

**VISUAL IMACT ASSESSMENT
FOR
GLACIER POWER AND GAS SOLAR PROJECT
SAN BERNARDINO COUNTY**

Submitted to:

**County of San Bernardino
Land Use Services Department
385 North Arrowhead Avenue
San Bernardino, CA 92415-0182**

Prepared by:



1905 Business Center Drive
San Bernardino, CA 92408
(909) 890-1818

March 2024

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 PROJECT DESCRIPTION.....	1
2.1 Project Location	1
2.2 Existing Settings.....	1
2.3 Proposed Project.....	4
2.4 Project Characteristics.....	4
3.0 EXISTING VISUAL SETTING.....	7
3.1 Project Site	7
3.2 Adjacent Area.....	11
4.0 VISUAL IMPACT ASSESSMENT	11
4.1 Overview	11
4.2 Visual Resource Management Objective	11
4.3 BLM’s Visual Resource Inventory	12
4.4 Visual Resources Class IV Objective	12
4.5 Key Observation Points.....	12
4.5.1 Existing Visual Setting from KOPs	13
4.6 Contrast Rating Process	13
4.6.1 Contrast Rating Worksheets	16
4.7 Visual Impacts By KOP	16
4.7.1 KOP-1 – Worksheet 1	16
4.7.2 KOP-2 – Worksheet 2	17
4.7.3 KOP-3– Worksheet 3	17
4.8 Conclusions and Recommendations	18

LIST OF FIGURES

1 Regional Location Map.....	2
2 Vicinity Map	3
3 Site Plan	5
4 Detail of Solar Panel	6
5 Location of KOPs	14

Attachment A Visual Contrast Rating Worksheets

1.0 INTRODUCTION

Lilburn Corporation was contracted by the applicant to prepare this Visual Impact Assessment of the proposed Glacier Power and Gas Solar Project (“Proposed Project”). The Applicant is requesting a Conditional Use Permit for the construction and operation of a 10-megawatt solar photovoltaic energy facility on an approximate 24.12-acre site located in the unincorporated community of Yermo within San Bernardino County.

This visual impact assessment was prepared pursuant to the California Environmental Quality Act (CEQA) to identify and address any potentially significant visual impacts that may result from approval and construction of the proposed Project. This assessment is based on the approved visual assessment practices as employed by the U.S. Bureau of Land Management. In summary, the methodology includes the following tasks:

- Defining the project and its visual setting;
- Identifying sensitive viewpoints for assessment;
- Analyzing the baseline visual quality and character of the identified views;
- Depicting the visual appearance of the project from identified views;
- Assessing the project’s impacts to those views in comparison to their baseline visual quality and character, and;
- Proposing methods to mitigate any potentially significant visual impacts identified.

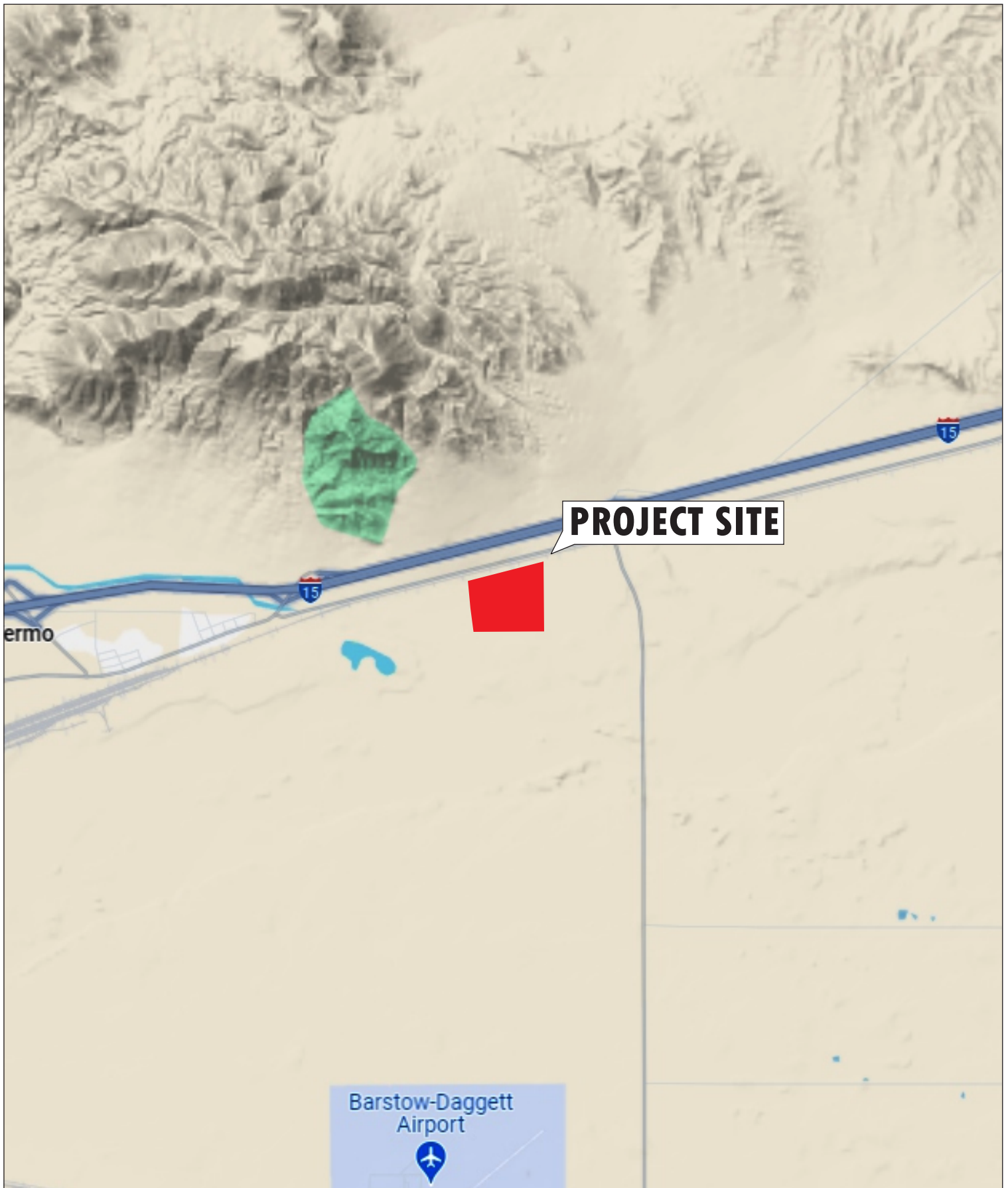
2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The Project Site is located approximately 0.2 miles south of the I-15 Freeway (I-15) in the unincorporated community of Yermo in San Bernardino County (see Figure 1, Regional Location). An approximate 3.5-mile segment of I-15 is designated a State Scenic Highway. The 3.5-mile segment is located approximately 1.5 miles northwest of the Project Site. The 24.12-acre Project site is located on the southeast corner of Minneola Road and Calico Boulevard (see Figure 2 – Vicinity Map). The Project Site is designated Resource Conservation/Resource Land Management and is within the Military Influence Zone Overlay and Airport Safety & Planning Overlay of the San Bernardino Countywide Plan.

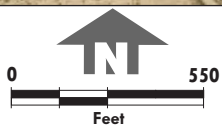
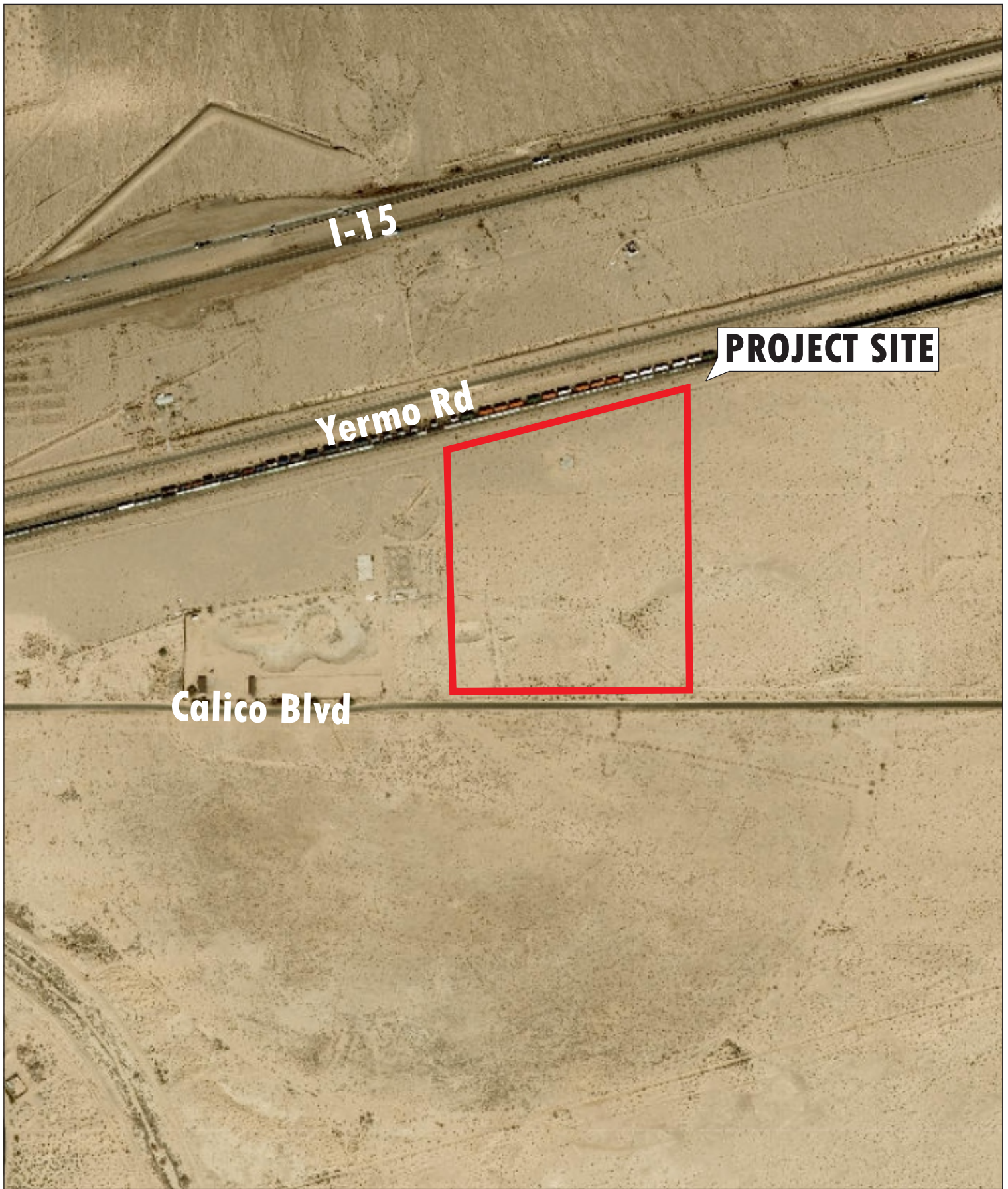
2.2 EXISTING SETTING

The Project Site and surrounding area occur in a rural desert environ with scattered development. The Project Site is currently vacant and consists of desert shrubs that cover about 35 percent of the site. Power poles run the length of the southern property boundary. The Project Site is relatively flat with an elevation range between 1900 feet near the southeast corner to 1914 feet along the northern property boundary. Access to the Site is provided by Calico Boulevard, a paved road with no other improvements (i.e., curb and gutter, sidewalks, landscaping or streetlighting). Surrounding land uses include the Union Pacific Railroad (UPRR), vacant land,



REGIONAL LOCATION
Glacier Power and Gas Solar Project
San Bernardino County, California

FIGURE 1



LILBURN
CORPORATION

PROJECT VICINITY
Glacier Power and Gas Solar Project
San Bernardino County, California

FIGURE 2

and rural residential to the north, rural residential and vacant land to the south, and vacant land to the east and west. A gated residential community occurs approximately 0.75-miles southwest of the Project Site.

During a site visit conducted in October 2023, remnants of building foundations, debris piles composed of wood, metal, tires, and plastics were on the site.

2.3 PROPOSED PROJECT

The Applicant (Sol-Gen) is requesting approval of a Conditional Use Permit (CUP) to allow for the construction and operation of a 10 megawatt (MW) photovoltaic solar energy-generating facility. The solar arrays would be constructed in four quadrants with internal roads between quadrants to allow for access and maintenance. The facility would be protected by an 8-foot-high chain link fence around the perimeter of the Site with one entry gate. Access to the Site would be provided by a driveway along Calico Boulevard. The Project includes construction of a new road along the eastern boundary of the Project Site (see Figure 3 – Site Plan). The Project would include eight parking spaces and a 20-foot by 20-foot electric meter near the southwest corner of the Project Site. The Applicant would be required to enter into a Development Agreement with SCE to connect to the existing grid.

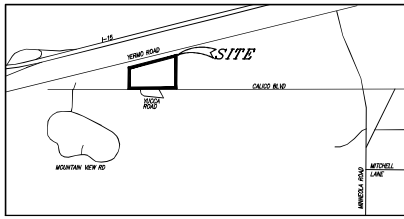
2.4 PROJECT CHARACTERISTICS

Some visual impacts are inevitable with any solar project. Reducing or minimizing negative impacts can be achieved in a number of ways, such as a well-sited and designed project, buffers and screening. If there appear to be significant visual impacts resulting from the Project, additional mitigation approaches can be used to reduce impacts. Design features incorporated into the Proposed Project include the following:

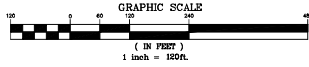
- *Appropriate Siting:* This design feature involves avoiding a site that appears very prominent throughout a region. Selecting a site that can comfortably accommodate the project without visually overwhelming sensitive scenic resources on or near the site and the region.
- *Infrastructure Design:* The Project includes undergrounding electrical lines.

The Proposed Project consists of the placement of solar arrays, internal access roads, fencing, electrical transformers and other miscellaneous connecting infrastructure. The perimeter and interior gravel access roads would surround each of the four sections of solar arrays. The photovoltaic panels will face due west and be mounted on dual axis tracking arrays. The panel spacing will allow optimum collection of solar energy and provide access for maintenance. (Refer to Figure 4) for an example of a typical solar panel. Equipment would include the following:

- Solar modules (5'5" wide by approximately 4 feet in height), 2500 watt and 400 panels mounted on linear trackers.
- 10 inverters (approximate 8-foot wide by 7.5-feet in height)



VICINITY MAP
N.T.S.



PLOT PLAN

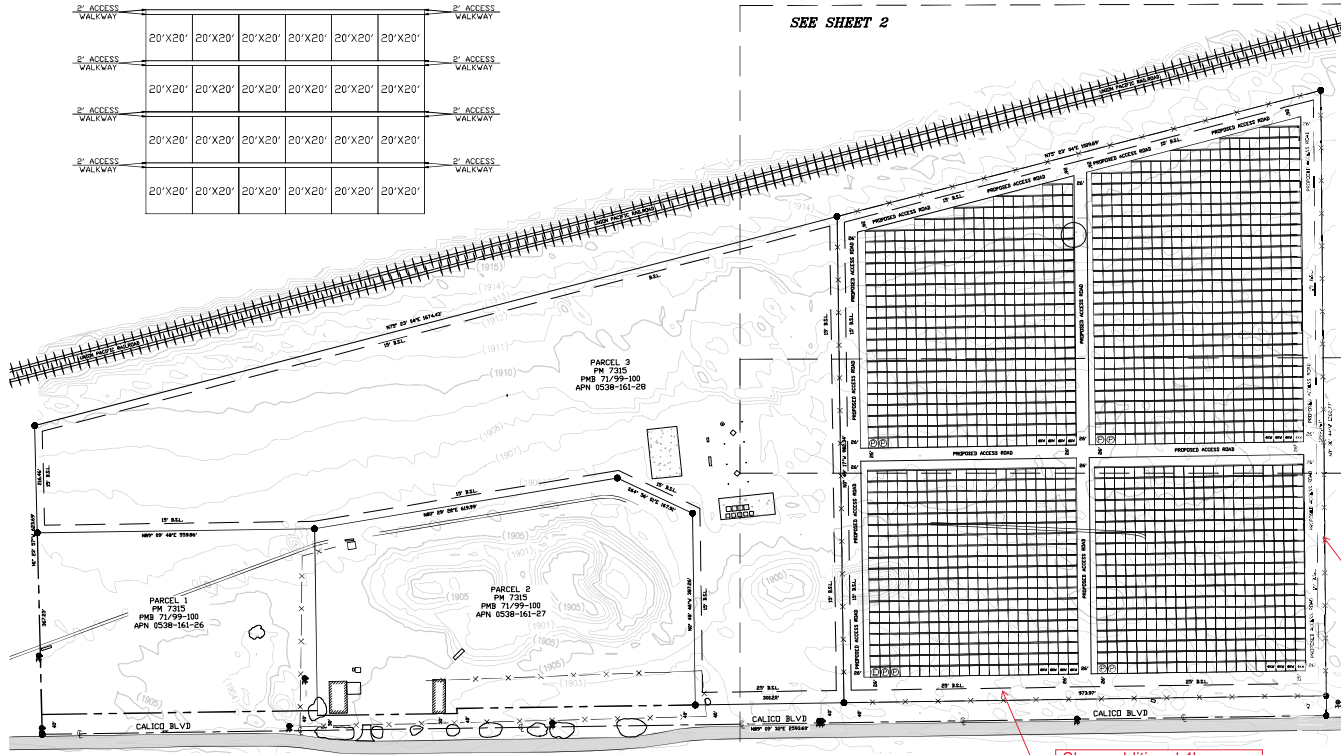
FOR CONDITIONAL USE AND MINOR USE APPLICATIONS ON APN 0538-161-28 AND APN 0538-161-29
TOWNSHIP 10 NORTH, RANGE 2 EAST, SECTION 32, S.B.M.

- LEGEND:**
- +++++ = INDICATES RAILROAD TRACKS
 - = INDICATES BOUNDARY
 - - - = INDICATES CENTERLINE
 - x - x - x = INDICATES PROPOSED CHAIN LINK FENCE
 - - - - - = INDICATES PROPOSED GATE
 - ⊙ = INDICATES PROPOSED 20'X20' PARKING STALL
 - ⊙ = INDICATES PROPOSED 20'X20' ELECTRIC CABINET/METER
 - = TREE CANOPY
 - = POWER POLE (PP)
 - = CONCRETE AREA (OR AS NOTED)

TYP. SECTION

2' ACCESS WALKWAY	20'X20'	20'X20'	20'X20'	20'X20'	20'X20'	20'X20'	2' ACCESS WALKWAY
2' ACCESS WALKWAY	20'X20'	20'X20'	20'X20'	20'X20'	20'X20'	20'X20'	2' ACCESS WALKWAY
2' ACCESS WALKWAY	20'X20'	20'X20'	20'X20'	20'X20'	20'X20'	20'X20'	2' ACCESS WALKWAY
2' ACCESS WALKWAY	20'X20'	20'X20'	20'X20'	20'X20'	20'X20'	20'X20'	2' ACCESS WALKWAY

SEE SHEET 2



CASE NO. _____

Show drainage improvements per approved drainage study

SHEET 3

-Show additional 4' dedication
-show road improvements and driveway meeting standard 128A

PROJECT DATA

OWNER/APPLICANT

FLYING A PROPERTIES, LLC
MARC THIELSEN (OWNER)
562-380-9202
39952 CALICO BLVD
YERMO, CA 92398

SURVEYOR

DANIEL W. MEYER, P.L.S. 9201
6566 CALIENTE RD. SUITE A
OAK HILLS, CA 92344
(760) 954-1719

ASSESSOR'S PARCEL NO.

APN 0538-161-28
APN 0538-161-29

UTILITY PROVIDERS

SOUTHERN CALIFORNIA EDISON
P.O. BOX 800
8631 RUSH STREET
ROSEMEAD, CA 91770
626-302-3377

Basis of Coordinates

The coordinates shown hereon are based upon the California Coordinate System of 1983, CCRS, Zone 5, (epoch 2017.50) in accordance with the California Public Resources Code Sections 8801-8813; said coordinates are based locally upon field-observed ties to the following California Spatial Reference Network, or equivalent stations:

Referenced CSRC Control Stations Connected & Held:

Station	Latitude/North	Longitude/East	Ellip. Hgt (ft)	Source	95% ELLIPSE EAS. (mm)	95% ELLIPSE NAD. (mm)	95% ELLIPSE EAS. (mm)
BSRY	34°51'5.992932"	-117°0'43.128888"	114.19	CSRC	2.04	2.11	6.08
PD04	34°51'12.568241"	-116°40'17.185925"	189.15	CSRC	2.21	2.31	6.36
WDMT	34°41'8.448451"	-116°55'53.950340"	1153.34	CSRC	1.84	2.03	6.12

All measured distances shown hereon are grid distances in reference to CCRS, expressed as U.S. Survey Feet. To calculate ground distances, divide grid distances by the combined factor shown hereon below:

Station	Northing	Easting	Elevation	Ellip. Hgt (FT US)	Combined Scale Factor	Meridian Convergence Angle
100	285753.56	6924533.10	1006.40	1803.09	0.99983971	0°41'23.720"

Vertical Datum

Elevations shown hereon are based on the north american datum or LMS (NAVD83) and were determined by vertically constraining to the published ellipsoid height of the station(s) shown hereon in the table below, per the data sheet computed by the California Spatial Reference Center (CSRC) on 11/13/2017, and derived from the National Geodetic Survey (NGS) gravity model (GEOID18).

Station	Source	95% ELLIPSE (ft US)	Calculated Orthometric Height (FT US)
BSRY	CGNS/BSRY_SGCR_CS1998	6.1	2118.15
PD04	CGNS/HanfordHICS2008	6.4	2036.22
WDMT	CGNS/WDMT_SGCR_CS1999	6.1	4543.30

NO.	REVISIONS	APPROVED	DATE
PLOT PLAN IN THE COUNTY OF SAN BERNARDINO			
PREPARED UNDER THE DIRECT SUPERVISION OF: DANIEL W. MEYER P.L.S. 9201		APPROVED: DATE: END, 09/30/25	

PLOT PLAN

DESIGNED/DRAWN
JMA/TCG
CHECKED
DWM
DATE
04/10/2023
SCALE:
1" = 120'
MSS JOB NO.
23-005
REF JOB NO.
SHEET NO.

1 OF 3



DETAIL OF SOLAR PANEL

Glacier Power and Gas Solar Project
San Bernardino County, California

FIGURE 4

- 10, 1,000 kVA transformers (approximately 84 square-feet at a height of approximately 7 feet)

During site development, an office/construction/trailer will be placed near the access road located from Calico Road, and outside the FEMA 100-year flood plain. This location was previously cleared of all vegetation, and currently remains vacant. After construction, the trailer would serve as an operations and security office.

3.0 EXISTING VISUAL SETTING

3.1 PROJECT SITE

The Project Site and surrounding area occur in a rural desert environment with scattered development. The Project Site is currently vacant and consists of desert shrubs that cover about 35 percent of the site. Power poles run the length of the southern property boundary. The Project Site is relatively flat with an elevation range between 1,900 feet above mean sea level (amsl) near the southeast corner to 1914 feet amsl along the northern property boundary. The Project Site occurs approximately 0.2 miles south of I-15 which sits at an average elevation of 1,940 feet amsl and is approximately 40 feet above the Project's lowest point. The southern foothills of the Calico Mountains, followed by I-15 and the UPRR are visible north of the Project Site as seen in Photograph 1.

Along Calico Boulevard the area is relatively flat as seen in Photographs 2 and 4. Photograph 3 was taken from the interior of the Project Site, in an area that marks the site's lowest point. Power poles run the length of Calico Boulevard, and distant trees that occur on the far-left horizon of Photograph 4, mark the location of a residential gated community that occurs 0.75-miles southwest of the Project Site. Photograph 5 illustrates views of the Project Site adjacent to and near the entry of the residential gated community at the intersection of Calico Boulevard and Sagebrush Lane, and Photograph 6 is a view from the eastbound I-15 looking south toward the Project Site.



Photograph 1: View from within the southern portion of the site looking north toward the I-15 Freeway.



Photograph 2: Looking east near the southern boundary of the Project Site along Calico Boulevard.



Photograph 3: From within the interior of the Project Site looking south.



Photograph 4: From Calico Boulevard looking west toward rural residence.



Photograph 5: From the intersection of Calico Boulevard and Sagebrush Lane looking northeast toward the project site.



Photograph 6: From I-15 eastbound looking south toward the Project Site.

3.2 ADJACENT AREA

The field visit was conducted on a clear day, with no clouds and low humidity resulting in good visibility of the area for several miles in all directions. A tour of the Project Site vicinity was conducted and reviewed for potential visual impacts from the Proposed Project. The visit included a windshield survey along Calico Boulevard, I-15 Freeway and at the intersection of Sagebrush Lane and Calico Boulevard approximately 600 feet north of the entry gate to the residential community located approximately 0.75-miles southwest of the Project Site. From these roadways and the vantage point of a vehicle, the Project Site is visible.

4.0 VISUAL IMPACT ASSESSMENT

4.1 OVERVIEW

This section utilizes the Visual Resources Management (VRM) System established by the U.S. Bureau of Land Management (“BLM”) for objectively rating the quality of visual resources and evaluating changes in scenic quality attributed to a proposed change in land use. The contrast rating system is a systematic process used by the BLM to analyze potential visual impacts of proposed projects and activities. According to BLM’s Visual Resource Management Manual 8431, the basic philosophy underlying the system is that: “The degree to which a management activity¹ affects the visual quality of a landscape depends on the visual contrast created between a project and the existing landscape.” This system is used herein to measure the degree of contrast and impact between the existing landscape and the proposed 10-MW solar array facility. Potential impacts were assessed and mitigation measures are recommended to reduce or limit impacts.

4.2 VISUAL RESOURCE MANAGEMENT OBJECTIVE

The Project Site occurs within an unincorporated area of the County and is not under the jurisdiction of the BLM. According to VRM Manual 8431, in the event that BLM Resource Management Plan generated objectives are not available for an area, then interim VRM classes shall be developed using the guidelines in Handbook H-8410-1.

The purpose of Visual Resource Classes is to establish categories assigned to public lands to serve as: 1) an inventory tool that portrays the relative value of the visual resources; and 2) a management tool that portrays the visual management objectives. There are a total of four classes (I, II, III, and IV) that may be assigned.

Visual resource inventory classes are assigned through the inventory process. Class I is assigned to those areas where a management decision has been made previously to maintain a natural landscape. This includes areas such as national wilderness areas, the wild section of national wild and scenic rivers, and other congressionally and administratively designed areas where decisions have been made to preserve a natural landscape. Classes II, III and IV are assigned based on a

¹ A “management activity” would be for example BLM’s approval of or permitting of a change in land use and in this case, is the terminology of BLM’s Visual Resource Management methodology applied to assessing the visual change represented by construction of the proposed solar facility and related equipment.

combination of scenic quality, sensitivity levels, and distance zones, and accomplished by combining the three overlays for scenic quality, sensitivity levels, and distance zones and using the guidelines within Handbook H-8410-1 to assign the proper class. According to the BLM Handbook H-8410-1, inventory classes are informational and provide the basis for considering visual values, and do not establish management direction and should not be used as a basis for constraining or limiting surface disturbing activities.

4.3 BLM'S VISUAL RESOURCE INVENTORY

The nearest BLM VRI Scenic Quality Rating Unit Polygon area occurs at the southeast corner of Minneola Road and Calico Boulevard immediately southeast of the Project Site. The area was assessed as VRI Class IV with a total score for scenic quality of 6.00². The area was logged as being a low, flat valley floor differentiated by the density of urban development and the level of cultural modification compared with surrounding units. The overall sensitivity level rating is of low value.

Since the Project Site is adjacent to lands assessed as VRI Class IV, the visual impacts of the Proposed Project were assessed under the BLM VRM Class IV category.

4.4 VISUAL RESOURCES CLASS IV OBJECTIVE

VRM Class IV Objective is to provide for management activities which require major modification of the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape can be high. Ground disturbing activities such as removal of vegetation and installation of fencing, solar panels and new landscaping at the entry and southern perimeter may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting.

4.5 KEY OBSERVATION POINTS

The contrast rating is performed from the most critical viewpoints. This is generally along commonly traveled routes or at other likely observation points. Factors considered in selecting the Project's Key Observation Points (KOPs) included: angle of observation, number of viewers, length of time the project is in view, relative project size, season of use, and light condition. Since the Project is a solar facility, it was also rated from several viewpoints representing the following:

- Most critical viewpoints (e.g. views from I-15 and nearby residents); and
- Typical views encountered in representative landscapes.

² Barstow Field Office, SQRU Unique ID SQCAD08000022, originally assessed September 22, 2011 and last updated August 30, 2016.

4.5.1 Existing Visual Setting from KOPs

Figure 5 shows the location of the three KOPs. From the eastbound I-15 Freeway (I-15), just north of the Project Site) and continuing northeast to the offramp of Minneola Road marks views for KOP-1. It was determined that this portion of I-15 would have the most unobstructed views of the Project Site. The east-west trending interstate is elevated approximately 40 feet above the southern boundary of the Project Site. The Project Site is located approximately 0.2 miles south of I-15 in the unincorporated community of Yermo in San Bernardino County (see Figure 1, Regional Location). An approximate 3.5-mile segment of I-15, located 1.5 miles northwest of the Project Site, is designated a State Scenic Highway. From KOP-1 (a segment of I-15 this is directly north of the Project Site) the Project Site is visible. However given the speed of travel (65 miles per hour [mph]) the Project Site is only in view for a few seconds. The Project Site is not disguisable from other parcels as no notable vegetation, buildings, or rock outcroppings occur on-site.

KOP-2 is located along Calico Boulevard as depicted in Figure 5. Travelers along this portion of the paved roadway have a clear view of the Project Site. The southern portion of the Project Site is level with the roadway, then gradually descends an average of five feet before increasing to 1,914 feet near the northern property boundary. The UPRR is visible along the northern boundary followed by the I-15 and finally foothills of the Calico Mountains. Vegetation on-site is similar to the surrounding area and can be described as mostly sparse with an average soil visibility of 85 percent. Manmade objects including street signs, UPRR, I-15, and power lines are visible in the immediate vicinity.

KOP-3 occurs at the intersection of Sagebrush and Calico Boulevard just north of the entry to the gated residential community and looking northeast toward the Project Site. From KOP-3 the existing visual environment includes views of paved roadways, sparse desert vegetation, exposed soils, and open space and views of UPRR and I-15.

4.6 CONTRAST RATING PROCESS

Degree of Contrast Criteria

In order to rate the degree of contrast, a matrix is provided in the KOP worksheets (see Attachment A). The matrix includes four levels of contrast for determining the potential degree of contrast. The four levels of contrast are defined below:

- | | |
|------------------|---|
| None: | The element contrast is not visible or perceived. |
| Weak: | The element contrast can be seen but does not attract attention. |
| Moderate: | The element contrast begins to attract attention and begins to dominate the characteristic landscape. |
| Strong: | The element contrast demands attention, will not be overlooked, and is dominant in the landscape. |



LEGEND

★ Key Observation Points (KOP)

LILBURN
CORPORATION



KEY OBSERVATION POINTS

Glacier Power and Gas Solar Project
San Bernardino County, California

FIGURE 5

Accessing the Degree of Contrast

Four key elements including: form, line, color, and texture, are used to determine the degree of contrast and are described as follows:

Form: Contrast in form results from changes in the shape and mass of landforms or structures. The degree of change depends on how dissimilar the introduced forms are to those continuing to exist in the landscape.

Line: Contrasts in line results from changes in edge types and interruption or introduction of edges, bands, and silhouette lines. New lines may differ in their sub-elements (boldness, complexity, and orientation) from existing lines.

Color: Changes in value and hue tend to create the greatest contrast. Other factors such as chroma, reflectivity, color temperature, also increase the contrast.

Texture: Noticeable contrast in texture usually stems from differences in the grain, density, and internal contrast. Other factors such as irregularity and directional patterns of texture may affect the rating.

When applicable, the following additional factors should be considered when applying the criteria:

Distance: The contrast created by a project usually is less as viewing distance increases.

Angle of Observation: The apparent size of a project is directly related to the angle between the viewer's line-of-sight and the slope upon which the project is to take place. As this angle nears 90 degrees (vertical and horizontal), the maximum areas is viewable.

Length of Time the Project Is In View: If the viewer has only a brief glimpse of the project, the contrast may not be of great concern. If, however, the project is subject to view for a long period, as from an overlook, the contrast may be very significant.

Relative Size or Scale: The contrast created by the project is directly related to its size and scale as compared to the surroundings in which it is placed.

Season of Use: Contrast rating should consider the physical conditions that exist during the heaviest or most critical visitor use season, such as snow cover and tree defoliation during the winter, leaf color in the fall, and lush vegetation and flowering in the spring.

Light Conditions: The amount of contrast can be substantially affected by the light conditions. The direction and angle of lighting can affect color intensity, reflection, shadow, form, texture, and other visual aspects of the landscape. Light conditions during heavy periods must be a consideration in contrast rating.

Recovery Time: The amount of time required for successful revegetation should be considered. Recovery usually takes several years and goes through several phases (e.g., bare ground to grasses, to shrubs, to trees, etc.).

Spatial Relationships: The spatial relationship within a landscape is a major factor in determining the degree of contrast.

Atmospheric Conditions: The visibility of projects due to atmospheric conditions such as air pollution or natural haze should be considered.

4.6.1 Contrast Rating Worksheets

A contrast rating worksheet was completed for each of the three KOPs. In order to properly assess the contrasts between the proposed and existing situation, the worksheet reviews the basic features (i.e., landform/water, vegetation, and structures) and basic elements (i.e., form, line, color, and texture) so that the specific features and elements that create contrast can be accurately identified.

As discussed in BLM Manual 8431, to determine whether the VRM objectives are met, the contrast ratings are compared with the objectives for the VRM Class. For comparative purposes, the four levels of contrast (i.e., none, weak, moderate, and strong) roughly correspond with classes I, II, III and IV, respectively). In making these comparisons, the cumulative effects of all the contrast ratings should be considered. The objective of Class I is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention. In contrast the objective of Class IV is to provide for activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting.

4.7 VISUAL IMPACTS BY KOP

Findings from the worksheets are summarized herein and worksheet details are included in Attachment A of this Visual Impact Assessment.

4.7.1 KOP-1 - Worksheet 1

Proposed elements, as seen from KOP-1 and shown in Figure 5, are small in scale and appear moderate within the background; the proposed solar farm and equipment would be visible but would not significantly distract from the scenic aspects of the area as the use would be relatively small on a 24.12-acre site. Introduction of rectangular forms, thin, vertical and horizontal lines would occur in the midground. The existing landscape including its form, line, color and textures would change and would be isolated along the entry (southern property boundary of the 24.12-acre site).

In addition to utilizing the general guidance for assessing contrast (e.g., form, line, color, and texture), factors considered during the evaluation of the degree of contrast included: distance, angle of observation, relative size and scale, and space relationships (the space surrounding the Project Site is open and includes manmade objects (i.e., roads, irrigation equipment, power poles/lines). The objective of Class IV is to provide for activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. Ground disturbing activities such as removal of vegetation and installation of fencing, solar panels and new landscaping at entry and southern perimeter, may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting.

4.7.2 KOP-2 – Worksheet 2

Proposed elements, as seen from KOP-2 would include the addition of an eight-foot high chain-link fence, solar panels and related equipment, 20-foot setback from the public right-of-way and drought tolerant landscaping. The foreground landscaping, chain-link fence, and rectangular forms of the solar panels including their line, color and texture, would dominate the views from this portion of Calico Boulevard. Travelers would see a significant change for the area north of Calico Boulevard, but only for the length of the Project Site (approximately 975 feet or 0.18 mile) Since there are other manmade elements in the surrounding area ((i.e., paved roadway (linear in form and dark in color), electrical poles and lines extending 40 feet in linear length, and scattered structures, outdoor storage and parked vehicles)) the proposed solar panels and related equipment would not be considered significant in terms of landscape or contrast changes.

The objective of Class IV is to provide for activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. Ground disturbing activities such as removal of vegetation and installation of fencing, solar panels and new landscaping at the project entry and southern perimeter may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting. Given other manmade elements in the landscape, as described above, and the rural setting near the highway, railroad and off-ramps, the project is considered appropriately set.

4.7.3 Visual Simulation 3 – Worksheet 3

Elements of the Proposed Project including an eight-foot high chain-link fence, solar panels and related equipment, and drought tolerant landscaping, would not be distinguishable as individual elements in the landscape as viewed from KOP-3, but would appear as a collective gray, thin, horizontal mass due to the height of the project (panels would be approximately 4-feet in height) and at a distance of 0.75-miles southwest of the Project Site. Residents along the northeastern edge of the residential community could have views of the Project from their backyards. Since there are other manmade elements in the surrounding area (i.e., paved roadway (linear in form and dark in color), electrical poles and lines extending 40 feet in linear length, scattered

structures, railroad and I-15) the proposed solar panels and related equipment would not be considered significantly out of place, especially at 0.75-miles away.

The objective of Class IV is to provide for activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. Ground disturbing activities such as removal of vegetation and installation of fencing, solar panels and new landscaping at the entry and southern perimeter may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting. Given other manmade elements in the landscape, as described above, and the rural setting near the highway, railroad and off-ramps, the project is considered appropriately set.

4.8 CONCLUSIONS AND RECOMMENDATIONS

The contrast worksheets prepared for KOP-1, KOP-2 and KOP-3 indicate that no significant impacts (e.g. extensive grading) would result to the existing form (land/water body). Due to the color (dark gray to gray) of the solar panels, and line (patterns and spacing between the groupings) and texture (smooth verses sandy texture), views from KOP-2 would be most affected. Based on the worksheet completed for KOP-3, the Project would have a weak level of contrast due to distance, existing topography (i.e., level and at the same elevation of the Project Site [i.e., 1,900 feet amsl]) and scale of the Proposed Project (i.e., no structures over 8 feet in height). Views for KOP-1 would not be disconcerting given other manmade structures and uses within the area (i.e., railroad, paved roadways, electrical power poles and lines). Provided the Project Site occurs near areas determined to be in VRM Class IV (an area where major modification to the existing character of the landscape may occur, the level of change to the characteristic landscape can be high), no significant impacts would result from the Proposed Project and no mitigation measures are warranted.

ATTACHMENT A
VISUAL CONTRAST RATING
WORKSHEETS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

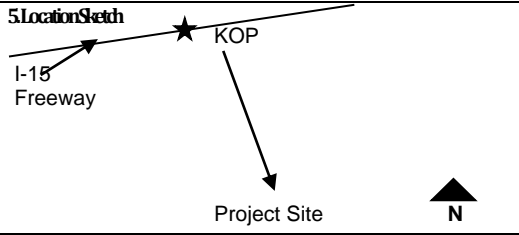
Date February 29, 2024

District N.A.

Resource Area N.A.

Activity (program) 10-Megawatt Solar Facility

SECTION A. PROJECT INFORMATION

1. Project Name Glacier Power and Gas Solar Project	4. Location Township T10N Range R2E Section 33	5. Location Sketch 
2. Key Observation Point KOP-1 From Eastbound I-15 Freeway		
3. VRM Class Class IV		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	Gentle slope to site then relatively flat.	Simple forms with natural patterns	Square, long rectangular form in foreground.
LINE	Horizontal and diagonal	Transitional edge	Union Pacific Railroad in foreground.
COLOR	Foreground includes light tans, pale yellow, muted olive greens; distant blue violets of the mountains, with seafoam turquoise near the horizon transitioning to deeper blues near the zenith of the sky.	Foreground includes olive, deep and light greens, and scattered white, with muted blues, tans and grays in the background.	Deep brown, rust red
TEXTURE	Sandy, small rocky textures with areas of scattered brush texture from vegetation.	Uneven/random rugged to medium grain in an overall thin pattern	Smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	Gentle slope to site then relatively flat.	Isolated to project entry and setbacks	Geometric horizontal and vertical
LINE	Horizontal, diagonal, with thin and faint, vertical and rectangular lines.	Distinguished line and shape near project entry	Vertical and rectangular
COLOR	Foreground includes olive, deep and light greens, and scattered white, with muted blues, tans and grays in the background; introduction of brown in background	Foreground includes olive, deep and light greens, and scattered white. Mid ground to be replaced with dark grey, rectangular shapes of color with tan color showing at rows, creating a grid pattern of color. Muted blues, tans and grays in the background.	Dark grey, non-glare glass, smooth surface, laid out in large groups and separated by rows.
TEXTURE	Land textures will mainly be obscured and visible only within narrow rows between proposed structures.	Sparse vegetation texture will be removed from the area and isolated to portions of site and will include commercial landscape composed of drought tolerate trees, shrubs, plants.	Smooth, coated surface, matte texture.

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST	FEATURES												2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)
	LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)
	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	
Evaluator's Names												Date February 29,	

ELEMENTS	Form		✓					✓			✓			2024 Natalie Patty
	Line		✓					✓			✓			
	Color		✓					✓			✓			
	Texture		✓					✓			✓			

SECTIOND. (Continued)

Comments from item 2.

Proposed elements, as seen from KOP-1 and shown in Figure 5, are small in scale and appear moderate within the background; the proposed solar farm and equipment would be visible but would not significantly distract from the scenic aspects of the area as the use would be relatively small on a 24.12-acre site. Introduction of rectangular forms, thin, vertical and horizontal lines would occur in the midground. The existing landscape including its form, line, color and textures would change and would be isolated along the entry (southern property boundary of the 24.12-acre site).

In addition to utilizing the general guidance for assessing contrast (e.g., form, line, color, and texture), factors considered during the evaluation of the degree of contrast included: distance, angle of observation, relative size and scale, and space relationships (the space surrounding the Project Site is open and includes manmade objects (i.e., roads, irrigation equipment, power poles/lines). The objective of Class IV is to provide for activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. Ground disturbing activities such as removal of vegetation and installation of fencing, solar panels and new landscaping at entry and southern perimeter, may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date February 29, 2024

District N.A.

Resource Area N.A.

Activity (program) 10-Megawatt Solar Facility

SECTION A. PROJECT INFORMATION

1. Project Name
Glacier Power and Gas Solar Project

2. Key Observation Point
KOP-2 along Calico Boulevard

3. VRM Class
Class IV

4. Location

Township T10N

Range R2E

Section 33

5. Location Sketch

Project Site

Calico Boulevard

KOP 2

N

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	Gentle slope north	Simple forms with natural patterns	Definite; rectangular forms, bold, vertical line.
LINE	Horizontal	Transitional edge	Bold horizontal line
COLOR	Foreground includes light tans, sage, cool greens.	Foreground includes olive, deep and light greens, and scattered tan. Midground and background is neutral beige.	Gray
TEXTURE	Sandy, small rocky textures with areas of scattered brush texture from vegetation in the foreground and midground.	Uneven/random rugged to medium grain in an overall thin pattern	Smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	No change	Sparse desert shrubs to be removed, commercial landscaping at entry	Geometric, rectangular shape, horizontal and vertical in foreground, vertical line of freeway to remain visible.
LINE	Horizontal; no change	Bold, irregular in both the foreground and middle ground; no change	Bold, regular shape in the foreground, linear pattern of freeway to remain visible in midground.
COLOR	Dark gray with clear rows of tan.	Cream, green and deep hunter green, with olive and taupe/olive in the background; no change	Dark gray with rows of tan in foreground, gray paved freeway to remain visible in midground.
TEXTURE	Medium texture	Medium to rugged; no change	Smooth texture in foreground and mid-ground.

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1.

DEGREE OF CONTRAST

LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
	✓				✓				✓		
	✓				✓				✓		
	✓				✓				✓		
	✓				✓				✓		

2.

Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)

3.

Additional mitigating measures recommended? ☐ Yes ☒ No (Explain on reverse side)

Evaluator's Names
Natalie Patty

Date February 29, 2024

Comments from item 2.

Proposed elements, as seen from KOP-2 would include the addition of an eight-foot high chain-link fence, solar panels and related equipment, 20-foot setback from the public right-of-way and drought tolerant landscaping. The foreground landscaping, chain-link fence, and rectangular forms of the solar panels including their line, color and texture, would dominate the views from this portion of Calico Boulevard. Travelers would see a significant change for the area north of Calico Boulevard, but only for the length of the Project Site (approximately 975 feet or 0.18 mile) Since there are other manmade elements in the surrounding area (i.e., paved roadway (linear in form and dark in color), electrical poles and lines extending 40 feet in linear length, and scattered structures, outdoor storage and parked vehicles) the proposed solar panels and related equipment would not be considered significant in terms of landscape or contrast changes.

The objective of Class IV is to provide for activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. Ground disturbing activities such as removal of vegetation and installation of fencing, solar panels and new landscaping at entry and southern perimeter may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting. Given other manmade elements in the landscape, as described above, and the rural setting near the highway, railroad and off-ramps, the project is considered appropriately set.

Additional Mitigating Measures (See item 3)

No mitigation measures are proposed.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

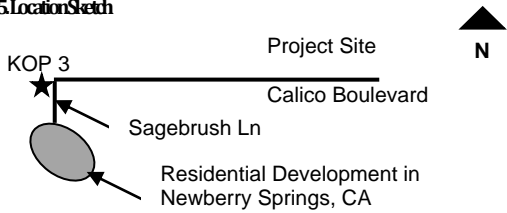
VISUAL CONTRAST RATING WORKSHEET

Date February 29, 2024

District N.A.

Resource Area N.A.

Activity (program) 10-Megawatt Solar Facility

SECTION A. PROJECT INFORMATION		
1. Project Name Glacier Power and Gas Solar Project	4. Location Township T10N Range R2E Section 33	5. Location Sketch 
2. Key Observation Point KOP-3 at the intersection of Sagebrush Ln and Calico		
3. VRM Class Class IV		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION			
1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	Flat with slope to the northeast	Simple forms with natural patterns after right-of-way in the foreground	Linear form extending east to west
LINE	Horizontal	Transitional edges	Bold horizontal line
COLOR	Foreground includes light tans and gray	Foreground includes olive, and light greens, and large areas of tan. Midground and background is neutral sage.	Gray
TEXTURE	Sandy, with areas of smooth surface.	Uneven/random rugged to medium grain in an overall thin pattern	Smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION			
1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	No change	Simple forms with natural patterns after right-of-way in the foreground	Horizontal shape in the midground, other structures in area would still be visible.
LINE	Horizontal; no change	Natural patterns in both the foreground and middle ground; no change	Collectively the panels would be a linear, horizontal line.
COLOR	Dark gray	Cream, green and deep hunter green, with olive and taupe/olive in the background; no change	Gray thin mass in the midground.
TEXTURE	Smooth	Medium to rugged; no change	Smooth texture in mid-ground.

SECTION D. CONTRAST RATING <input type="checkbox"/> SHORT TERM <input checked="" type="checkbox"/> LONG TERM													
1. DEGREE OF CONTRAST		FEATURES											
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form		✓				✓				✓		
	Line		✓				✓				✓		
	Color		✓				✓				✓		
	Texture		✓				✓				✓		
2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)													
3. Additional mitigating measures recommended? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Explain on reverse side)													
Evaluator's Names Natalie Patty										Date February 29, 2024			

Comments from item 2.

Elements of the Proposed Project including an eight-foot high chain-link fence, solar panels and related equipment, and drought tolerant landscaping, would not be distinguishable as individual elements in the landscape as viewed from KOP-3, but would appear as a collective gray, thin, horizontal mass due to the height of the project (panels would be approximately 4-feet in height) and at a distance of 0.75-miles southwest of the Project Site. Residents along the northeastern edge of the residential community could have views of the Project from their backyards. Since there are other manmade elements in the surrounding area (i.e., paved roadway (linear in form and dark in color), electrical poles and lines extending 40 feet in linear length, scattered structures, railroad and I-15) the proposed solar panels and related equipment would not be considered significantly out of place, especially at 0.75-miles away.

The objective of Class IV is to provide for activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. Ground disturbing activities such as removal of vegetation and installation of fencing, solar panels and new landscaping at the entry and southern perimeter may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting. Given other manmade elements in the landscape, as described above, and the rural setting near the highway, railroad and off-ramps, the project is considered appropriately set.

Additional Mitigating Measures (See item 3)

No mitigation measures are proposed.