SR 247 PM 0 stands at the intersection with SR 62 in Yucca Valley. PM 78 intersects Route 66/Interstate15

Lucerne Lake is approximately 3.7 miles by 5 miles in size at its widest point. It is classified as an Endorheic Basin or "closed sea" because it has no outflow to lower elevations. Undrained basins such as these which occur in the desert are also known as "playas."

They are characteristically flat, dry and free of vegetation. Although the dry lake bed may appear to be a featureless plain, playas in general reveal much about climate, past and present. Lucerne Lake last held permanent water at the end of the Pleistocene Epoch, approximately 11,000 years ago. Its beaches show evidence of prehistoric human occupation.

Today, Lucerne Lake may collect a bit of water for brief periods in rainy seasons, before drying out again.

Deep fissures can be observed across the surface of the dry lake bed. They are attributed to the drying out of sediments at depth, due to both ongoing climatic drying of the region and to overdraft of groundwater.

Lucerne Lake is surrounded by the Granite Mountains to the northwest, the Ord Mountains to the northeast, the town of Lucerne Valley and the Bighorn Mountains to the south, and Cougar Buttes and the Fry Mountains in the distance to the east (Figs. 49W, 49E, 49NE, 50NE).

Figure 49N - Scenic View: The northbound traveler passes through the Lucerne Dry Lake bed at PM 49, with the Granite Mountains to the east and the Ord Mountains. ahead and to the west.

Figure 49W - *Scenic View: Looking west across the dry lake bed toward the Granite Mountains, with clay and silt dunes.*

Figure 49E - *Scenic View: Looking east across Lucerne Dry Lake to the craggy Cougar Buttes at a distance of 7 miles, and to the Fry Mountains on the left at a distance of 14 miles. The Bighorn Mountains south of Johnson Valley can be seen on the right.*

Figure 49NE - *Scenic View: Looking northeast across the dry lake bed toward the Ord Mountains, 6 to 15 miles in the distance.*

Figure 50NE - *Scenic View: At PM 50 looking northeast, the traveler is at the edge of the lake bed looking toward the Ord Mountains.*

The unincorporated community of Lucerne Valley might begin to come into distant view for the southbound traveler at about PM 49, with the San Bernardino Mountains beyond. Three active mining operations exist on the north face of the mountain range above Lucerne Valley.

The mines are all regulated under the Surface Mining Control and Reclamation Act (SMCRA) and are slated for restoration to pre-mine conditions when they close. Two of them mine high-quality limestone which is a major component in dozens of everyday products. It is light in color, contrasting with the surrounding mountains. The third mines a material darker in color, and is less visible. The mines are at a distance of 8 to 12 miles from the southbound traveler viewing them from PM 49.

The treeless desert landscape doesn't offer screening of views to the mines. However, because of the great distance, the land use may not be recognizable to travelers from this vantage point. Scenic views in all directions allow the intrusive impact of the mines to recede so they do not dominate the desert panorama. While variation in color on the face of the mountain range may be discernible to the southbound traveler for a driving distance of about seven miles in this section, it isn't until about PM 49 that the land use is classified as an intrusion.

These historic mines are thus classified as a moderate intrusion over a distance of 1/2 mile. The following three images show views of the mines from three different vantage points along the highway (Figs. 49S, 51S, and 56S).

Figure 49S - *Scenic View with Intrusion: The mines on the San Bernardino Mountains above Lucerne Valley become discernible as intrusions at about PM 49 looking south.*

Figure 51S - *Scenic View: The mines on the face of the San Bernardino Mountains above Lucerne Valley, seen at a sufficient distance and with enough other features in the view as to be indiscernible to most visitors looking south from PM 51.*

Figure 56S - *Scenic View: The mines on the north face of the San Bernardino Mountains begin to come into view for the southbound traveler about PM 56, but because of their great distance and the scenic nature of the immediate landscape, they are not yet classified as an intrusion. The foothills of the Granite Mountains are seen near the west side of the highway.*

At PM 50.2, the traveler passes an abandoned radio broadcasting building on the east side of the highway. The single structure is not screened from view, but it is the only structure for miles and the natural landscape dominates. It is classified as a minor intrusion (Fig.50.2E).

Figure 50.2E - *Intrusion: An abandoned radio broadcasting building sits 400' off the highway at PM 50.2 looking east.*

At PM 51, the northbound traveler is at the northern limit of the dry lake. Clumps of Saltbush cover the flat terrain reaching east. Salt Cedar (Tamarisk) grows in spots along the highway.
A collection of rural residences can be seen about a mile from the highway to the east of PM 51. They are not classified as an intrusion (Fig. 51E).

Depending on the light and weather, from approximately PM 50 for the northbound traveler transmission lines may be discernible running along the base of the mountains in the distance two miles to the west. For 1/2 mile traveling in either direction, the lines are classified as a minor intrusion (Figure 51.5W). >>>

At PM 52.2, the three rows of large SCE transmission lines cross the highway. For a stretch of approximately 1/4 mile approaching from either direction, the transmission towers and lines dominate the view and are classified as a major intrusion (Figure 52N). >>>

Figure 51E - *Scenic View: Looking East from PM 51 toward the Fry Mountains 10 to 15 miles in the distance.*

Figure 51.5W - *Scenic View with Intrusion: The scenic Granite Mountains, viewed from PM 51.5 looking west. Creosote bushes begin to populate the landscape. Transmission lines may be discernible running along the base of the mountains at a distance of two miles.*

Figure 52N - *Intrusion: The three parallel SCE transmission lines cross the highway just north of PM 52.*

Figure 53S - *Scenic View with Intrusion: Peterman Hill, viewed as Scenic by the southbound traveler from PM 53. The SCE transmission lines are visible here to the southbound traveler as they cross the highway ahead.*

Figure 51.8SE - *Intrusion: Peterman Hill reclaimed limestone quarry, as seen from PM 51.8 looking southeast.*

Once the traveler passes under the power lines, views are again unobstructed. South of PM 52, the highway bends to the left for the northbound traveler to follow a northwest/southeast direction, splitting from Haynes Rd. which continues north. The lower formation of the Granite Mountains (called White Horse Mountain on the USGS map) comes close to the highway here to the west.

Very close to the east side of the highway at PM 51.5 sits Peterman Hill, a limestone deposit which comes into view for the southbound traveler at PM 59. The scenic peaked shape of the hill appears prominently in the view of the approaching southbound traveler for about 7.5 miles, standing in relief within the vast mostly flat landscape around it. Only upon passing the hill can the traveler see evidence of past mining, with some white scarring which contrasts with the dark color of the rock. This former limestone quarry has been successfully recontoured and reclaimed, and is classified as a minor intrusion for 1/8 mile (Figs. 51.8SE, 53S).

North Lucerne Valley

Figure 53E - *Scenic View: Looking east from PM 53, the traveler views the jagged landforms of the Ord Mountains. Distant rural residences offer a sense of scale to the vast landscape. One home in this area is within a half mile of the highway, not pictured.*

Between PM 52 and PM 56.5, SR 247 travels in a northwest/southeast direction through a landscape gaining in elevation and increasingly dominated by Creosote bushes as one drives north.

At PM 54 the elevation of the highway reaches 3,000 feet and continues to gently climb, bending slightly further northward at PM 55.

The traveler along this stretch of highway is treated to views over the vast Mojave Desert landscape, with its variations in texture, color and light.

Within this remarkably scenic landscape exists a few areas of sparse rural residential development. Some of these residences can be seen in the distance, and are not classified as intrusions. A few of them occur within a half mile of the highway. They are widely dispersed, and the natural landscape dominates. These rural residences are classified as minor intrusions. Some include a number of outbuildings, collections of trailers, vehicles or other reflective objects and are classified as moderate intrusions. Overall, 1.5 miles of this stretch of highway are classified as intruded-upon.

Inset: During mating season the Desert Tortoise migrates toward the water in lakes that are dry for the rest of the year.

The images on pp.59-64, listed below, exemplify the types of built elements that exist along the scenic 4.5 mile stretch between PM 52 and PM 56.5:

Captions for each photo will describe and locate the Scenic View and/or Intrusion.(Figs. 53E, 53W, 53SE, 54E, 54W, 54.75NE, 55N, 55NE, 55SW, 55.5E, 56SE, and 56NW). >>>

Figure 59SW - *Scenic View: Looking southwest toward the Sidewinder and Granite Mountains from PM 59. Wooden power poles approach and cross the highway then travel its flank to the north. The southbound traveler here is descending from a 3,500' elevation.*

Figure 59S - *Scenic View: Looking southeast from PM 59 with the foothills of the Ord Mountains in the foreground to the east, past the Granite Mountains and Peterman Hill in the mid-ground, then over Lucerne Dry Lake to the San Bernardino Mountains beyond.*

JHOLLY RANCH ADULT RESIDENTIAL HOME

35222 SHERMAN WAY

LUCERNE VALLEY, CA. 92356

Date: September 22, 2022

County of San Bernardino, Land Use Services Department

To: Attn: Jim Morrissey, Planner

385 North Arrowhead Avenue, First Floor

San Bernardino, CA. 92415

Email: Jim.Morrissey@lus.sbcounty.gov

Subject: Notice of Preparation of a Draft Environmental Impact Report and Scoping Meeting

Mr. Jim Morrissey

We are located on Sherman Way and Lincoln between Assessor's Parcel Number(s) 0452-121-12 and 42. See highlighted local vicinity map section. We have lived here since 2014. My wife and I are owner operators of a State licensed Home and Vendored by the Inland Regional Center of San Bernardino to house and assist Adults with developmental disabilities from 18-59 years old. We operate and serve our residents at the above address which will be impacted by the Sienna Solar and Storage project if said Parcel Numbers are occupied by Solar Panels.

Our home also will serve as a destination for our other homes soon to open this year. This home will be used to entertain, celebrate major holidays, company meetings, etc.... feed staff, residents, family and friends as we bring everyone together. We have several projects we would like to see realized on this property for the fulfillment of our dream to expand our reach to the disabled persons of our community. Projects like expanding our farm to add more animals, a pound (reservoir to recycle water) for fishing & paddle boating, outdoor kitchen, green house, planting more fruit trees, play-ground area for the disabled families and friends.

However, we feel that the Parcel's stated above if occupied by Solar Panels will inversely impact our property security and health. Examples, our view, the dirt-windstorms which will increase when the dirt is disturbed which will cause road blockage and damage to our vehicles, wear and tear on the home & surrounding structures, people and animals , the glare from the panels to our eyes at certain times of the day, the increased heat from the reflection of the panels, barren vegetation and devoid of wild life, power line location to our proximity which overtime would cause health issues for all living creatures.

We appreciate what this project would accomplish. But we would like you to consider our position and the cost to us if surrounded by these proposed solar panel locations as stated. I

participated in a tour of with Sienna Solar along with other residents of Lucerne Valley which identified parcels of land to be impacted. Camden Rd from Box Rd 0452-062-0452/112-24-0452/112-25-0452/113-17 to Visalia Rd would be excellent parcels to occupy and less exposure to residents, In my opinion.

We desire to continue to be a part of Lucerne Valley for a long time. But if the parcels highlighted in the beginning of this letter our occupied by solar panels, we would have to consider a relocation (moving) and something we thought would never happen.

Please consider our position in this matter.

Sincerely,

Debra Holly (Owner-Co-Owner) and Lee Johnson (Co-Owner)

President / Vice President

Cell # 951-232-8922 / Cell # 951-216-9419