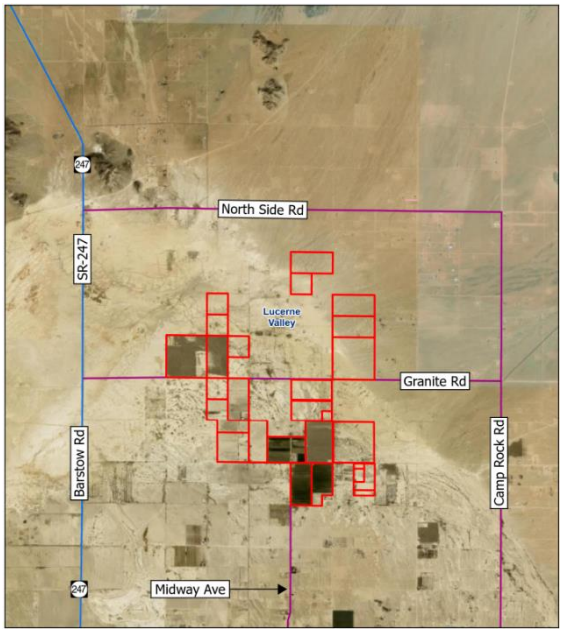
LAND USE SERVICES DEPARTMENT
PLANNING COMMISSION STAFF REPORT

HEARING DATE: October 23, 2025 **AGENDA ITEM # 6**

Project Description

APN: 0452-391-08* et al. (See Project APNs for comprehensive list)
Applicant: Avantus (Jennifer Jackson)
Community: Lucerne Valley
Location: Generally addressed at 33850 Granite Road, Lucerne Valley, CA 92356
Project No: PROJ-2022-00013
Staff: David Mack, AICP, Planner
Rep: Jennifer Jackson
Proposal: Conditional Use Permit to construct and operate a single-axis tracker ground-mounted photovoltaic utility-scale solar facility generating up to 525 MW and battery energy storage system of up to 525 MW on approximately 1,854 acres (27 parcels), with associated gen-tie lines/towers ranging in 39-51.4 miles to the point of interconnection at the future Southern California Edison Calcite substation.

Vicinity Map



Hearing Notices Sent On: October 3, 2025
Report Prepared By: David J. R. Mack, AICP, Contract Planner

SITE INFORMATION
Project Size: 1,854 acres (27 non-contiguous parcels)
Terrain: Vacant Land
Vegetation: Desert related vegetation Mojave Desert scrub.

SURROUNDING LAND USE DESCRIPTION

AREA	EXISTING LAND USE	LAND USE CATEGORY	ZONING DISTRICT
Site	Vacant	Resource/Land Management (RLM) Rural Living (RL-2.5)	Lucene Valley – Agriculture (LV/AG) Lucerne Valley – Rural Living (LV/RL-5)
North	Residential (scattered) Agricultural Vacant	Resource/Land Management (RLM) Rural Living (RL-2.5)	Lucene Valley – Agriculture (LV/AG) Lucerne Valley – Rural Living (LV/RL-5)
South	Residential (scattered) Agricultural Vacant	Resource/Land Management (RLM) Special Development (SD)	Lucerne Valley – Agriculture (LV/AG) Lucerne Valley – Special Development, Residential (LV/AD-RES)
East	Residential (scattered) Agricultural Vacant	Resource/Land Management (RLM) Rural Living (RL-2.5)	Lucene Valley – Agriculture (LV/AG) Lucerne Valley – Rural Living (LV/RL-5)

	AGENCY	COMMENT
City Sphere of Influence:	N/A	N/A
Water Service:	N/A	N/A
Sewer Service:	N/A	N/A

STAFF RECOMMENDATION: That the Planning Commission take the following actions:

1) **Certify** the Final EIR (FEIR) (SCH No. 2022080518) ; and
2) **Adopt** the CEQA Findings, Statement of Overriding Considerations, and MMRP; and
3) **Adopt** the recommended Findings for approval of the Conditional Use Permit; and
4) **Approve** the Conditional Use Permit to construct and operate a single-axis tracker ground-mounted photovoltaic utility-scale solar facility generating up to 525 MW and battery energy storage system of up to 525 MW on approximately 1,854 acres (27 parcels) with associated gen-tie lines/towers ranging in 39-51.4 miles to the point of interconnection at the future Southern California Edison Calcite substation, subject to the conditions of approval; and,
5) **Direct** the Land Use Services Department to file the Notice of Determination in compliance with the California Environmental Quality Act.

In accordance with Section 86.08.010 of the Development Code, the Planning Commission action may be appealed to the Board of Supervisors.

***Project APNs (Solar/BESS facility only – 27 Parcels):**
0452-391-08 (80.02 acres), 0452-391-09 (39.92 acres), 0452-071-10 (80.40 acres), 0452-071-11 (154.90 acres), 0452-071-19 (40.21 acres), 0452-071-20 (40.20 acres), 0452-071-25 (40.21 acres), 0452-062-21 (40.20 acres), 0452-062-22 (76.22 acres), 0452-062-23 (80.45 acres), 0452-062-24 (84.48 acres), 0452-112-20 (70.21 acres), 0452-112-24 (89.90 acres), 0452-112-25 (103.45 acres), 0452-121-12 (80.72 acres), 0452-121-42 (70.85 acres), 0452-121-38 (5.01 acres), 0452-121-39 (12.55 acres), 0452-121-52 (10.19 acres), 0452-121-48 (33.29 acres), 0452-113-17 (151.40 acres), 0452-112-17 (8.83 acres), 0452-112-18 (64.73 acres), 0452-112-19 (73.47 acres), 0452-371-01 (161.27 acres), 0452-361-47 (80.71 acres),0452-361-46 (80.67 acres).

***Project APNs (Gen-Tie Line Routes only – Final route TBD – 271 parcels):**
045-371-101, 045-370-119, 045-369-150, 045-369-119, 045-369-118, 045-369-103, 045-368-101, 045-363-111, 045-363-110, 045-363-109, 045-363-108, 045-362-110, 045-362-109, 045-361-126, 045-361-125, 045-361-124, 045-361-123, 045-361-122, 045-361-109, 045-361-108, 045-360-109, 045-360-108, 045-360-107, 045-360-106, 045-360-102, 045-360-101, 045-330-137,
045-330-136, 045-330-133, 045-330-132, 045-330-131, 045-330-128, 045-330-125, 045-330-124, 045-330-118, 045-330-117, 045-330-115, 045-330-114, 045-330-112, 045-329-153, 045-329-151, 045-329-150, 045-329-148, 045-329-141, 045-329-140, 045-329-121, 045-329-118, 045-329-117, 045-329-116, 045-329-114, 045-329-113, 045-312-326, 045-312-325, 045-312-324, 045-312-322, 045-312-320, 045-312-319, 045-312-317, 045-312-314, 045-312-306, 045-312-229, 045-312-228, 045-312-227, 045-312-226, 045-312-225, 045-309-174, 045-309-173, 045-309-172, 045-309-171, 045-309-170, 045-309-166, 045-309-162, 045-309-158, 045-309-157, 045-309-152, 045-309-151, 045-309-150, 045-309-148, 045-309-145, 045-309-142, 045-309-140, 045-309-131, 045-309-129, 045-309-125, 045-309-112, 045-309-111, 045-309-109, 045-309-107, 045-309-106, 045-309-105, 045-309-104, 045-309-103, 045-308-101, 045-307-148, 045-307-146, 045-307-145, 045-307-144, 045-307-143, 045-307-142, 045-307-115, 045-307-104, 045-307-103, 045-307-102, 045-306-320, 045-306-319, 045-306-317, 045-306-316, 045-306-315, 045-306-314, 045-306-312, 045-306-311, 045-306-310, 045-306-309, 045-306-308, 045-306-307, 045-306-306, 045-306-305, 045-306-303, 045-306-302, 045-306-301, 045-306-267, 045-306-261, 045-306-255, 045-306-253, 045-306-249, 045-306-248, 045-306-239, 045-306-236, 045-306-235, 045-306-230, 045-306-220, 045-306-219, 045-306-218, 045-306-217, 045-306-214, 045-305-125, 045-305-121, 045-305-116, 045-305-114, 045-305-109, 045-305-107, 045-305-106, 045-305-105, 045-305-104, 045-305-103, 045-304-127, 045-304-106, 045-240-130, 045-240-129, 045-240-128, 045-240-124, 045-240-116, 045-240-115, 045-240-114, 045-240-113, 045-240-112, 045-240-108, 045-240-104, 045-239-110, 045-239-109, 045-239-108, 045-238-118, 045-238-116, 045-238-111, 045-238-106, 045-238-103, 045-237-111, 045-237-110, 045-237-108, 045-237-102, 045-235-101, 045-234-145, 045-234-144, 045-234-110, 045-234-109, 045-234-104, 045-234-103, 045-234-102, 045-215-167, 045-215-166, 045-215-154, 045-215-152, 045-215-150, 045-215-130, 045-215-128, 045-215-123, 045-215-118, 045-215-112, 045-215-107, 045-215-106, 045-211-216, 045-211-215, 045-211-214, 045-211-212, 045-211-211, 045-211-210, 045-211-209, 045-211-208, 045-211-207, 045-211-206, 045-211-205, 045-211-204, 045-211-203, 045-211-202, 045-211-201, 045-210-243, 045-210-242, 045-210-241, 045-210-236, 045-210-234, 045-210-218, 045-210-214, 045-210-213, 045-210-212, 045-210-207, 045-210-206, 045-210-205, 045-210-204, 045-210-202, 045-209-226, 045-209-225, 045-209-224, 045-209-223, 045-209-222, 045-209-221, 045-209-220, 045-209-218, 045-209-215, 045-209-214, 045-209-213, 045-209-208, 045-209-207, 045-209-206, 045-209-205, 045-209-203, 045-208-170, 045-208-169, 045-208-168, 045-208-162, 045-208-161, 045-208-160, 045-208-158, 045-208-157, 045-208-151, 045-208-144, 045-208-140, 045-208-139, 045-208-137, 045-208-134, 045-208-133, 045-208-126, 045-208-124, 045-208-121, 045-208-112, 045-208-104, 045-207-167, 045-207-161, 045-207-157, 045-207-154, 045-207-153, 045-207-152, 045-207-150, 045-207-146, 045-207-129, 045-207-126, 045-207-118, 045-207-101, 045-202-105, 045-201-135, 045-201-134, 045-201-118

PROJECT DESCRIPTION:

The Applicant requests approval of a Conditional Use Permit (CUP) to construct and operate a utility-scale photovoltaic (PV) electricity generation facility (Sienna Solar Project or Project). The Sienna Solar Project will produce a maximum of 525 megawatts (MW) of power and include up to 525 MW battery energy storage system (BESS) on approximately 1,854 acres (27 non-contiguous parcels) (**See Figure 4)**.

The Sienna Solar Project consists of three primary components: 1) solar energy generation equipment and associated facilities including an on-site substation and access roads; 2) BESS, and; 3) on- and off-site gen-tie line that would connect the proposed on-site substation to the point of interconnection at the future Southern California Edison (SCE) Calcite Substation.

PROJECT BACKGROUND:

Energy generated by the proposed Project will be transmitted to SCE's electric grid via an inter-connection with the future Calcite Substation. Development of the substation is under the permitting authority of the California Public Utilities Commission (CPUC). Therefore, the SCE Calcite Substation has not been analyzed in depth as part of the County's CUP process. However, the environmental impact report (EIR) prepared for the Sienna Solar Project includes the Calcite Substation, and SCE anticipates utilizing the EIR during their permitting process with the CPUC.

For background information, the future Calcite Substation is located approximately 5 miles northwest of the Sienna Solar Project area, just north of Haynes Road. Once permitted by the CPUC, SCE will construct and operate the facility on a portion of a 75-acre parcel (APN 0453-041-07) along State Route (SR) 247 (Barstow Road). The future Calcite Substation would comprise of the following infrastructure: 1) Calcite Substation; 2) transmission line(s); 3) generation tie-line connection; 4) distribution line for Calcite Substation light and power; and 5) telecommunication facilities. The Calcite Substation is a necessary infrastructure improvement to allow the proposed Sienna Solar and Energy Storage Project to connect to the grid.

In November 2016, 99MT 8me, LLC (applicant) (now Avantus) initially filed a Conditional Use Permit (CUP) application (P201600569 and P201700750) for the proposed Sienna Solar and Storage Project on approximately 1,635 acres west of Highway 247 on the "dry lakebed" approximately 0.5 miles south of Northside Road in Lucerne Valley.

While that application was in process, the County adopted the Renewable Energy Conservation Element (RECE) to the County's General Plan. On August 8, 2017 (Item No. 51), the Board of Supervisors (Board) adopted the RECE, defining County goals and policies related to renewable energy and energy conservation, including policies governing siting and development of renewable energy generation projects. As recommended by the Planning Commission, RECE contained Policy 4.10, which prohibited utility-oriented renewable energy (RE) project (10 MW and greater) in areas zoned Rural Living (RL) or areas within defined community plans. The Board adoption of the RECE excluded Policy 4.10, but the Land Use Services Department was directed to return the siting issue to the Planning Commission for further study and an updated recommendation to the Board.

On May 24, 2018, the Planning Commission conducted a public hearing and recommended that the Board: (1) amend the RECE by adopting Policy 4.10; (2) amend Policy 5.2 to add existing energy generation sites to those identified as suitable for utility-oriented renewable energy generation projects, and; (3) add Policy 5.9 (collaborating with utilities, the California Energy Commission, and the Bureau of Land Management to plan for renewable energy generation facilities to be located on public lands, apart from existing unincorporated communities). Subsequently, on February 28, 2019 (Item No. 1), the Board considered and adopted the Planning Commission recommendation. The Board's Resolution amending the RECE providing the following:

> "The amendments to the [RECE] established herein shall become effective immediately upon adoption of this resolution. Any application for development of a renewable energy generation

> project that has been accepted as complete in compliance with California Government Code Section 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 relocated to other sites under the same policies and regulations."

On October 27, 2020 (Item No. 100), the Board adopted the Countywide Plan amending the County's 2007 General Plan (text and maps) in its entirety with the exception of the previously adopted Housing Element and RECE. The Housing Element and RECE were incorporated by reference into the Countywide Plan.

Pursuant to Policy 4.10, a newly proposed utility oriented RE project is not an authorized use in RL Land Use Districts, unless an application for development of a renewable energy project has been accepted as complete in compliance with California Government Code Section 65943 before the effective date of the resolution. The County issued letters indicating that the CUP applications for the Sienna Solar Project were accepted as complete on August 14, 2017, and February 27, 2018, before implementation and adoption of Policy 4.10. Therefore, the Project is not subject to Policy 4.10 as the application for development was accepted as complete by the County prior to the effective date of the resolution (February 28, 2019) and because renewable energy generating and battery storage facilities were permitted in each of the land use designations at the time of application completeness.

Also, at that time, the Applicant engaged in local stakeholder conversations and received feedback from the community that an alternate location east of Highway 247 would be preferable to reduce the Project's visibility from the Highway. In response to community feedback, the Applicant identified a new location approximately 1-mile east of Highway 247. The Land Use Services Department (Department) supported "re-siting" the Project from its original location in accordance with the Boards authorization that an accepted application may be relocated to other sites and be subject to the same pre-existing policies and regulations, as it would lessen potential impacts to residents, and would not affect the Project's status moving forward. In late 2021, the Applicant submitted an "Amendment" to the CUP application (reference P202200013) to provide Project information associated with the new location, adjusted size (1,854 acres) and initiate environmental compliance. The Department confirmed that no formal or separate "certificate of completeness" would be provided to process the Amendment. The two "Complete Letters" are attached as **Exhibit I and J.**

PROJECT COMPONENTS:

Sienna Solar Facility

The proposed Sienna Solar 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 Sienna Solar Project is predominately located east of State Route 247 (Barstow Road/SR 247), north of the unincorporated community of Lucerne Valley, with portions of the generation-interconnect (gen-tie) alternative corridors that include possible connections along Haynes Road, Huff Road, and Northside Road to the east of Barstow Road. The site comprises several non-contiguous parcels, and 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 **(See Figure 1 and Figure 3)**. Barstow Road and Granite Road would provide primary access to the Sienna Project **(See Figure 2)**. Land uses in the area are primarily rural residential, recreation, farmland, open space, and transportation corridors. Overall, the Sienna Solar facility consists of 27 parcels; **Figure 4** lists the parcels, acreage, and zoning designations of each parcel. The overall site plan, **Figure 5**, shows the general layout of the proposed facility. A complete detailed set of site plans (10 pages) is attached to the staff report as **Exhibit E.**

Battery Energy Storage System (BESS) Details

The Project includes a BESS area, located at or near a substation/switchyard (onsite or shared) and/or at the inverter stations. The overall large-scale BESS would be up to 525 MW in capacity and occupy approximately 45 acres in total. The BESS system will be located in the approximate middle of the overall solar facility, on APN 045-211-218; this area is shown on page 6 of **Exhibit E** (Project Site Plans).

In general, BESS facilities consist of modular and scalable battery packs and battery control systems that

conform to U.S. national safety standards. At this time, the specific brand and model of batteries and racking systems that will be utilized for the BESS area(s) has not been identified, only the general area(s) of location. The specific brand and model of battery packs, racking systems, and wiring will be finalized at the time of system development to allow the most up-to-date and technologically advanced equipment to be utilized.

Gen-Tie and Collector Lines

The Project also includes approximately 39 to 51.3 miles of collector and generation-tie lines (gen-tie) to transmit the generated energy to the future Calcite substation. The Project proposes preferred and alternative gen-tie line routes (**see Figure 3)**; however the final gen-tie line routes and alignments will be determined after project approval and construction, to ensure the most feasible routes are selected and not all routes will be developed. Upon construction, the gen-tie line routes will require installation of transmission line towers to connect the generation facility to the substation site. The anticipated maximum height of the transmission/gen-tie line towers is estimated to be no more than 125 feet in height. While the height of the transmission towers would exceed the height limits (35' and 75') for the County's zoning of the underlying properties, operation and construction of these towers must be consistent with California Public Utilities Commission (CPUC) safety requirements for energy carrying transmission and distribution lines.

Private gen-tie power lines are not identified in the land use tables of the Development Code. The Development Code includes a land use category entitled "Pipeline, transmission lines, and control stations" that acknowledges said uses are regulated and approved by the CPUC pursuant to the alternate review procedures in Section 85.02.050. However, private gen-tie powerlines are not approved by the CPUC (except at the point of change of ownership pole or "POCO") and because they are not expressly regulated by the Development Code, the private gen-tie powerline corridor is being permitted and regulated under the similar and compatible uses requirements of Section 82.02.030(a)(3).

The private gen-tie powerlines are proposed to be 125 feet in height which would normally exceed the maximum height of structures within the Lucerne Valley-Agriculture (LV/AG) and Lucerne Valley-Rural Living (LV/RL-5) zoning designations. However, because this use is being allowed and permitted under the similar and compatible provisions, height standards for "pipeline, transmission lines, and control stations" are controlling, and the CPUC (General Rule 95 and 165) for this similar use allows for utility-related structures to exceed the maximum height allowed in the underlying zoning if the height is necessary to: (1) provide for full operation capabilities of the electrical conveyance of utility facilities; and (2) protect the public. Because the height of the poles and transmission lines are essential to the development of the solar facility and the height is necessary to protect the public, the General Order standards apply. The gen-tie line would serve as the necessary interconnection, allowing the Project's powerlines to connect to the proposed Calcite Substation (to be constructed by SCE at a future time).

Figure 1 REGIONAL LOCATION

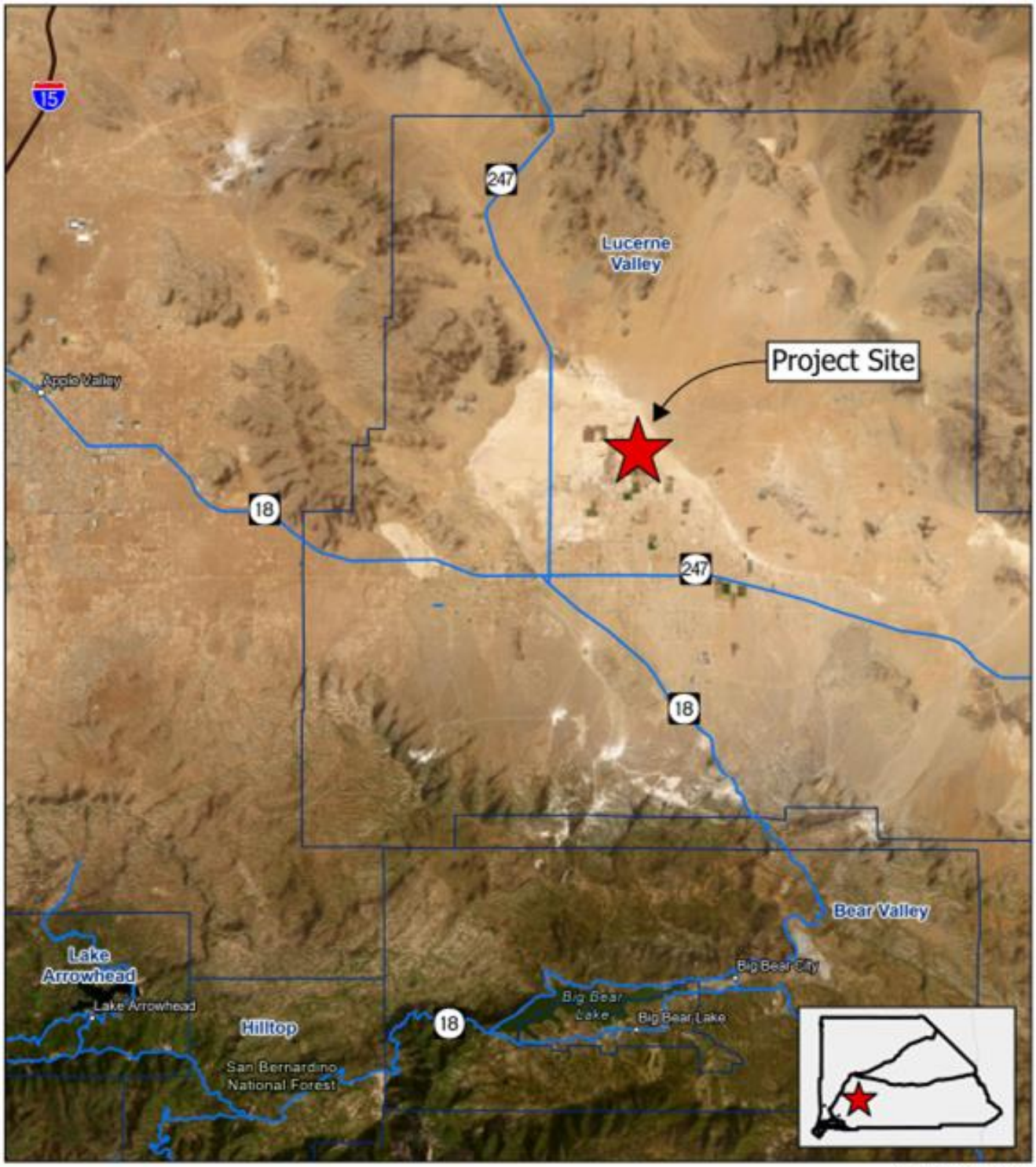


Figure 2 VICINITY MAP

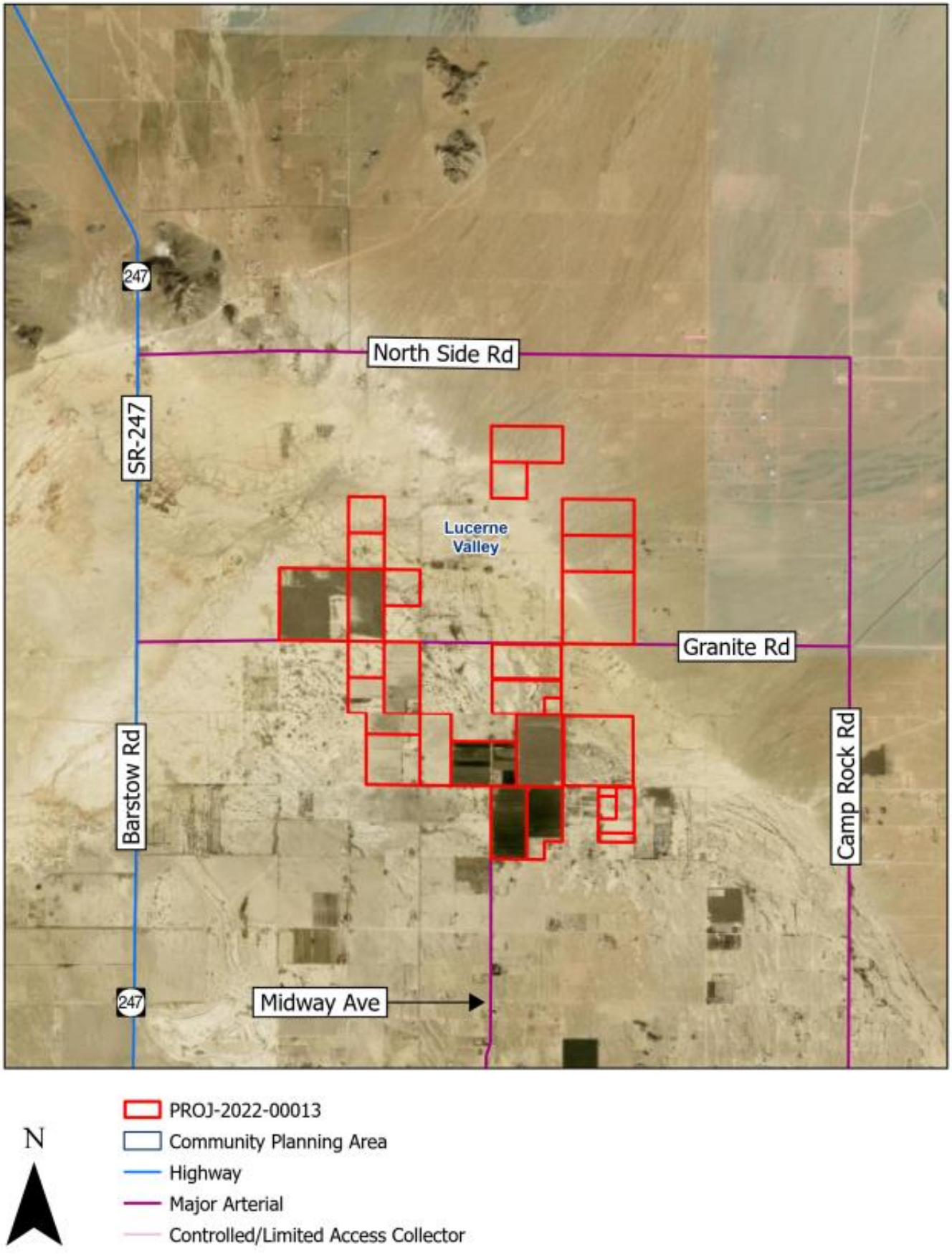


Figure 3 PROJECT LAYOUT

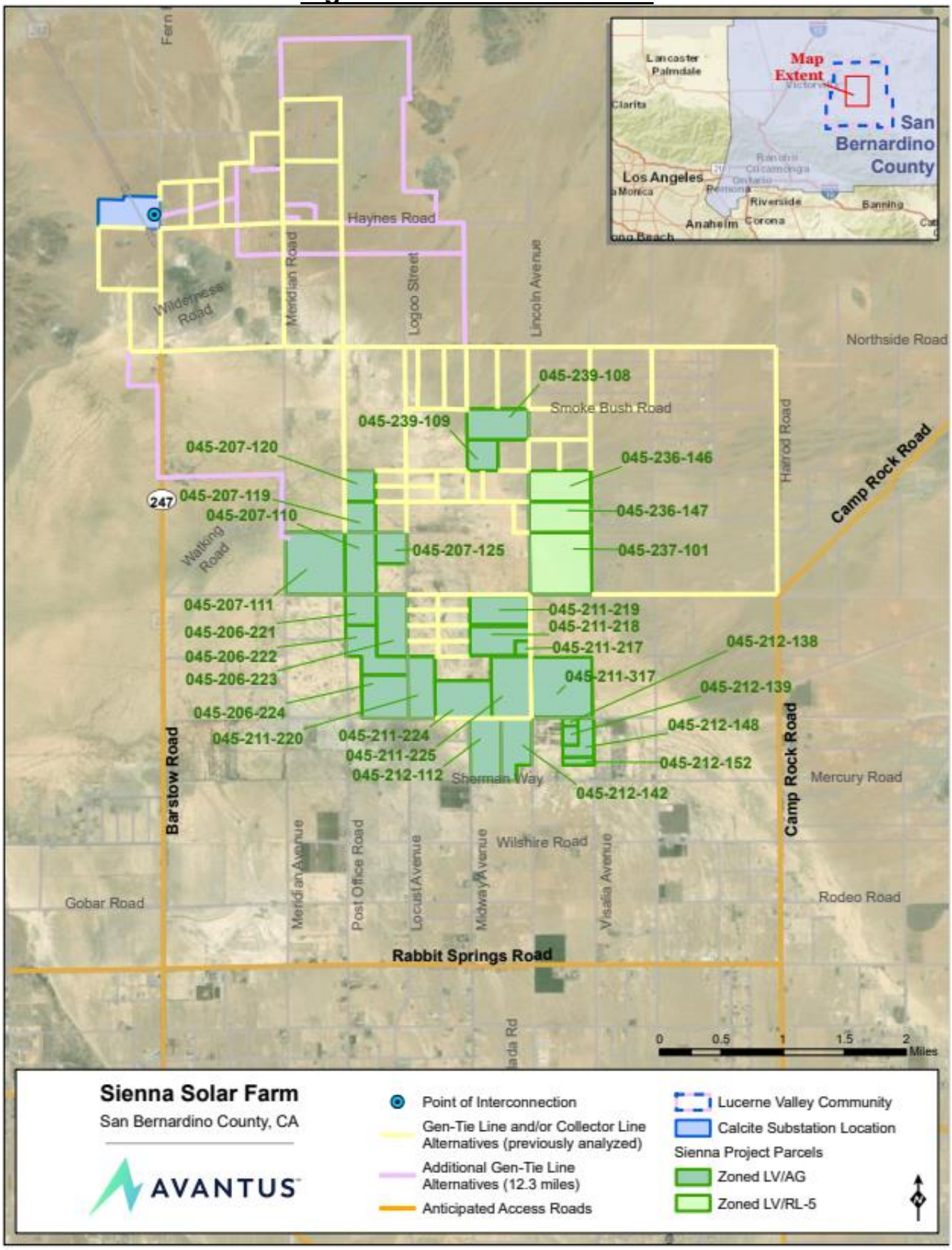
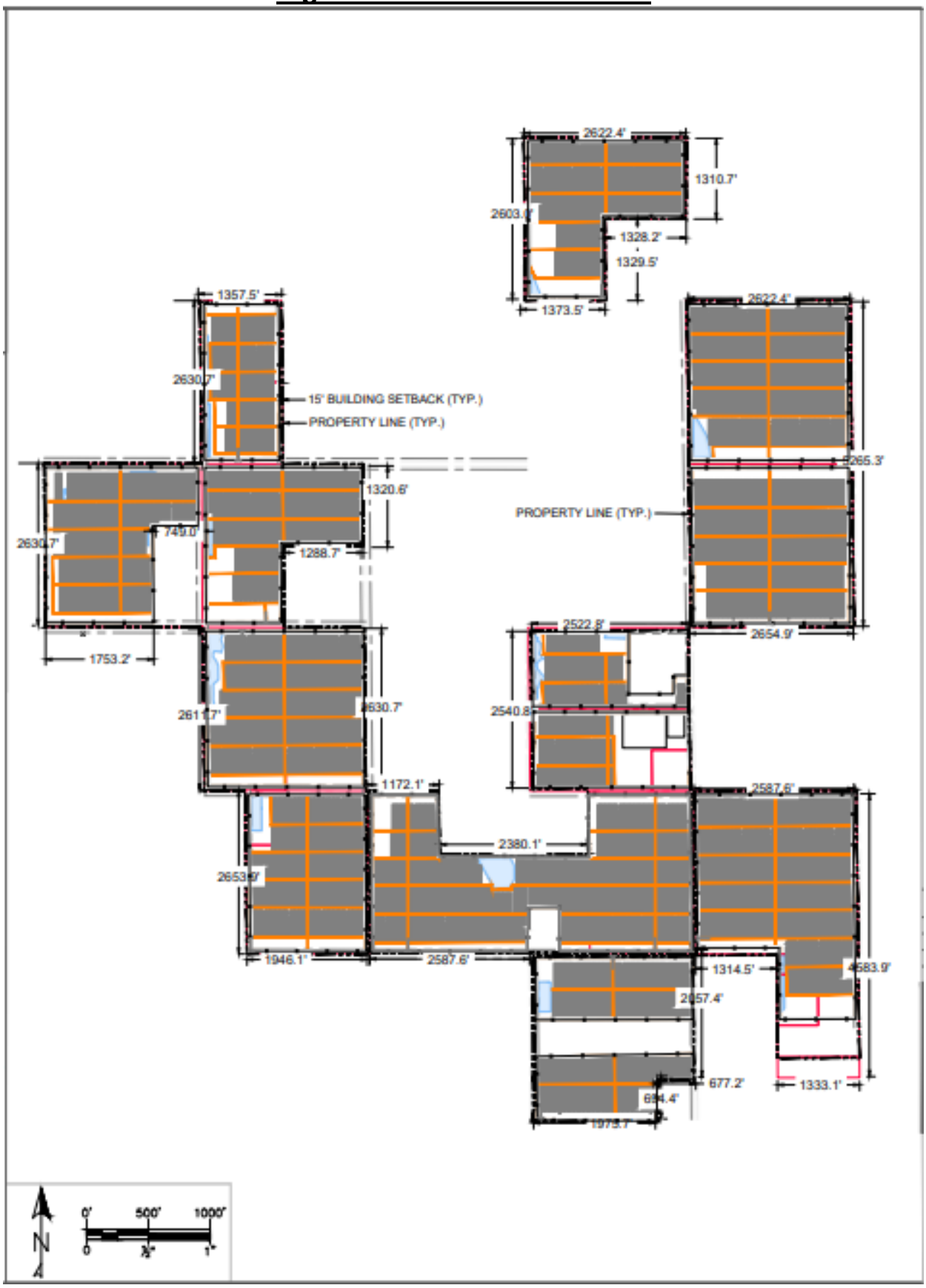


Figure 4 APN & ACREAGE CHART

Number	APN	Gross Acreage	Zoning
1	0452-391-08	80.02	Lucerne Valley–Agriculture LV/AG
2	0452-391-09	39.92	LV/AG
3	0452-071-10	80.04	LV/AG
4	0452-071-11	154.90	LV/AG
5	0452-071-19	40.21	LV/AG
6	0452-071-20	40.20	LV/AG
7	0452-071-25	40.21	LV/AG
8	0452-062-21	40.20	LV/AG
9	0452-062-22	76.44	LV/AG
10	0452-062-23	80.45	LV/AG
11	0452-062-24	84.48	LV/AG
12	0452-112-20	70.21	LV/AG
13	0452-112-24	89.90	LV/AG
14	0452-112-25	103.45	LV/AG
15	0452-121-12	80.72	LV/AG
16	0452-121-42	70.85	LV/AG
17	0452-121-38	5.01	LV/AG
18	0452-121-39	12.55	LV/AG
19	0452-121-52	10.19	LV/AG
20	0452-121-48	33.29	LV/AG
21	0452-113-17	151.40	LV/AG
22	0452-112-17	8.83	LV/AG
23	0452-112-18	64.73	LV/AG
24	0452-112-19	73.47	LV/AG
25	0452-371-01	161.27	Lucerne Valley-Rural Living (5 Acre Minimum) LV/RL-5
26	0452-361-47	80.71	LV/RL-5
27	0452-361-46	80.67	LV/RL-5
Total Acreage		1,854.68	---

Figure 5 SOLAR SITE PLAN[1]



[1] A complete set of the site plan(s), consisting of 10 total pages, is attached to this staff report as **Exhibit E.**

PROJECT ANALYSIS:

Renewable Energy and Conservation Element

The Project is a utility-oriented renewable energy facility. Table 1 of the RECE – entitled "Renewable Energy Generation Categories" provides typical size and acreage guidance for "Neighborhood", "Community", and "Utility-Oriented" solar projects as shown below.

Table 1: Renewable Energy Generation Categories

	Community-Oriented				Utility-Oriented
	Accessory: Site-Oriented		Neighborhood	Community	
Key Traits	Rooftop	Ground-Mounted Accessory			
Typical Use	Accessory structure in support of on-site consumption	Accessory structure in support of on-site consumption	Provides electricity primarily for adjacent use	Provides electricity primarily for local off-site use	Supplies electricity to the transmission grid
Preferred Technology Types	Solar PV and water heater energy systems Geothermal Wind energy systems	Solar PV and water heater energy systems Geothermal Wind energy systems	Solar PV energy systems Geothermal	Solar PV energy systems Bioenergy Geothermal	Solar PV energy systems Bioenergy
Permit Type	Building Permit	Building Permit	Minor Use Permit	Conditional Use Permit	Conditional Use Permit
Approval	Staff	Staff	Zoning Administrator	Planning Commission	Planning Commission
Typical Size	Varies depending on size of facility/ residential roof	Varies depending on on-site needs	Up to 5 acres in total area	Up to 60 acres in total area	More than 60 acres in total area - Limited Sites*
Typical Power Generation	Varies depending on facility/ residence size	Up to approximately 70 kW (standard layout)	Up to approximately 710 kW (standard layout)	Up to approximately 10 MW (standard layout)	More than 10 MW
Notes:	* Limited sites for utility-oriented development are specified in the Development Code				

Utility-Oriented facilities are intended to provide electricity for use within the general electricity transmission grid and are sized to be up to more than 60 acres in size and more than 10 MW of power. The Project proposes a maximum of up to 525 MW solar generation (arrays), and up to 525 MW BESS across 1,854 acres. Based on these parameters, the Project is designed to be consistent with the general provisions of RECE Table 1.

Existing Land Uses and Site Conditions

Existing conditions within the Project area are characterized by a mixture of vacant residential properties, undeveloped playa and desert scrub communities, and agricultural land that includes alfalfa and jojoba farms and large-scale hemp growing operations. Existing land use within the Project area and within the vicinity is primarily rural residential, recreation, farmland, open space, and transportation corridors.

Land Use Designations and Zoning

The Project site is designated as Resource Land Management (RLM) and Rural Living (RL) in the San Bernardino Countywide Plan. The Sienna Project site is located within the boundaries of the Lucerne Valley Community Plan (repealed) and zoned "Lucerne Valley – Agriculture" (LV/AG) and "Lucerne Valley – Rural Living (5 Acre Minimum)" (LV/RL-5). Pursuant to Sections 82.03.040 and 82.04.040 of the San Bernardino County Development Code, the County allows for the development of renewable energy generation facilities on AG and RL land, subject to compliance with the RECE and County approval of a CUP.

Solar System (Array) Details

The 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 tracker mounted systems, the panels will rotate to follow the sun, from east to west over the course of the day and reset back to the eastern orientation each evening. The western most boundary of the Project site is approximately 1.3 miles east of Highway 247, which is eligible for designation as scenic corridor, but has not been adopted as a scenic highway or corridor by either the State of California or San Bernardino County. The County does have plans for such a designation in the future, when this will occur is unknown. Based on the distance from Highway 247 (1.3 miles) and that most drivers would be looking north, the panels are not anticipated to be a visual impact to the general area.

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. Figure 2-10 of the Draft EIR depicts representative examples of photovoltaic panel/mounting configurations. The solar panel array will be arranged in groups referred to as “blocks”, with inverter stations generally located centrally within the blocks. Blocks will produce direct electrical current (DC), which is converted to alternating current (AC) at the inverter stations. Noise levels associated with the operation and movement of panel “blocks” is negligible (small clicking sound) and would not be audible from surrounding properties or roadways.

Each PV module will be placed on a fixed-tilt or tracker mounting structure. The foundations for the mounting structures can extend up to 8 feet below ground, depending on the structure, soil conditions, and wind loads, and may be encased in concrete or use small concrete footings. Final solar panel layout and spacing will be optimized for Project area characteristics and the desired energy production profile.

Battery Energy Storage System Details

The Project includes a BESS area(s), located at or near a substation/switchyard (onsite or shared) and/or at the inverter stations. The overall large-scale BESS would be up to 525 MW in capacity and occupy approximately 45 acres in total. The BESS system will be located in the approximate middle of the overall solar facility, on APN 045-211-218; this area is shown on page 6 of Exhibit D (Project Site Plans).

In general, BESS facilities consist of modular and scalable battery packs and battery control systems that conform to U.S. national safety standards. At this time, the specific brand and model of batteries and racking systems that will be utilized for the BESS area(s) has not been identified, only the general area(s) of location. The specific brand and model of battery packs, racking systems, and wiring will be finalized at the time of system development to allow the most up-to-date and technologically advanced equipment to be utilized.

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 off-taker/power purchase agreement requirements and on County building standards.

The BESS would also consist of an Energy Management System (EMS) and bi-directional inverters. The EMS is responsible for coordinating all subsystems within the BESS and generally controls the net output of solar generation plus BESS at the Point of Interconnection (POI) to prevent overload and charge the BESS exclusively from solar generation.

Balance of System Equipment

The Balance of System (BOS) encompasses all components other than the PV panels. These include the structure on which the modules are mounted, the downstream components that convert the PV module electrical output from DC to AC, and power transformers and the other infrastructure.

Site Access

Site access would be via a new controlled access gates off Barstow Road and Granite Road. Secondary

access will also be available along a variety of existing roadways, including Rabbit Springs Road and Camp Rock Road (highlights below). Access roadways for the Sienna Solar Project would have an aggregate base and be compacted to 85 percent.

Code Compliance Summary:
Exhibit B, Findings – Development Code Regulations for Commercial Solar Facility, discusses in detail the Project's consistency with Section 84.29.035 of the Development Code pertaining to the development of commercial solar facilities. All required evidence for the support of the Conditional Use Permit (7 Findings) and in support of the Solar Facility (31 Findings) is thoroughly discussed in Exhibit B.

California Environmental Quality Act
Due to the scope and scale of the proposed Project as well as the probable potential environmental impacts to the community, the County was able to determine early in the application process that the Project would likely have significant environmental impacts and that an EIR would be the appropriate document to analyze said potential impacts. That being the case, no Initial Study was prepared, consistent with Section 15060(d) of the CEQA Guidelines.

On August 23, 2022, a Notice of Preparation (NOP) was distributed by the County as the lead agency, by which appropriate public agencies and the public were advised that a Draft EIR was being prepared and to invite comments on the scope and content of the document and participation at a public scoping meeting held September 24, 2022. The NOP public review period was from August 23, 2022, through September 22, 2022, consistent with the CEQA-required 30-day comment period.

The Draft EIR (SCH 2022080518) (**Exhibit F**) includes an in-depth evaluation of thirteen (13) environmental resource areas and other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, alternatives, impacts that are less than significant). The thirteen environmental issue areas upon which the EIR focuses include aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use, noise, and transportation and circulation, tribal cultural resources, and utilities and services systems. The County released the Draft EIR to the public on August 30, 2023, for a 45-day review ending on October 16, 2023. During the public review period, all interested persons and organizations had an opportunity during this time to submit their comment on the Draft EIR to the County. The Draft EIR was available for review on the County's website at: https://lus.sbcounty.gov/wp-content/uploads/sites/48/Planning/Draft-EIR-Sienna-Solar-and-Storage-Project.pdf

Subsequent to the conclusion of the Draft EIR and prior to preparation of a Final EIR, major alterations affecting the Sienna Solar Project occurred, which necessitated the need for project revisions and the preparation of a Recirculated Draft EIR (RDEIR). Therefore, a RDEIR for the Sienna Solar project was prepared to inform the public of changes to the DEIR. While CEQA Guidelines Section 15088.5(c) allows that a Recirculated Draft EIR be limited to only those portions of the EIR that require change, this Recirculated Draft EIR follows the same structure and organization of the original Draft EIR.

The major additions and/or changes include:
a. The environmental impacts associated with the proposed Calcite Substation will no longer incorporate by reference the information from the Stagecoach Solar Project Draft EIR (State Clearinghouse No. 2020100234) (California State Lands Commission 2021). The Stagecoach Solar Project Draft EIR was released for public review from October 22, 2021 to December 22, 2021. Since the end of the public review period for the Stagecoach Solar Project Draft EIR, the California State Lands Commission has not certified a Final EIR or made a decision to approve/reject the project.

b. The Project applicant has included an additional 12.3 miles of gen-tie alternatives to be analyzed, which were not previously analyzed in the original Draft EIR.

The RDEIR (**Exhibit G)** was released for public circulation on July 22, 2024, for a period of 45 days, ending on September 9, 2024. During the review period, the RDEIR was available for review on the County's website at: https://lus.sbcounty.gov/wp-content/uploads/sites/48/Planning/Draft-EIR-8.15.24.pdf

Comments received on the RDEIR and subsequent errata have been incorporated into the Final EIR document (**Exhibit H**). The Planning Commission will review and consider the Final EIR and if it finds that the Final EIR is "adequate and complete," may certify it. The rule of adequacy generally holds that the EIR can be certified if it: (1) shows a good faith effort at full disclosure of environmental information; and (2) provides sufficient analysis to allow decisions to be made regarding the project in contemplation of its environmental consequences.

Upon review and consideration of the Final EIR, the Planning Commission may take action to adopt, revise, or reject the proposed Project. A decision to approve the proposed Project would be accompanied by written findings (**Exhibit A**: CEQA Findings of Fact and Statement of Overriding Consideration) in accordance with CEQA Guidelines Section 15091. Public Resources Code Section 21081.6 also requires lead agencies to adopt a Mitigation Monitoring and Reporting Program (MMRP) (**Exhibit D**) to describe measures that have been adopted or made conditions of project approval in order to mitigate or avoid significant effects on the environment. The proposed Conditions of Approval are attached as **Exhibit C**.

The following are summaries of topics/issues of concern addressed in the RDEIR:

Aesthetics: A Visual Resources Assessment was prepared and is discussed in detail in Section 3.2 of the RDEIR. While the Project will certainly be visible to the surrounding community, the Project would not result in significant impacts to scenic vistas or scenic resources. The western most boundary of the Project site is approximately 1.3 miles east of Highway 247, which is eligible for designation as scenic corridor, but has not been adopted as a scenic highway or corridor by either the State of California or the County. The County does have plans for such a designation in the future, however the subject project was deemed complete and the EIR was prepared prior to a formal designation occurring, so there is not impact on scenic resources within or around the project area. While the Project does have the potential to significantly impact the existing visual character or quality of public views of the site and create a new source of light/glare, from a cumulative project perspective, proposed mitigation measures requiring the minimization of nighttime lighting would reduce this potential to less and significant.

Agricultural Resources: Section 3.3 of the RDEIR discussed potential impacts to Agricultural Resources. The Project would not result in significant impacts to agricultural resources. The Project will not result in the conversion of prime farmland, unique farmland, or farmland of statewide importance, nor conflict with existing zoning for agricultural use or a Williamson Act contract. Additionally, the Project does not involve changes in the environment that could result in conversion of Farmland to non-agricultural use.

Air Quality: Section 3.4 of the RDEIR discussed potential impacts to Air Quality. The Project would not result in significant impacts to air quality. The Project would not conflict with or obstruct implementation of an air quality plan or result in a cumulative considerable net increase in any criteria pollutant which is in non-attainment and would not result in other emissions which would affect a substantial number of people. The Project does have the potential to expose sensitive to receptors to pollutants (valley fever). Implementation of a Valley Fever Management Plan, including training sessions for construction workers would reduce this to a less than significant impact

Biological Resources: Section 3.5 of the RDEIR discussed potential impacts to Biological Resources, and potential impacts to sensitive plants and animal species, including desert tortoise, desert kit fox, burrowing owl, nesting birds and raptors, or the habitats associated with these species. Mitigation measures are proposed that would reduce impacts to a less than significant level. Mitigation measures include pre-construction rare plant surveys, biological monitoring, desert tortoise pre-construction surveys, construction working awareness training, desert kit fox pre-construction surveys, burrowing owl pre-construction surveys, nesting bird pre-construction surveys, and avoidance and minimization of identified wetland areas/streams.

Cultural Resources: Section 3.6 of the RDEIR discussed potential impacts to Cultural Resources. The Project would not result in significant impacts to cultural resources. The project would not result in a significant adverse change to historical resources and is not anticipated to disturb human remains. The Project will implement mitigation measures requiring the avoidance of identified sites within the general project area, through identification of resources, installation of buffer fencing, preparation of a Cultural Resources Mitigation and Monitoring Program (CRMMP), archaeological sensitivity training and Worker Education Awareness Programs

(WEAPs), and monitoring agreements with qualified archaeologists and Native American monitor, to reduce potential impacts to a level of less than significant.

Geology and Soils: Section 3.7 of the RDEIR discussed potential impacts to Geology and Soils. The Project would not result in significant impacts to geology and soils. The project will not directly or indirectly cause risk of life, injury or death involving rupture of a known fault, seismic ground shaking, ground failure or liquefaction, or landslides on or off site. The Project will not result in substantial loss of topsoil. The Project is required to prepare final Geotechnical Reports to ensure adequate design and mitigation is undertaken to reduce potential impacts related to potential expansive soil(s), soil bearing capacity, address the potential for soil amendments, soil corrosion of concrete and steel. Additional mitigation is proposed requiring the workers to participate in a Paleontological WEAP to reduced potential impacts to paleontological resources inadvertently discovered. Proposed mitigation measures would reduce impacts to less than significant.

Greenhouse Gas Emissions: Section 3.8 of the RDEIR discussed potential impacts to Greenhouse Gases Emissions. The Project is not anticipated to generate emissions, either directly or indirectly that would have significant impacts on the environment, or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. No mitigation is proposed, and impacts are anticipated to less than significant.

Hazards and Hazardous Materials: Section 3.9 of the RDEIR discussed potential impacts to Hazards and Hazardous Materials. The Project is not anticipated to create a significant impact through the routine transport, use, disposal, or release of hazardous materials into the environment. The Project is not located within one-quarter mile of an existing or proposed school. The Project site is not on a list of hazardous materials site(s). The Project is not within two miles of a public or private airstrip/airport and will not interfere with an adopted emergency response or evacuation plan. No mitigation measures are recommended, and potential impacts will be less than significant.

Hydrology/Water Quality: Section 3.10 of the RDEIR discussed potential impacts to Hydrology/Water Quality. The Project is not anticipated to violate water quality standards or waste discharge requirements, decrease groundwater supplies or interfere with groundwater recharge, alter existing drainage patterns on the site or within the area, nor increase the amount of surface run-off that would result in flooding erosion, siltation or flooding on or off site. The Project would not create or contribute to runoff that would exceed existing drainage systems or provide substantial sources of polluted runoff or impede or redirect flood flows. The Project is not located in a flood hazard, tsunami or seiche zone. The project would not conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan. No mitigation measures are recommended, and potential impacts will be less than significant.

Land Use and Planning: Section 3.11 of the RDEIR discussed the potential impacts to Land Use and Planning. The Project will not physically divide an established community, nor conflict with any land use plan, policy or regulation adopted to avoid, reduce or avoid environmental effects. No mitigation measures are recommended, and potential impacts will be less than significant.

Noise and Vibration: Section 3.12 of the RDEIR discussed the potential impacts to that could result from Noise and Vibration. The Project would not generate excessive groundborne vibration or noise levels and is not located within vicinity (2 miles) of a private or public airstrip. There is not an airport land use plan adopted within the Project area, and the Project would not expose people residing or working in the project area to excessive noise levels. Noise and vibration could be generated through short-term construction impacts; however, mitigation is proposed to employ noise reducing measures throughout construction. The mitigation measure requires all contractors to reduce noise levels, by implementing several measures, including but not limited to, electric powered equipment instead of internal combustion equipment, limit earthmoving equipment to daytime hours, limit construction activities to daytime house, and use of temporary noise barriers (8-foot height) when construction could be located near sensitive receptors. With implementation of the recommended mitigation measure, potential impacts will be less than significant.

Transportation: Section 3.13 of the RDEIR discussed the potential impacts that could result from

Transportation related activities. The Project would not generate traffic levels that would vehicle miles traveled (VMT) thresholds, as the solar facility, once constructed would ne un-manned and not generate daily traffic trips. The Project would not conflict with a program, plan, ordinance or policy addressing circulation systems, would not increase hazards due to a geometric design feature or other incompatible uses (i.e. farm equipment), and would not result in adequate emergency access in the surrounding area(s). However, a mitigation measure requiring the development and implementation of a Construction Traffic Management Plan is recommended. The Construction Traffic Management Plan requires: the project contractor to notify property owners within 1 mile of the Project site, at least 15 days prior to start of ground disturbance; staggering of shifts for construction workers; coordination for park and ride carpooling with the communities of Victorville, Apple Valley, and Barstow; use of flaggers, warning lights, barricades, cones, etc., at key locations; installation of signage along the east and west shoulder of SR 247 at Sunset Road, Sunrise Road, and Rabbit Springs Road; notify CalTrans, CHP and County of anticipated oversize equipment prior to use; and coordination with San Bernardino County Fire Protection District and Sheriff's department prior to any roadway disruptions, areas of congestions, and roadway blockages, if any are anticipated. Implementation of the recommended mitigation measure will reduce potential impacts to less than significant.

Tribal Cultural Resources: Section 3.14 of the RDEIR discussed potential impacts to Tribal Cultural Resources. The Project will cause a substantial adverse change in the significance of tribal cultural site, feature, place or cultural landscape, scared place or object with cultural value to a California Native American tribe. Implementation of mitigation measures recommended under the Cultural Resources analysis, in combination with two additional mitigation measures recommended in this section requiring coordination and notification with native tribe(s) (Yuhaaviatam of San Miguel Nation or YSMN) if pre-contact cultural resources are inadvertently discovered during implementation of the Project. The mitigation measure requires suspension of ground disturbing activities for a minimum of 60-feet around the resource, evaluation by a qualified archaeologist, tribal monitoring, and the desire to avoid and preserve in place and/or on-site reburial (where feasible).

Mitigation Measures also require all archaeological/cultural documents created as part of the Project to be supplied to County and for dissemination to the YSMN. Implementation of the mitigation measures will reduce potential impacts to less than significant.

Utilities and Service Systems: Section 3.15 of the RDEIR discussed potential impacts to Utilities and Service Systems. The Project will not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities. The project does not require long-term water supplies to operate and will not result in a determination by wastewater provider to exceed capacity. The Project will not generate solid waste and will comply with federal, state, and local management and reduction statutes related to solid waste. No mitigation measures are recommended, and potential impacts will be less than significant.

Cumulative Impacts: Chapter 5 of the RDEIR addresses cumulative impacts which could result from Project implementation. To be conservative, the RDEIR utilized a radius of 10-miles to capture proposed and existing development throughout the Lucerne Valley. Table 5-1 detailed all projects within the 10-mile radius (both solar and non-solar) which accounts for 8 individual project sites. Five (5) of the detailed project are either already completed or in construction at the time of circulation (SCE Eldorado Pisgah-Lugo Project – transmission line reconductoring; Marathon Solar – 152 acres/20MW; Agincourt Solar – 80 acres/10MW; Monastery – 14,165 SF monastery residence on 117 acres; SCE Eldorado-Lugo Mojave Capacitor Project – replace of wiring and repeaters on transmission towers); and two (2) of the projects are also utility-scale solar (prior to 2019) projects subject to CEQA document circulation but have been placed on hold by the Applicant (Ord Mountain and Energy Storage – 484 acres/80MW; and Calcite Solar I – 664 acres/100MW); the other project is "under review" but has been inactive since 2017 (Camp Rock Solar Farm LLC – 20 acres/4MW).

If all solar projects above were developed, in addition to the Sienna Solar facility (1,854 acres/525 MW), considering solar arrays are generally placed in areas that are vacant, flat and undeveloped, travelers along SR 247 (a State-Eligible and County-Eligible Scenic Highway) the desert landscape could be substantially degraded from man-made features. Therefore, the cumulative impact for Aesthetics is considered a

cumulatively considerable impact and would result in a significant and unavoidable impact. CEQA requires that for significant effects deemed infeasible to mitigate, the agency must find that the project's economic, legal, social, technological, or other benefits outweigh the environmental impacts**.**

No other impact section was determined to be a considerable impact under cumulative scenarios.

CEQA Summary

After thorough study and environmental review, as provided in the Final EIR, it was determined that Project-level impacts would not result in any significant and unavoidable impacts. All potentially significant impacts, after implementation of proposed mitigation measures, would be reduced to a less than significant level. However, as described in Chapter 5.0 of the EIR, Cumulative Impacts, although cumulative projects located within private lands and/or under the jurisdiction of the County would be designed in accordance with the County's Policy Plan and Development Code, which includes policies and regulations to protect visual resources in the County, for many travelers along SR 247, the scenic experience would be substantially degraded due to the perceived addition of new man-made features to the landscape. The utility-scale size of the Sienna Project would contribute to this cumulatively considerable aesthetic impact. This contribution is considered significant due to the large area (1,854 acres) proposed for solar development and associated gen-tie lines in the context of the valley. This is considered a cumulatively considerable impact and would result in a significant and unavoidable impact. A Statement of Overriding Consideration is included (included in **Exhibit A**) for the Planning Commission's consideration supporting how the Project's overriding benefits outweigh the adverse environmental effects.

The County finds that the following eight (8) economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits of the Sienna Project, individually and collectively outweigh the potentially significant unavoidable cumulative adverse impact to Aesthetics:

a. The Sienna Project would use proven and established PV and energy storage technology that is efficient and requires low maintenance to establish a solar facility capable of producing approximately 525 MWs of reliable electricity, and up to 525 MWs of energy storage capacity, and help meet the increasing demand of the State of California for clean, renewable electrical power at a competitive cost.

b. The Sienna Project would assist the State of 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.

c. The Sienna Project would 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.

d. The Sienna Project would interconnect directly to the SCE electrical transmission system, and would enhance electrical distribution infrastructure and provide greater support to existing and future customer loads to ensure Southern California Edison can provide power to all customers, including customers in San Bernardino County

e. The Sienna Project would promote the County's role as the State's leading producer of renewable energy.

f. The Sienna Project would utilize a location that is in close proximity to existing powerlines and the proposed SCE Calcite Substation and would minimize environmental effects by locating generating facilities in areas which receive intense solar radiation; minimizing water use; and reducing greenhouse gas emissions.

g. Sienna Project construction would generate up to 550 jobs during peak construction periods, and approximately 15 full time jobs during operation, which would provide increased business for local contractors and vendors.

h. The Sienna Project pay property taxes and fees to the General Fund for the benefit of San Bernardino County.

Public Comments:
Project Hearing Notices were sent to surrounding property owners within 1,320 feet of the Project site, as required by Development Code Section 84.29.040(f)(1). Notices were also sent to all interested parties, EIR commenters, including state and local agencies. At the time of staff report publication, seven (7) comment letters (**Exhibit K**) were received from residents, organizations and responsible agencies pursuant to mailing of the project hearing notices. Six (6) letters are in support of the project. One (1) letter is from the Mojave Desert Air Quality Management District (MDAQMD) and reiterates the permits the applicant will need to obtain from MDAQMD to construct and operate.

RECOMMENDATION: That the Planning Commission:

1) **Certify** the Final Environmental Impact Report (SCH No. 2022080518) prepared for the project; and
2) **Adopt** the California Environmental Quality Act Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program; and
3) **Adopt** the recommended Findings for approval of the Conditional Use Permit; and
4) **Approve** the Conditional Use Permit to construct and operate a single-axis tracker ground-mounted photovoltaic utility-scale solar facility generating up to 525 MW and battery energy storage system of up to 525MW on 1,854 acres (27 non-contiguous parcels) with associated gen-tie lines/towers ranging from 39-51.4 miles to the point of interconnection to the future Southern California Edison Calcite substation, subject to the conditions of approval; and,
5) **Direct** the Land Use Services Department to file the Notice of Determination in compliance with the California Environmental Quality Act.

ATTACHMENTS:

Exhibit A: CEQA Findings, and Statement of Overriding Considerations,
Exhibit B: Findings for Conditional Use Permit
Exhibit C: Conditions of Approval
Exhibit D: Mitigation Monitoring and Reporting Plan
Exhibit E: Sienna Solar Site Plan (10 pages)
Exhibit F: Sienna Solar Draft EIR
https://lus.sbcounty.gov/wp-content/uploads/sites/48/Planning/Draft-EIR-Sienna-Solar-and-Storage-Project.pdf
Exhibit G: Sienna Solar Recirculated Draft EIR
https://lus.sbcounty.gov/wp-content/uploads/sites/48/Planning/Draft-EIR-8.15.24.pdf
Exhibit H: Sienna Solar Final EIR (3 links)
https://lus.sbcounty.gov/wp-content/uploads/sites/48/Volume-I_Final-Environmental-Impact-Report.pdf
Volume-I_Final-Environmental-Impact-Report_Technical-Appendices-Compressed-file.pdf
Volume-II_Responses-to-Comments-Compressed-file.pdf
Exhibit I August 14, 2017, Completeness Letter – John Oquendo, Senior Planner.
Exhibit J February 27, 2018, Completeness Letter – Chris Warrick, Senior Planner.
Exhibit K Public Comments

1. Davd and Ann Scheppers – Letter of Support – dated May 5, 2025
2. Mojave Desert Air Quality Management District – dated October 15, 2025.
3. Lucerne Valley Chamber – Letter of Support – dated August 25, 2025.
4. IBEW Local Union 477 – Letter of Support – dated April 29, 2025.
5. Christian Orozco Del Real – Letter of Support – dated May 9, 2025.
6. Iron Workers Local 433 – Letter of Support (1) – dated April 30, 2025.
7. Iron Workers Local 433 – Letter of Support (2) – dated May 21, 2025.